

On Beck's Intervention Effects*

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1. Introduction

Recently the phenomenon of quantifier intervention against LF *wh*-movement illustrated in (1) and (2) has attracted much attention in the literature (see Beck 1996, Beck and Kim 1997, Choi 2003, Kim 2002, Kuno and Kim 2003, M. Lee 2001, D.-W. Lee 2001, Miyagawa 2002, Pesetsky 2000, Tanaka 2003 among others):¹⁾

- (1) a. ***Amwuto** *mwues-ul* sa-ci **anh-ass-ni?**
 anyone what-ACC buy Neg-PST-Q
 b. *Mwues-ul* **amwuto** sa-ci **anh-ass-ni?**
 'What did no one buy?'
(2) a. *Nwuka* **amwuto** chotayha-ci **anh-ass-ni?**
 who anyone invite Neg-PST-Q
 b. ***Amwuto** *nwuka* chotayha-ci **anh-ass-ni?**
 'Who didn't invite anyone?'

Assuming that *wh*-in-situ has to be moved from its S-structure position to an LF landing site outside the scope of negation, Beck (1996) and Beck and Kim (1997; hereafter B&K) generalized the phenomenon as: An intervening negative quantifier blocks LF movement. This generalization, which is known as Beck's Intervention Effect (hereafter BIE), has been formulated in various syntactic guises in the literature. After reviewing previous proposals and their implications, this squib shows that it is neither the case that the BIE is observed in any sorts of covert *wh*-movement nor the case that any intervening negative quantifiers trigger the BIE. It also provides a set of data where some other factors such as specificity and D-linking play a crucial role with respect to obviating the BIE. Reviewing the previous analyses illustrates non-trivial phenomena in syntactic proposals: (i) Previous studies crucially rely on a set of data, judgements of whose acceptability status are drastically different (even opposite) depending on each proposal. If it is not a mere coincidence, these idiolectal variations regarding the judgements of key data themselves also require an

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¹⁾ The phenomenon itself is also observed in Hoji (1985) and Sohn (1994).

explanation; (ii) Some linguistic structures does not receive binary judgements on which linguists traditionally rely but gradient linguistic judgements.

2. Syntactic Solutions on the Intervention Effect and their implication

2.1. Beck's Intervention Effects in Beck and Kim (1997)

Observing that Korean exhibits the BIE where an NPI c-commands *wh*-in-situ, B&K adopt the Minimal Negative Structure Constraint (hereafter, MNSC) in Beck (1996):

(3) Minimal Negative Structure Constraint (MNSC)

If an LF trace \bar{t} is dominated by an NIB α , then the binder of \bar{t} must also be dominated by α .

(N.B. The first node that dominates a negative quantifier, its restriction, and its nuclear scope is a Negative-induced barrier (NIB).)

Sentences in (1) and (2) are schematically represented as (4) and (5) respectively:

(4) a.*[_{CP} what_i [_C [_{VP(=NIB)} [_{VP} NPI [_{V'} t_i^{LF} buy]] Neg] Q]] (B&K (40b))

b. [_{CP} what_i [_C [_{VP} t_i^{LF} [_{VP(=NIB)} [_{VP} NPI [_{V'} t_i buy]] Neg] Q]] (B&K (42))

(5) a. [_{CP} who_i [_C [_{VP} t_i^{LF} [_{V'(=NIB)} [_{V'} NPI invite] Neg] Q]] (B&K (44))

b.*[_{CP} who_i [_C [_{VP(=NIB)} [_{VP} NPI_j [_{VP} t_i^{LF} [_{V'} t_j invite]] Neg] Q]] (B&K (46))

The NIB in (4a) and in (5b) that dominates an LF trace t_i^{LF} does not dominate the *wh*-phrase, violating the MNSC. (4b) shows that the NIB does not block overt movement of *wh*-phrase -i.e., the sentence is acceptable despite the fact that the NIB dominating the trace of a *wh*-phrase after overt movement does not dominate the *wh*-phrase. To put the proposal (3) in another way, an NIB blocks only covert movement of *wh*-phrases. The MNSC correctly captures the contrast shown in (2), but it comes with a "strong" prediction: if a *wh*-phrase is c-commanded by a clause-mate NPI at S-structure, the given sentence is always predicted to be unacceptable violating the MNSC.

Even though there is little doubt that the descriptions in (6) are true, it is not obvious whether we can extend the statements in (6) to those of (7):²⁾

(6) a. There is a clear contrast in sentences of the patterns shown in (1) and (2).

²⁾ I am indebted to an anonymous reviewer for discussion of (7).

