

## A movement approach to non-local *wh*-Polarity Sensitive Items in Korean

**Goal** This paper examines the distributional pattern of non-local *wh*-Free Choice Items (FCIs) and Negative Polarity Items (NPIs) in Korean, which together are called Polarity Sensitive Items (PSIs) (Choi 2007), and presents evidence for the movement theory of *wh*-indeterminates and against an in-situ approach.

**Background** A *wh*-indeterminate (Kuroda 1965) and a focus particle *-to*, meaning ‘also’ or ‘even’ in English, form a PSI as in (1), and the association between them can be non-local when *wh*-indeterminates are within the c-command domain of *-to* as in (2).

- (1) a. Mary-nun **nwukwu-to** cohaha.ci anh-nun-ta.  
 M-Top who-Foc like Neg-Pres-Decl  
 ‘Mary does not like anyone.’ (NPI)
- b. Mary-nun **nwukwu-to** i il-ul ha-lswu.iss.ta-ko malha-ss-ta.  
 M-Top who-Foc this work-Acc do-can-Comp say-Past-Decl  
 ‘Mary said that anyone can do this work.’ (FCI)
- (2) Mary-nun **nwukwu-lul** cohaha.ci-**to** anh-nun-ta.  
 M-Top who-Foc like-Foc Neg-Pres-Decl  
 ‘Mary does not like anyone.’

Though non-local PSIs as in (2) has not been researched much in Korean, a non-local *wh.* *-mo* universal construction in Japanese has been discussed a lot. There are two major approaches to the non-local universal construction in Japanese: a non-movement approach (Shimoyama 2006) and a movement approach (Takahashi 2002, Watanabe 1992), which can be carried over to non-local PSIs in Korean.

**A non-movement approach** Shimoyama (2006), adopting Hamblin’s (1976) semantics for *wh*-phrases as sets of alternatives, argues that *wh*-indeterminates generate sets of alternatives and expend them until they encounter an operator that computes on a set of alternatives and gives a singleton set in return. Under this approach, a *wh*-indeterminate and the alternative-set-absorbing operator *-mo* is not associated by movement. This approach can be extended to the non-local association across island boundaries as in (3): no movement is posited; hence, no island effects. However, the unavailability of association in (4) is not predicted. In (4), one more layer of complex NP boundary is added between *nwukwu* ‘who’ and *-to*, and no operator absorbing a set of alternatives intervenes the two, while the non-local association is unavailable. Hence, (4) seems to suggest that alternative semantics approach cannot be extended to Korean *wh*-PSIs.

- (3) a. I ciyeok-ese-nun [DP<sub>CP</sub>**nwu(kwu)**-ka ssun] chayk]-**to** cal phal-li-n-ta.  
 this region-in-Top who-Nom wrote book-Foc well sell-Pass-Pres-Decl  
 ‘In this region, whoever wrote a book, it is well sold.’ (Complex NP island)
- b. Mary-nun [**etten** umsik-ul mek.i ceney]-**to** son-ul an ssis-nun-ta.  
 M-Top which food-Acc eat before-Foc hands-Acc Neg wash-Pres-Decl  
 ‘Mary doesn’t wash her hands before eating any food.’ (Adjunct island)
- (4) [DP<sub>1</sub>[CP<sub>1</sub>[DP<sub>2</sub>[CP<sub>2</sub>**nwu(kwu)**-ka ssun] casecen]-ul kyocenghan] saram]-**to** bonus-lul  
 who-Nom wrote biography-Acc proofread person-Foc incentives-Acc  
 patci anh-ass-ta.  
 receive Neg-Past-Decl

‘\*People who proofread biographies that anyone wrote didn’t receive incentives.’<sup>1</sup>

**Movement approach** argues that *wh*-indeterminate and *-to* are associated via movement. There are several versions of accounts on how *wh*-indeterminates are associated with particles determining functions and interpretations of *wh*-indeterminates, depending on what is moving. For instance, Watanabe (1992) argues that a null operator born as a unit with a *wh*-indeterminate undergoes movement to form relation with a Question particle; Hagstrom (1998) proposes that a

<sup>1</sup> (4) is grammatical only when the *wh*-indeterminate is interpreted as an interrogative and *-to* as ‘also’ or

particle associated with a wh-indeterminate moves; Nishigauchi (1990) argues that a wh-indeterminate moves.

