Wh-Constructions in Korean: A Lexical Account*

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This paper investigates wh-constructions in Korean. Korean wh-constructions exhibit a set of properties that is different from those in Chinese and Japanese, which otherwise share many similarities with Korean. This paper attempts to provide a more comprehensive account of the set of properties of Korean wh-constructions, within the Minimalist Program (MP). I propose that Korean wh-words are variables which form binding relations with different operators in the lexicon, by adopting Tsai (1994, 1999). For interrogative wh-words, I argue that a nominal wh-word consists of a variable and a separate phonologically null operator which merges directly into Spec-CP, whereas a why-wh-word (i.e. the adverbial wh-word ‘why’) is composed of a variable and a null operator as a single unit (for Merge) in the lexicon. I also argue that a nominal wh-variable forms a non-interrogative expression in the lexicon by combining with a non-interrogative quantificational operator which merges either at the DP or PP level, or at the CP level. Incorporating the proposed analysis into the typology of wh-constructions by Tsai, I maintain that Korean employs both Chinese-type and Japanese-type operators.

1. Introduction

Korean wh-constructions have a set of properties which distinguish them from other wh-in-situ languages, such as Chinese and Japanese. This paper attempts to provide a more comprehensive account for the set of properties of Korean wh-constructions, within the Minimalist Program (MP). In doing so, this paper seeks to incorporate the proposed analysis into the typology of wh-constructions proposed by Tsai (1994, 1999).

2. Korean wh-words as variables

Korean bare nominal wh-words can be interpreted either as interrogative words or existential quantifiers, as shown in (1).¹

* I would like to thank Diane Massam for her valuable comments and helpful discussion. Any remaining errors are entirely my own.
¹ Note that a wh-word is interpreted as an interrogative word when it receives a high-pitch accent, and as an existential quantifier when it receives a low-pitch accent.
(1) nwukwu-ka wass-ni?
    person-Nom came-Q
i. ‘Who came?’
ii. ‘Did someone come?’

Thus, when two nominal wh-words occur in a sentence, four different readings are available, as shown below:

(2) nwukwu-ka mwues-ul sass-ni?
    person-Nom thing-Acc bought-Q
i. ‘Did someone buy something?’
ii. ‘Who bought what?’
iii. ‘Who bought something?’
iv. ‘What did someone buy?’

In (2), the two nominal wh-words in the sentence can be interpreted either as existential quantifiers [as in (i)] or interrogative words [as in (ii)], or they can have mixed readings where one wh-word is interpreted as an existential quantifier, and the other as an interrogative word [as in (iii-iv)].

In addition, nominal wh-words with an existential quantificational particle (i.e. -(i)nka or -(i)nci) or a universal quantificational particle (i.e. -(i)na or -(i)tunci) form non-interrogative expressions, as shown in (3):

(3) a. nwukwu-(i)nka/(i)nci-ka wass-ni?
    person-inka/inci-Nom came-Q
    ‘Did someone come?’

b. nwukwu-(i)na/(i)tunci -ka Minswu-lul cohahan-ta.
    person-ina/intunci -Nom -Acc like-Dec
    ‘Everyone likes Minswu.’

Based on the above data, I propose that Korean wh-words are variables without any inherent quantificational force, and thus need to be properly bound.2 The question then arises as to what these binders are and where they are base-generated. To answer these questions, we must first consider the asymmetries between nominal wh-words and why-wh-words (i.e. the adverbial wh-word way ‘why’) in Korean.

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2 Many researchers – notably, Nishigauchi (1990), Cheng (1991), Aoun and Li (1993), Watanabe (1992, 2003), and Tsai (1994, 1999), among others – have also argued that wh-words in in-situ languages, such as Chinese and Japanese, are variables without any inherent quantificational force.

3 For a detailed discussion of previous accounts of Korean wh-words, see Shin (2005).
3. Asymmetries between nominal *wh*-words and *why*-wh-words

Three types of asymmetries between nominal and *why*-wh-words have been observed in Korean. First, unlike a nominal *wh*-word, which is ambiguous between an interrogative and an existential reading (1, repeated here as 4a), a *why*-wh-word is always interpreted as an interrogative word (4b).

(4) a. nwukwu-ka wass-ni?
    person-Nom came-Q
    i. ‘Who came?’
    ii. ‘Did someone come?’

b. Minswu-ka way wass-ni?
    -Nom why came-Q
    i. ‘Why did Minswu come?’
    ii. *‘Did Minswu come for some reason?’

Second, unlike nominal *wh*-words which can make use of quantificational particles to form non-interrogative expressions (3, repeated here as 5a and b), *why*-wh-words cannot do so (5c).

(5) a. nwukwu-(i)inka-ka wass-ni?
    person-inka-Nom came-Q
    ‘Did someone come?’

b. nwukwu-(i)na-ka Minswu-lul cohahan-ta.
    person-(i)na -Nom -Acc like-Dec
    ‘Everyone likes Minswu.’

c. *Minswu-ka way-inka hwakanass-ni?
    -Nom why-inka is upset-Q
    ‘Is Minswu upset for some reason?’