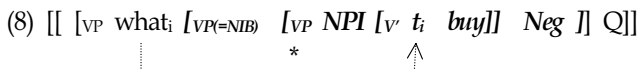
- b. A quantificational expression like an NPI plays a role as an intervener in interpreting *wh*-expressions.
- (7) a. Any sorts of covert *wh*-movement (e.g., raising, lowering) are blocked by an intervening negative quantifier.
- b. Covert movement of any *wh*-expressions is blocked by an intervening negative quantifier.
- c. Any negative quantifier expressions block covert *wh*-movement.

In what follows, we will investigate whether the extension of (6) to (7) can be made. If the answer is negative, the already existing suggestions for the BIE should be reformulated to exclude possible interpretations that may cover the claim in (7).

2.2. Tanaka (2003)

Let us see more specifically what the proposal in B&K assumes and implies. B&K crucially differentiate overt movement from covert movement: Only the trace of covert movement is relevant to MNSC violation. Otherwise, (b) sentences in (1) and (2) would have the same acceptability status with (a) sentences. At the same time, different acceptability status of a scrambled sentence in (1b) from the one in (1a) shows that scrambling (at least local scrambling) *does not have to* be undone contra Saito (1992). Moreover, the fact that scrambling in (2b) results in violation of the MNSC further shows that scrambling *should not* be undone, which is indeed one of the key assumptions in B&K.³⁾

Keeping this in mind, let us first consider whether the MNSC is a condition on representation or on derivation. As Tanaka (2003: 318) points out, unless the representation distinguishes traces of overt movement from those of covert movement by an extra stipulating device such as t^{LF} and t^{SS} , the MNSC cannot be a condition on representation. If this means that the MNSC is a constraint on derivation at the LF component, it will support one of B&K's assumptions on scrambling: Scrambling should not be undone. Theoretically undoing of scrambling crossing over the NIB should be banned if the NIB is visible to the LF movement. In (1b), for example, *what* would cross the NIB at LF as illustrated in (8):



Here we can see that, as far as local scrambling of a *wh*-phrase is concerned, the analysis

³⁾ It is generally assumed that scrambling is a nonunitary phenomenon: Local scrambling has A-movement properties while long distance scrambling exhibits A'-movement properties (see Kim 1996, Mahajan 1990, Saito 1992). Reconstruction is regarded as a process that applies to operator-variable movement only. If these two assumptions are right, it can be predicted that reconstruction should apply only to long-distance scrambling of an operator.

in B&K makes it clear that scrambling cannot be undone.

Now let us consider a long distance scrambling case, which triggers what Tanaka (2003) calls B&K's paradox:⁴

- (9) a. *Mwues-ul_i [_{NIB} *amwuto* [*John-i* *t_i* *sa-ss-nunci*] *mwutci* *anh-ass-ta*].
 What-ACC anybody John-NOM buy-PST-Q ask Neg-PST-DC
 'Nobody asked what John bought.' (Tanaka 2003: 317)
- b. Nwukwu-lul_i [_{NIB} *amwuto* [*Mira-ka* *t_i* *po-ass-nunci*] *mwutci* *anh-ass-ta*].
 who-ACC anybody Mira-NOM see-PST-Q ask Neg-PST-DC
 'Nobody asked whom Mira saw' (B&K 1997: 367)

Judging the sentences of the pattern in (9), which Tanaka (2003) judges to be unacceptable, as acceptable, B&K claim that reconstruction of a scope bearing element, in particular *nwukwu-lul* in their example (9b), must be allowed. In other words, unlike local scrambling, B&K claim that a long distance scrambled *wh*-phrase in (9b) has to be reconstructed resulting in the following LF:

- (10) [_{VP} (=NIB) [_{VP} *NPI* [_{V'} [_{CP} *who_i* [_{C'} [_{VP} *Mira* [_{V'} *t_i* *see*]] *Q*]] *ask*] *Neg*] (B&K (67))
- ↑

This way of allowing reconstruction gives a negative answer to extension of the generalization in (7a): Any sorts of covert *wh*-movement are blocked by an intervening negative quantifier. While the NIB in (1a) does block covert *wh*-movement of *mwuesul* to the spec of CP, the NIB in (10) does not block reconstruction of long distance scrambling in (9b). As far as the MNSC is concerned, (9b) is safe since the material to be reconstructed does not contain an LF trace (B&K: 368). This line of explanation in B&K is paradoxical, as Tanaka (2003: 318) argues: how can a scrambled *wh*-phrase move back inside the NIB when the MNSC prevents a *wh*-phrase from moving out of the NIB?