Analyses under the movement approach have to provide account for lack of island effects as in (3), while (4) can easily be predicted as a case of island violation. In order to account for lack of island effects such as (3), Nishigauchi (1990) argues that an island is pied-piped to a wh-indeterminate and undergoes covert movement to the vicinity of a particle as a whole. However, this approach has to assume a subsequent reconstruction after a covert movement to attain a correct interpretation as pointed out by Shimoyama (2006). Hagstrom (1998), on the other hand, argues that a particle may be base-generated outside of an island immediately containing wh-indeterminate, which can be followed by a particle movement. However, this account does not explain why a particle should be appended to an island closest to the wh-indeterminate.

**Proposal** I argue that the particle *-to* in Korean is a focus sensitive operator, and triggers a movement of a wh-indeterminate motivated by focus as proposed by Chomsky (1976). Moreover, following Brockett (1994)'s assumption on *-mo* in Japanese, I argue that *-to* in Korean provides an escape hatch. Chomsky (1976) argues a focus constituent covertly moves which informs the focus-sensitive operator such as *only* about the meaning of a focus and its scope.

- (5) SS: [<sub>VP</sub> introduced Bill<sub>F</sub> to Sue]  
 LF: [Bill<sub>i</sub> [<sub>i</sub> introduced t<sub>i</sub> to Sue]]  
 Interpretation: <BILL, A, λ<sub>x<sub>i</sub></sub>[INTROD(SUE)(x<sub>i</sub>)]<sup>2</sup>

Adopting this analysis on Focus, I argue that wh-indeterminates are focus elements like *Bill<sub>F</sub>* in (5), which are forced to undergo movement in order to form the right semantic structure. This obligatory covert movement can be supported by (6) in which FCIs located lower than a Q-adverb *taykey* 'mostly' has wide scope over a head noun of a relative clause which is located higher.

- (6) [<sub>DP</sub>[<sub>CP1</sub> *etten chayk-ul ilkun*] haksayng]-*to* taykey ku cakka-lul pinanha-n-ta.<sup>3</sup>  
 which book-Acc read student-Foc mostly its author-Acc criticize  
 a. \*most<sub>x,y</sub> [book(x) & student(y) \$ read (y,x)][y criticized x's author]  
 b. ∀<sub>x</sub> [paper(x)][most<sub>y</sub> [student(y) & read (y,x)][y criticized x's author]]

The interpretation in (6b) will be made available when *etten chayk-ul* 'which book' is covertly moved to the spec of *-to* phrase, as suggested by Brockett (1994).

One might wonder how this movement does not induce island effects as in (3). Provided that every movement occurs cyclically, *etten chayk-ul* 'which book' will first undergo movement to spec, CP1 in (6) and *-to* as an escape hatch allows it moves further to its spec. The unavailability of (4) is easily captured under this analysis. In (4), DP2 is not appended with *-to*, which means that the DP2 does not have an escape hatch that allows *nwukwu* 'who' to circumvent crossing an island; therefore, preventing the long-distance association.

**To summarize**, non-movement analysis for wh-indeterminates cannot be extended to account for the distributional pattern of *wh*-PSIs in Korean, and the unavailability of long-distance association in (4) suggests that the movement approach is on the right track. Among various analyses within the movement approach, I argue that wh-indeterminates undergo focus-driven movement to spec of *-to* phrase which, I assume, is to be a focus-sensitive operator. If this analysis is on the right track, the distributional pattern of non-local PSIs can constitute evidence for the movement theory of focus association.

**Selected References** \* Brockett, C. (1994). *Mo*: Quantificational evidence for a non-quantificational analysis. In *Formal Approaches to Japanese Linguistics* (Vol. 1, pp. 45-59). \* Chomsky, N. (1976). Constraints on rules of grammar. *Linguistic Analysis* 2:303-350. \* Hagstrom, P. A. (1998). *Decomposing questions* (Doctoral dissertation, Massachusetts Institute of Technology). \* Nishigauchi, T. (1990) *Quantification in the theory of grammar*. Dordrecht:Kluwer. \* Shimoyama, J. (2006). Indeterminate phrase

<sup>2</sup> (5) is from Krifka (2006) (5).

<sup>3</sup> This example modified a Japanese counterpart provided by Brockett (1994)(5).

quantification in Japanese. *Natural Language Semantics*, 14(2), 139-173. \*Watanabe, A. (1992). *Wh-in-situ, subadjacency and chain formation* (No. 2). MIT Working Papers in Linguistics Department of Linguistics and Philosophy, Massachusetts Institute of Technology.