

## External-Merge of ‘why’ in Korean: Support for existence of subject scrambling

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**The Issue.** The peculiar behavior of ‘why’, in contrast to other *wh*-phrases, has attracted a great deal of attention in the literature (Huang 1982, Nishigauchi 1990, Chung 1995, Lee 2002 i.a.). However, the differences between various types of *why*-constructions have not been extensively investigated. In this paper, we show that there exists a systematic asymmetry in syntax of *way* ‘why’ in Korean with short vs. long distance construal. We propose that the non-uniform behavior of *way* is attributed to the initial merge position of *way* (cf. Rizzi 1990;1999). This proposal has theoretical consequences for subject scrambling: Our evidence from *way*-questions in both adult and child Korean shows that subject scrambling does exist (Sohn 1994, Lee 1992, Lee 1993), contra Saito (1985).

**Puzzle.** Most *wh*-phrases in Korean cannot follow an NPI (1); this is known as the **Intervention Effect (IE)** (Beck and Kim 1997: (2)).

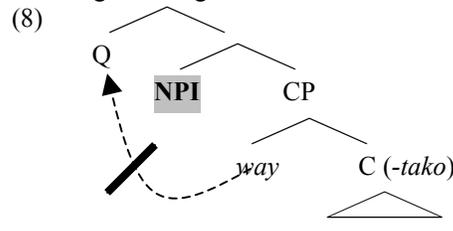
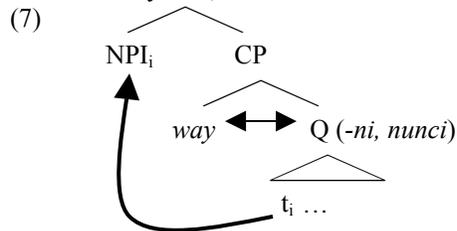
- (1) \***Amwuto**      **mwues-ul**      ilk-ci-an-ass-ni?  
 Anyone          what-Acc          read-CI-not-Past-Q  
 ‘What did no one read?’
- (2) **Intervention Effect (IE):** In LF, a *wh*-phrase may not move across certain Scope-Bearing Interveners (e.g. NPI, not, only, even). (Beck and Kim 1997; see also Hagstrom 1998, Pesetsky 2000)

It has been noted that *way*, however, may follow an NPI in some contexts (3). From (1-3), previous literature has concluded that *way* is simply *not* subject to the IE (Cho 1998, Lee 2002). We argue that this conclusion is incorrect. If *way* were free from the IE, we would expect it to be able to follow an NPI in *any* context. However, this is not true. When *way* is embedded in a declarative clause, it cannot follow ‘anyone’ in the higher clause (4), or even a clausemate ‘anyone’ (5). Thus, we note that long distance *way* in (4-5) may not follow an NPI, just like other *wh*-phrases. On the other hand, short distance *way* in (3) may follow an NPI, unlike other *wh*-phrases.

- (3) a.      **Amwuto**      **way**      saimha-ci-an-ass-ni?  
 Anyone          why          resign-CI-not-Past-Q  
 ‘Why did no one resign?’
- b.      Ne-nun          [**amwuto**      **way**      saimha-ci-an-ass-**nunci**]      mwul-ass-ni?  
 You-Top          [anyone          why          resign-CI-not-Past-Q]      ask-Past-Q  
 ‘Did you ask why no one resigned?’
- (4) \***Amwuto**      [John-i          **way**      saimha-ass-tako]      malha-ci-an-ass-ni?  
 Anyone          [J-Nom          **why**      resign-Past-C]      say-CI-not-Past-Q  
 ‘What is the reason x such that no one said that John resigned for x?’
- (5) \*Ne-nun      [**amwuto**      **way**      saimha-ci-an-ass-tako]      malha-ass-ni?  
 You-Top      [anyone          **why**      resign-CI-not-Past-C]      say-Past-Q  
 ‘What is the reason x such that you said that no one resigned for x?’

**Analysis.** We propose that this asymmetry between short vs. long distance *way* are due to **external-merge of *way* into its potential checking position [Spec,CP] in the overt syntax** (cf. Bromberger 1985 for English, Rizzi 1990 for French, Rizzi 1999 for Italian, Lin 1992 for Chinese). Consider (3), where *way* is initially merged in an interrogative clause. The interrogative clause contains the licenser Q for *wh*-phrases (e.g., *-ni*, *-nunci*). Thus, when merged into [Spec,CP], *way* is immediately licensed by Q (cf. Chomsky 1999). Consequently, *way* in (3) does not move at LF. The order between NPI and *way* in (3) is a result of overt scrambling of the NPI over *way*, as shown in (7) (it is well-known (Sohn 1994) that NPIs in Korean may scramble over C, as in (6)). Thus, the reason we do not see an IE in (3) is that there is no movement of *way* over the NPI at all; rather, the NPI moves over *way*.

- (6) **Amwuekeyto**<sub>i</sub>      John-un      [Mary-ka **t<sub>i</sub>**      panci-lul      cwucianasstako]      mit-ass-ta  
 Anyone-Dat      J-Top      [M-Nom      ring-Acc      gave.not-Dec]      believe-Past-Dec  
 ‘Anyone<sub>i</sub>, John believed that Mary did not give a ring to **t<sub>i</sub>**.’



In contrast to (3), *way* in (4-5) cannot be licensed by external-merge, since the declarative CP (headed by *-tako*) lacks Q. Therefore, *way* in (4-5) must undergo LF-movement to a higher clause containing Q, in order to be licensed. Due to the IE, however, an NPI intervening between *way* and Q in (4-5) prevents movement of *way*, as in (8). Thus, (4-5) are ungrammatical.