Criticising B&K's paradox, Tanaka (2003) shows that his Linear Crossing Constraint

⁴ The acceptability judgements recorded in (9a) and (9b) are that of Sohn (1994) and that of B&K respectively. This discrepancy itself is a problem to be discussed in the studies of BIE. An anonymous reviewer judges that the acceptability status of the sentence (9b) is something in between (ia) and (ib):

- (i) a. Amwto Mira-ka nwukwu-lul po-ass-nun-ci mwut-ci anh-ass-ta.
 anybody Mira-NOM who-ACC see-PST-Q ask Neg-Past-DC
 'Nobody asked who Mira saw.'
- b. *Amwuto Mira-ka nwukwu-lul manna-ass-ta-ko malha-ci anh-ass-ni?
 anybody Mira-NOM who-ACC meet-PST-DC-COMP say Neg-PAST-Q
 'Who did nobody say Mira meet?'

As mentioned by the reviewer, if the sentence in (9b) were ungrammatical, B&K could employ their MQSC as a barrier that blocks lowering of *amwuto*. Also it needs to be noted that what we can see here is the reviewer's gradient linguistic judgement regarding these data (i.e., (ia) > (9) > (ib)).

(LCC) on A'-dependencies is empirically superior to B&K's analysis with respect to the long distance scrambling and multiple scrambling in particular. The LCC states that nesting A'-dependencies are permissible but crossing A'-dependencies are not as illustrated in (11). (11a) and (11b) are schematic representations of (1a) and (1b) respectively (Tanaka 2003: 316):⁵⁾

- (11) a. ?*anybody-t_j what-ACC-t_i bought-NEG-Op_j-PST-Q-Op_i
 └──┘
 └──┘
 b. [what-Acc-t_i]_i [anybody t_j] t_i bought-NEG-Op_j-PST-Q-Op_i
 └──┘
 └──┘

One of the crucial difference between the MNSC and the LCC lies in the level of its application. The LCC, unlike the MNSC, applies at S-structure.⁶⁾ As far as acceptability status of long distance scrambling sentences is the same as that of Tanaka's (2003), Tanaka's claim that the BIE is sensitive to the S-structure linearity has a better prediction than the MNSC that applies to LF-movement. His LCC would face a problem, however, if there are speakers who judge sentences of the pattern in (9) as acceptable. In (9), we can see crossing A'-dependencies violating the LCC.

An important thing that we should not miss here is idiolectal variation shown in acceptability judgements of the sentences in (9). As Tanaka (2003) admits, there are drastic variations of the judgements: Sohn (1994) judges sentences of the pattern in (9) unacceptable while B&K judge them acceptable. Tanaka (2003) mentions that their Japanese counterparts are unacceptable while the reviewer of his paper judges their Korean version acceptable. Why is there such a difference? Is there any way to account for the difference? It is natural if different proposals make different predictions on a certain set of data. However, it is not trivial at all if each proposal is crucially relying on empirical data which are judged completely differently from speaker to speaker.

In fact, the following example shows that Tanaka's (2003) claim of empirical strength of the LCC is also questionable. It is not the case that the LCC always makes a correct prediction since it would predict that the crossing A'-dependencies in (12) results in unacceptability of the sentence (cf. Kuno and Whitman 2001, Kuno and Kim 2003):⁷⁾

⁵⁾ Following Watanabe (1992), Tanaka (2003) assumes that NPIs and wh-phrases in situ undergo invisible movement.

⁶⁾ In fact, assuming the scrambling cannot be undone, Tanaka (2003) claims that his LCC might as well applies at LF also, since there will not be any difference in linearity.

⁷⁾ It needs to be noted that the sentence in (12) also has idiolectal variations. For instance, an anonymous reviewer judges a scrambled version of (12) in the following is better than (12) itself:

- (i) Na-nun i-pen sihem-eyse myechpen muncey-lul_i haksayng-tul amwuto t_i
 I-TOP this exam-in which-number question-ACC students anyone
 mos phwul-ess-nun-ci alko-iss-ta.
 cannot solve-PST-Q know-be-DC

- (12) Na-nun i-pen sihem-eyse haksayng-tul amwuto myechpen muncey-lul
 I-TOP this exam-in students anyone which-number question-ACC
 mos phwul-ess-nun-ci alko-iss-ta.
 cannot solve-PST-Q know-be-DC
 '(lit.) I know which-number question no students could solve in this exam.'
- (13) ... amwuto_i ... myechpen mwuncey_j ... OP_i ... OP_j
-

In this section, we have seen that B&K themselves provide a negative answer to extension of (6) to (7a): Some, but not all, sorts of covert *wh*-movement are blocked by the NIB. We have also provided a sentence in (12) that shows (7b) and (7c) may not be true either. There are some sorts of *wh*-expressions, for instance *myechpen mwuncey* in (12) that does not trigger the BIE, implying that (7b) cannot be necessarily true. It may also be the case that a certain type of NPI weakens the BIE as we can see in (12). In this case, a specified NPI seems to ameliorate the BIE. This again makes it impossible to maintain (7c): Any NPI expressions block covert movement. Before we proceed to the discussion of sentences of the (12) type in detail, let us investigate another factor that blocks the extension of (6) to (7). This section also have shown drastic variation in acceptability status of key sentences on which proposals of previous studies are based.

2.3. Miyagawa (2002) and Choi (2003)

B&K do not seem to distinguish adjuncts from arguments with respect to the MNSC:

- (14) a.*Suna-ka amwuto etieyse manna-ci anh-ass-ni?
 Suna-NOM anyone where meet Neg-PST-Q?
 'Where did Suna meet no one?' (B&K (12))
- b. Etieyse Suna-ka amwuto manna-ci anh-ass-ni?
 where Suna-NOM anyone meet Neg-PST-Q? (B&K (13b))

When an adjunct *wh*-phrase *etieyse* is c-commanded by an NPI, its covert movement to the sepc of CP will be blocked. Hence, (14a) is predicted to be unacceptable, violating the MNSC while its scrambled counterpart in (14b) is not. Based on these, B&K assume that adjunct *wh*-phrases pattern the same as argument *wh*-phrases with respect to the MNSC.

As for the interpretation of adjunct *wh*-phrases, there has been an observation that *why* behaves differently from other adjuncts as illustrated in the following (Cho 1998, Choi 2003, Kuno and Kim 2003, Miyagawa 2002):

Here again we see gradient in acceptability. See section 3 and footnote 10 for more discussions of (12).

- (15) a.*Amwuto ku-chayk-ul eti-eyse sa-ci anh-ass-ni?
 anyone the book-ACC where buy Neg-PST-Q
 'Where didn't anyone buy the book?'
 b.*Amwuto ku-chayk -ul encey sa-ci anh-ass-ni?
 anyone the book-ACC when buy Neg-PST-Q
 '*When didn't anyone buy the book?'
 c.*Amwuto ku-chayk -ul ettehkey sa-ci anh-ass-ni?
 anyone the book-ACC how buy Neg-PST-Q
 '*How didn't anyone buy the book?'
 d. Amwuto ku-chayk -ul way sa-ci anh-ass-ni?
 anyone the book-ACC why buy Neg-PST-Q
 'Why didn't anyone buy the book?'

In all the four examples above, an NPI *amwuto* c-commands a *wh*-expression. If it is the case that all the *wh*-expressions need to undergo covert movement for a proper interpretation, then the LF of the above examples in (15) will be:

- (16) * [CP wh_i [C [VP(=NIB) [VP NPI t_i^{LF} buy] Neg] Q]] (B&K (40b))
- ^
*
]

The prediction of the MNSC is borne out in (15a-c). Interestingly, (15d) violates the MNSC as much as (15a-c) do, and therefore, it is predicted to be unacceptable. Contrary to this prediction, there does not seem to be anything wrong with the sentence. This again shows that an extended interpretation of the MNSC in (7b) - i.e., Covert movement of any *wh*-expressions is blocked by an intervening negation - may not be maintained.

Regarding this obviation of the MNSC *way* 'why', one might claim that *way* 'why' has a different status from other *wh*-expressions. Such an analysis is found in Choi (2003) and Miyagawa (2002). For example, Miyagawa (2002) claims that, unlike other *wh*-expressions that require movement of quantificational elements from the *wh*-phrase to C, in the case of *why*, the quantificational part and its restriction portion are always separate:

- (17) a. Why did no one buy the book?
 b. ... no one bought the book [because of x]
 (18) [CP what reason x_i [[TP [VP(=NIB) NPI t_i^{LF} buy Neg] [because of x]] Q]

Adopting Rizzi's (1990) assumption that *why* is a sentential modifier as in (17), Miyagawa (2002) hypothesizes that *why* can obviate violation of the MNSC as schematically represented in (18): The NIB in (18) does not intervene between "what reason x" and "because of x". If this is the case, we can still maintain (7b) since *way* does not cross over a negation in (18).