**Consequence.** Both (9a) and (9b) are possible Korean sentences. On our proposal, (9a) reflects the base order of *way* and subject. That means that in (9b), the subject *John-i* must have scrambled over *way* in [Spec,CP], as in (10). The Floating Quantifier (FQ) test further supports this view. Saito (1985) argues that a FQ is licensed when the antecedent or its trace is adjacent to the FQ (cf. Miyagawa 1989, Cho 2000, i.a). Given this, our proposal predicts that a subject may license a non-adjacent FQ across *way*, since there is a trace of the subject below *way*. This prediction is borne out. As in (11), *haksayng-i* ‘student’ may license the FQ *sey-myeng* across *way*. This shows that as our proposal predicts, *haksaying-i* has moved from the position adjacent to the FQ to the position preceding *way*.

- (9) a. **Way** John-i saimha-ess-ni? (10) **John-i<sub>i</sub>** [CP way **t<sub>i</sub>** saimha-ess-ni]?  
 Why J-Nom resign-Past-Q  
 ‘Why did John resign?’  
 b. John-i **way** saimha-ess-ni?
- (11) **Haksayng-i<sub>i</sub>** way t<sub>i</sub> **sey-myeng-(i)** puwcokha-ni?  
 Student-Nom why **three-CL-(Nom)** be.lack.of-Q  
 ‘Why are three students absent?’ (‘why do we lack three students?’)

**Further Prediction.** The availability of scrambling in adult Korean prevents us from directly testing our proposal about the base order between *way* and the subject; both (9a) and (9b) occur in adult speech. Child Korean, in contrast, provides us with an opportunity to observe the base order. It has been noted that Korean children produce very few scrambled sentences in the early stages of language acquisition (2;00-3;00) (Cho 1981, Kim 1997). Our proposal then predicts that *way* should generally precede a (non-topic) subject in child Korean, since the base order “*way*-subject” is preserved. Natural production data confirm this prediction. We examined 53 files of spontaneous utterances of a Korean child, ranging in age from (2;00) to (2;11). As expected from the previous literature, scrambling rate in the child data was very low: only 16% of all utterances. Subject omissions were quite frequent. Crucially, however, when a subject was present, it followed *way* consistently in most cases (75%): (12a).

(12)	Child WH	wh S <sub>NOM</sub>	S <sub>NOM</sub> wh	(13)	Adult WH	Wh S <sub>NOM</sub>	S <sub>NOM</sub> wh
a	Why	12 (75%)	4 (25%)	a	Why	32 (34%)	63 (66%)
b	Where	0 (0%)	14 (100%)	b	Where	5 (5%)	91 (95%)

[NB: The tables in (12) and (13) do not include utterances with omitted subjects, which constitute most of the child’s *wh*-questions; Of all the utterances, subject omission with ‘why’ was 66% (304/450), omission with ‘where’ was 38% (209/547)]

This pattern sharply contrasts with other *wh*-adjunct in the data. In the same child files, *etti* ‘where’ shows the opposite pattern; subject-*etti* order in 100% (12b). The difference between *way* and *etti* is highly significant ( $\chi^2=17.5$ ,  $p<.001$ ). Importantly, the “*way*-subject” order in the child data is not a function of adult input. In the adult utterances from the same files, *way* follows the subject in most cases (66%): a reverse pattern from the child data (13a). The difference in *way* placement in child vs. adult data was also significant ( $\chi^2=24.8$ ,  $p<.001$ ). Thus, the unique pattern in child *way* questions directly supports our proposal: in the absence of scrambling, *way* must precede the subject.

**Conclusion.** In this paper, we showed that there are no essential differences between *way* and other *wh*-phrases with respect to the IE. All the *wh*-phrases in Korean are subject to the IE in the same fashion. The peculiar behavior of *way* is rather a consequence of its external-merge into [Spec,CP]. This view provides another cross-linguistic evidence that initial merge position makes ‘why’ special (e.g. English, French, Italian, Chinese). This paper also gives us empirical support for existence of subject scrambling, which has been a controversial issue in the literature.

**Selected References.** Beck, S. & S-S. Kim (1997) On *wh*- and Operator Scope in Korean. *JEAL* 6(4); Cho, E. (1998) Why, Contrastive Topic and LF movement. *J/K linguistics* 8; Cho, S. C. (2000). *Three Forms of Case Agreement in Korean*. Ph.D diss. SUNY. Cho, S. W. (1981). *The Acquisition of Word Order in Korean*. MA thesis. UCalgary; Kim, Y.-J. (1997) The acquisition of Korean. *The Crosslinguistic Study of Language Acquisition Volume 4*; Lee (2002). why ‘why’ is different? *CLS* 38; Lee, Y-S (1993) *Scrambling as Case-Driven Obligatory Movement*. Ph.D. diss. UPenn; Lin, J. W. (1992) The syntax of *zenmeyang* ‘How’ and *weishenme* ‘why’ in Mandarin Chinese. *JEAL* 1. Saito, M. (1985). *Some asymmetries in Japanese and their theoretical implications*. Ph.D. diss. MIT; Rizzi, L. (1990) *Relativized Minimality*; Rizzi, L. (1999) On the position “Int(errogative)” in the left periphery of the clause. Ms. U.Siena.; Sohn, K-W (1994) *Negative Polarity Items, Scope and Economy*. Ph.D. diss. Uconn.