On the other hand, Miyagawa's (2002) analysis predicts that if a long distance

movement is involved, the Intervention Effect appears as illustrated in (19):

- (19)*Amwuto [John-i way saimha-ess-ta-ko] malha-ci anh-ass-ni?
 Anyone John-NOM why resign-PST-DC-COMP say Neg-PST-Q
 'Why didn't anyone say that John resigned?'

Miyagawa (2002: 61)'s summary of the phenomena, which is based on Pesetsky's (2000: 67) Intervention effect in (20), is shown in (21):⁸⁾

- (20) Intervention Effect (universal characterization)
 A semantic restriction on a quantifier (including *wh*) may not be separated from that quantifier by a scope-bearing element.
- (21) a. Argument *wh*-in-situ
 *_{[CP Qi [QUIB [ti restriction]]]}
 b. *why* in local clause
 [_{CP} [what reason x]_i [[_{TP} ... QUIB ti ...]][because of x]]
 c. *why* in long-distance construal
 *_{[CP [what reason x]_i [_{TP} QUIB ... [_{CP}[_{TP}... ti ...] [because of x]]]]]}

What needs to be noted here is that if *wh*-arguments are involved as schematically represented in (21a), the BIE is expected without any exception. Contrary to his prediction, the sentence in (12) is not unacceptable at all. As for cases with *wh*-adjuncts, Kuno and Kim (2003) provide various data sets whose acceptability status are in the range of "acceptable," "awkward," and "marginal":⁹⁾

- (22) a.*Amwuto eti-eyse mwulken-ul sako-sip-e-ha-ci anh-ni?
 anyone where-at thing-ACC buy-want-do Neg-Q
 'Where does nobody want to shop?'
 b.^{??}Amwuto i-paykhwacem eti-eyse mwulken-ul sako-sip-e-ha-ci anh-ni?
 anyone this mall where-at thing-ACC buy-want-do Neg-Q

⁸⁾ Showing that other quantifiers have an effect very similar to that of negation, Beck (1996) and B&K claim that the MNSC is a subcase of MQSC:

(i) MQSC Minimal Quantified Structure Constraint (MQSC)
 If an LF trace $\bar{\mu}$ is dominated by an QUIB μ , then the binder of $\bar{\mu}$ must also be dominated by μ .
 (N.B. The first node that dominates a quantifier, its restriction, and its nuclear scope is an Quantifier Induced Barrier (QUIB).)

⁹⁾ As mentioned by an anonymous reviewer, gradience represented in (22) can merely be a matter of acceptability but that of grammaticality. There have been many studies that emphasizing the status of relevant linguistic data that come in varying degrees of acceptability (Keller 2000, Kuno and Kim 2003, Prince and Smolensky 1993, and numerous studies under the optimality theory framework). Aside from theoretical backgrounds or details of those studies, it is clear that syntactic constraints that control the generation of grammatical outputs should at least allow derivation of the sentences in (22b-d).

- 'Where in this mall does nobody want to shop?'
- c. [?]Amwuto i-paykhwacem eti-eyse mwulken-ul sako-sip-e-ha-ci anh-nun-ci
 anyone this mall where-at thing-ACC buy-want-do Neg-Q
 a-ni?
 know-Q
 'Do you know where in this mall nobody wants to shop?'
- d. ^(?)Amwuto i-cwung etten-kakey-eyse mwulken-ul sako-sip-e-ha-ci
 anyone this-among which store-at things-ACC buy-want-do
 anh-nun-ci a-ni?
 Neg-Q know-Q
 'Do you know where in these stores nobody wants to shop?'

The sentences in (22b-d), which fall into the generalization of Miyagawa (2002), are not totally unacceptable. In sum, if we take Miyagawa (2002), we can still keep the statement in (7b) as far as *way* 'why' is concerned. However, this still contains a problem: There are sentences with *wh*-adjuncts other than *way* 'why' (as well as those with *wh*-arguments) that do not show the BIE in an expected degree.

On independent grounds, Choi (2003: 104) also proposes a syntactic solution for the contrast in (15): *wh*-expressions in Korean are indefinite except for *way* 'why', and *way* undergoes movement for its scope, while other *wh*-expressions employ unselective binding for their scope interpretation. He assumes that there is a QM (question morpheme) *ni* that projects to IP and claims that if the scope of the QM is below the NPI, the sentence invariably fails. The LF structures of the sentences in (15a-c) and that of the sentence in (15d) are represented as follows in Choi (2003: 104):

- (23) a. *nwukwu* 'who', *mwues* 'what', *encey* 'when', *eti* 'where', and *etehkey* 'how'
 *_{[IP NPI [IP QM_i [VP *wh*-expression_i]]]}
 b. *way* 'why'
 [_{CP} why_i [_{CP} QM_j [_{IP} NPI [_{I'} t_j t_i]]]]

What Choi (2003) claims is that the NPI cannot appear higher than QM (which is placed in I). *Way* 'why' is exceptional in that it is a propositional adjunct *wh*-expression that does not have its own quantificational force. Therefore it moves to the Spec of CP position at LF.

Let us examine relevant patterns in detail. First, Choi's (2003) proposal predicts that a *wh*-expression following an NPI does not result in unacceptability of the sentence if the NPI is lower than the QM (Choi 2003: 108):

- (24) John-i amwu-eykeyto mwues-ul cwu-ci anh-ass-ni?
 John-NOM anyone-DAT what-ACC give Neg-PST-Q
 'What did John give to no one?'

(25) [IP NP-NOM [I QM_i [VP V NPI-DAT *wh-expression*_i]]]

Choi (2003: 107) claims that (24) is an example which shows his analysis is empirically superior to B&K since this will be ruled out as ungrammatical in B&K *contrary to the fact*. If the acceptability of the sentence in (24) were *the fact* that all agree with, Choi's (2003) empirical superiority would remain plausible. What is interesting here is B&K illustrate sentences of the exactly same pattern and claim that their prediction by the MNSC is borne out since they are unacceptable:

(26) *Suna-ka amwu-eykeyto mwues-ul poyecwu-ci anh-ass-ni? (B&K (14a))
 Suna-NOM anyone-DAT what-ACC show Neg-PST-Q
 'What did Suna show to no one?'
 (27)*[CP what_i [C [VP(=NIB) NPI t_i^{LF} show Neg] Q]]

Here again, we see a drastic contrast in the acceptability of critical sentences with the same pattern as we have seen in (9).

There is another case where Choi's (2003) prediction differs from B&K's. Choi's (2003) analysis predicts that (14), repeated below as (28) for ease of reference, should be acceptable. This is the sentence which B&K consider unacceptable, and attempt to account for by their MNSC:

(28) *Suna-ka amwuto etieyse manna-ci anh-ass-ni?
 Suna-NOM anyone where meet Neg-PST-Q
 'Where did Suna meet no one?' (B&K: 342)

Choi's analysis would predict that (28) is as good as (24) since *amwuto* is lower than QM that projects to IP. Choi's (2003) LF representation of (28), represented in (29), can feed the correct semantic interpretations for the *wh*-question.

(29) [IP Suna-NOM [I QM_i [VP V NPI-ACC *wh-expression*_i]]]

In fact, Choi (2003) claims that (28) is acceptable, hence supports his analysis. As mentioned, B&K claim that (28) is unacceptable, which again supports their analysis.

In the case of *way* 'why', Choi (2003) claims that the acceptability of the sentence will not be affected by the presence of an NPI: *why* must move to the spec of CP position, which necessitates movement of the QM to C. Hence, the QM is always higher than the NPI, which is somewhere in IP. This also contradicts Miyagawa's (2002) claim with respect to *way* 'why' in long distance construal.

Like other syntactic constraints on the phenomena, Choi's (2003) constraint is too strong to assign legitimate interpretations to all the acceptable sentences. Needless to say,

various acceptability judgments represented in (22) cannot be accounted for in Choi (2003).

3. Factors to be Considered

So far we have seen (i) that there are cases where all the syntactic analyses that we have examined make a false prediction (e.g., (12), (22b-d)); (ii) that acceptability status of the relevant examples are sometimes represented as a continuum, implying there are other factors to be considered in addition to the ones that we have discussed from previous studies (e.g., (22a-d)); (iii) that syntactic analyses that we have examined are based on sets of data whose acceptability status shows drastic idiolectal variations from speaker to speaker (e.g., (9), (15), (24), (26), and (28)). Based on these, in section 2 we reached the conclusion that extension of the description in (6) to any of the variations in (7) is not possible and that previous accounts of the BIE should be reconsidered considering (i)-(iii). In what follows, let us see what else can be the factors involved in determining the acceptability of the sentences with an NPI and a *wh*-in-situ.

M. Lee (2001) observes that specificity of an NPI is a factor that makes relevant sentences obviate the BIE even if the NPI c-commands a *wh*-in-situ:

- (30) Ku pan haksayng-tul amwuto mwues-ul ilk-ci anh-ass-ni?
 that class student-PL anyone what-ACC read Neg-PST-QS
 'What did no student of the class read?'

She claims that the intervention effect does not appear when specific NPIs are involved: Her proposal does not mark (30) unacceptable because *ku pan haksayng-tul amwuto* is specific. Her proposal still leaves a question: Why is a specific NPI transparent to the interpretation of *wh*-phrases and how? Moreover, it does not account for sentence whose acceptability status are represented in a continuum as illustrated and discussed in (22).

Regarding this, we argue in Kuno and Kim (2003) that it is not the case that there is a dichotomy between nonspecific NPIs and specific NPIs, but a continuum from totally nonspecific to fully specific NPIs, and that not only the nonspecificity/specificity of the NPIs, but also the nonspecificity/specificity of *wh*-expressions influence the acceptability status of the sentences. We claim that a negative *wh*-question is acceptable only to the extent that the set of objects that the *wh*-expression ranges over is pragmatically meaningful, pre-compiled, or easy to compute. This property of *wh*-expression is inversely proportionate to its focushood. Given a *wh*-question in which the *wh*-expression intervenes between a Neg and an NPI that it licenses, it is in general the case that the more restricted the *wh*-expression is, the more pragmatically meaningful the set it ranges over is. The more discourse-linked the *wh*-expression is, the more restricted it is. Likewise, the more specific and discourse-linked the NPI is, the more specific the *wh*-expression tends to be interpreted. This explains why (30) is more acceptable than other sentences: Limiting the set that the NPI *amwuto* ranges

over to the students in the class in question results in limiting the set that the *wh*-expression *mwues-ul* ranges over. That is why the sentence in (12), repeated here as (31), is acceptable despite the fact that it has a template that triggers the BIE:¹⁰

- (31) Na-nun i-pen sihem-eyse haksayng-tul amwuto myechpen muncey-lul
 I-TOP this exam-in students anyone which-number question-ACC
 mos phwul-ess-nun-ci alko-iss-ta.
 cannot solve-PST-Q know-be-DC
 '(lit.) I know which-number question no students could solve in this exam.'

The MNSC of B&K, the LCC of Tanaka (2003), the Intervention Effect of Miyagawa (2002), and the QM analysis of Choi (2003) will make the same prediction regarding the sentence in (12). According to Kuno and Kim (2003), *myechpen muncey-lul* is not a focus, hence does not block the interpretation relation of an NPI and Neg: The set that *myechpen muncey-lul* ranges over is clearly restricted, given the context where a speaker is talking about questions in a specific exam and about a specific group of students. However, it is important to note that we cannot completely ignore syntactic factors of the phenomena. For instance, *why* in a local clause behaves differently from *why* in a long-distance construal, as Miyagawa (2002) observes. It is not clear how focushood of two different *whys* will be characterized in this line of discourse analysis.

In any case, what is clear is that a syntactic constraint for the given phenomena should not be so strong as to undergenerate otherwise acceptable sentences. Given this, there seem to be two ways to conclude. One possibility is to attribute diverse acceptability

¹⁰ An anonymous reviewer points out that there can be two more factors that differentiate (31) from other unacceptable sentences. First, *amwuto* in (12) can be analyzed as a vP adjunct, symmetrically c-commanding the *wh*-expression in the sentence. If we can modify the BIE template in such a way that symmetric c-commanding between a negative quantifier and a *wh*-expression weakens the deviance that is from violation of the BIE, then this can be related to the acceptability (or a better acceptability status) of (31). The reviewer also mentions that the acceptability status of (31) can be related to the auxiliary *mos* 'cannot', claiming that the following is acceptable.

- (i) Amwuto mwues-ul mos-sa-ass-ni?
 anybody what-ACC cannot-buy-PST-Q?
 'What could no one buy?'

On independent grounds, the second possibility is also mentioned in D.-W. Lee (2001). However, in D.-W. Lee, (i) and his (iia) illustrated in the following are judged to be bad while (iib) is not:

- (ii) a.*Chelswu-ka mwues-ul sa-ci anh-ass-ni?
 Chelswu-NOM what-ACC buy Neg-PST-Q? 'What didn't Chelswu buy?'
 b. Chelswu-ka mwues-ul sa-lswu ups-ess-ni?
 Chelswu-NOM what-ACC buy-can Neg-PST-Q? 'What couldn't Chelswu buy?'

In Kuno and Kim (2003: fn. 21), we point out that the set that *mwues-ul* in (iib) ranges over is a set of things that *Chelswu* wanted to buy but could not. Wanting to buy something but not being able to do so is a memorable event, and therefore the speaker can assume that the addressee has the set that *mwuesul* ranges over is pre-complicated. Hence, (iib) is better than (iia).

status solely to violation of a constraint that applies not to the derivation but to a certain semantic representation after narrow syntax. Discourse rules in Kuno and Kim (2003) are such examples. In that system, constraints on derivation are irrelevant in capturing proper interpretations of *wh*-expressions with respect to negation. In a discourse level, there are rules that differentiate the various acceptability of the given sentences. However, we cannot claim that sentences at issue completely ignore syntactic factors as we discussed. As mentioned, it is not clear how focushood of two different *whys* in the sense of Miyagawa (2002) will be differentiated in discourse analyses.

Another possibility is to keep a structural (or derivational) constraint as it is, and modify it to exclude cases under discussion. If the weakened focushood of the *wh*-expression in (31) makes the sentence immune to a syntactic constraint that triggers the BIE, we may still keep the syntactic constraint, whatever its formulation is, and treat the sentence in (31) as irrelevant to the constraint. What if a *wh*-expression with a weakened focushood has a different way to be interpreted? Under B&K's system, it will be the one that does not need to undergo covert movement to spec of CP position. Under Tanaka's LCC, it does not trigger the linking unlike other focused *wh*-expressions. This case can be compared with D-linked *wh*-expressions which behave differently from non D-linked *wh*-expressions in the sense of Pesetsky (1987). Assuming that only non D-linked *wh*-expressions are operators that occupy an A'-position at LF, Pesetsky (1987) is able to account for numerous asymmetries between the two types of *wh*-in-situ with respect to syntactic constraints such as the Nested Dependency Constraint and the ECP. If it is the case, the BIE is a subcase of those asymmetries between D-linked and non-D-linked *wh*-expressions. We can also speculate that the outer spec of v, which is supposed to be responsible for the INT effect of Chomsky (2001a; 2001b), is a place where these D-linked (or specific) *wh*-expressions are interpreted while other *wh*-expressions need to move to the spec of CP for their interpretations.¹¹⁾

Finally, we need a relative concept such as focushood or focus barrierhood to account for the acceptability status of the sentences that are represented in a continuum. Depending on the degree of focushood, the relative acceptability of the given sentence is determined. It is obvious that we cannot solely rely on syntactic analysis for the sentences like the type in (22) assuming a marginal syntactic relation such as 30% c-commanding vs. 70% c-commanding. One more supportive evidence for the importance of the relative concept of focushood is found in drastic idiolectal variations for the sentences under discussion in the review of previous analyses. How much is syntax responsible for the different acceptability status of the sentences of the same pattern? It is natural and rather encouraging if different proposals make different predictions since it will be one of criteria to judge empirical superiority of an analysis. However, if the proposals on the phenomenon are based on completely different

¹¹⁾ This, of course, leads to a number of issues in the Minimalist Framework, especially when we consider the fact that Scrambling affects the BIE. See Torrego (1998) for this line of approach to relate specificity to syntactic derivation.

judgements of relevant sentences, it raises a non-trivial issue. Recall that sentences in (9) were judged to be acceptable by B&K but unacceptable by Tanaka (2003). Likewise, sentences in (24), (26) and (28) are judged as acceptable by Choi (2003) but unacceptable by B&K. These are critical data which all the relevant analyses employ to show that their predictions are borne out. If we accept the relative concept of "focushood", we may attribute this discrepancy to the fact that there are idiolectal variations from speaker to speaker in defining what focus is under a given discourse setting.¹²⁾

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¹²⁾ An anonymous reviewer asks whether we can extend the current suggestion to judgement variation of a single speaker. Can we say that even for a single speaker, acceptability status of one sentence can vary depending in how the speaker conceives a given intervening phrase as a focus? In fact, this may contradict Chomsky (1964: 385) who draws an important distinction between a class of utterances that need no analogic or imposed interpretation and others that can receive an interpretation by virtue of their relations to properly selected members of this class. What we claim here is that the distinction, which is important, should be represented not by ignoring the latter but by differentiating application of rules in the sense of Keller (2000). If we can make three categories regarding the acceptability status of linguistic constructions, (i) acceptable per se; (ii) acceptable only in a certain context; (iii) unacceptable regardless of contexts, our position is that syntactic constraints should not treat (ii) as ungrammatical. Keller (2000) claims that some aspects of gradient data are due to factors that pertain to grammatical competence and that it can be captured by a systematic and theoretically motivated grammar. This also leads us to interpret a linguistic methodology called "idealization" that ignores differences between individuals and imprecision in the knowledge of individuals in the following way: We acknowledge that sentences can be grammatical but unacceptable due to independent reasons but we cannot treat sentences with a certain degree of deviance as ungrammatical hence can be ignored.

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