Finally, since Huang (1982), it has been observed that there is an asymmetry between a nominal *wh*-word and a *why*-wh-word with respect to island constraints in *wh*-in-situ languages: that is, a nominal *wh*-word which occurs inside an island does not show any island effects, while a *why*-wh-word inside an island does. Korean also displays this asymmetry, as in the following examples:

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4 Note that, unlike *why*-wh-words, the adverbial *wh*-words *encey* ‘when’, *eti* ‘where’ and *ettehkey* ‘how’ in Korean behave more like nominal *wh*-words.

5 However, a *why*-wh-word can be interpreted as an existential quantifier in a certain context:

(i) a. onul-un Senhi-ka way-(i)nci pokosip-ta
    today-top -Nom reason-OP[+\_] want.see-Dec
    ‘Today, I miss (lit. want to see) Senhi for some reason.’

This will be discussed further in section 4.2.
(6)  a. Nominal *wh*-in-situ in relative clauses (CNPC)
   Minswu-ka  [NP[CP nwukwu-ka ssu-n]  chayk-ul]  sass-ni?
      -Nom  who-Nom  write-Rel  book-Acc  bought-Q
   ‘Who is *x* such that Minswu bought the books that *x* wrote?’

   b. Nominal *wh*-in-situ in *wh*-islands
   Minswu-nun  [CP nwukwu-ka  mues-ul  hay-ss-nunci]  kwungkumhayha-ni?
      -Top  who-Nom  what-Acc  do-Past-C  wonder-Q
   ‘What is *x* such that Minswu wonders who bought *x*?’

   c. Nominal *wh*-in-situ in adjunct islands
   Minswu-nun  [CP Senhi-ka  mues-ul  sa-se]  hwakanass-ni?
      -Top  -Nom  what-Acc  buy-because  is upset-Q
   ‘What is *x* such that Minswu is upset because Senhi bought *x*?’

(7)  a. *Why*-wh*-in-situ in relative clauses (CNPC)
   *Minswu-nun  [NP[CP Senhi-ka  way  ssu-n]  chayk-ul ]  ilkess-ni?
      -Top  -Nom  why  write-Rel  book-Acc  read-Q
   ‘What is the reason *x* such that Minswu read the book that Senhi wrote for *x*?’

   b. *Why*-wh*-in-situ in *wh*-islands
   *Minswu-nun  [CP nwukwu-ka  chayk-ul  way  sass-nunci]  kwungkumhayha-ni?
      -Top  who-Nom  book-Acc  why  bought-C  wonder-Q
   ‘What is the reason *x* such that Minswu wonders who bought that book for *x*?’

   c. *Why*-wh*-in-situ in adjunct islands
   *Minswu-nun  [CP Senhi-ka  chayk-ul  way  sa-se]  hwakanass-ni?
      -Top  -Nom  book-Acc  why  buy-because  is upset-Q
   ‘What is the reason *x* such that Minswu is upset because Senhee bought the book for *x*?’

4. Proposals

In order to account for the differences in behaviour between nominal and *why*-wh*-words,
I propose that Korean *wh*-words are variables which form binding relations with different
operators in the lexicon.

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6 Nishigauchi (1990) assumed that a Korean nominal *wh*-in-situ also displays *wh*-island effects, as do Japanese
ones. To the contrary, I argue here that Korean nominal *wh*-words do not show *wh*-island effects as shown in
(6b) [see also Lee (1982)]. The following example confirms this claim:
(i)  Minswu-nun  [CP Senhi-ka  mues-ul  sa-ss-nunci (ettenci)]  kwungkumhayha-ni?
      -Top  -Nom  what-Acc  buy-Past-whether  wonder-Q
   a. ‘Does Minswu wonder whether Senhi bought something?’
   b. ‘What does Minswu wonder whether Senhi bought?’

It should also be noted that it is still under debate whether Japanese nominal *wh*-words exhibit genuine *wh-
4.1. Interrogative wh-words and island effects

For interrogative _wh_-words, I propose that a nominal _wh_-word (WH$_{nom}$) consists of a variable (VAR) and a separate phonologically null operator (OP) which merges directly into Spec-CP (8a), whereas a _why-wh_-word (WH$_{why}$) is composed of a variable and a null operator as a single unit (for Merge) in the lexicon (8b), following Tsai (1994, 1999) who made similar claims for Chinese.$^{7,8}$

(8) Interrogative _wh_-words in the lexicon
   a. WH$_{nom}$ : [OP] ... [VAR]$_{9}$
   b. WH$_{why}$ : [OP...VAR]

Based on the proposal in (8), the asymmetry between nominal and _why-wh_-words with respect to island effects can be explained. I assume here that the C$^0$ in a _wh_-question contains a universally strong [+wh] feature which needs to be checked. Since it is the null operator which contains a [+wh] feature for Korean _wh_-words, only the null operator needs to be in a checking relation with the [+wh] feature on C$^0$. Therefore, for nominal _wh_-words, a null operator with a [+wh] feature which merges directly into Spec-CP can check [+wh] on C$^0$. Following Reinhart (1993, 1998), I propose that a nominal _wh_-variable in situ can be long-distance bound by this null operator in Spec-CP, and thus can be interpreted in situ. Since no movement is involved, no island effect is observed, as shown in (6) above.

On the other hand, for a _why-wh_-word, a variable and a null operator are combined as a single unit in the lexicon, and thus are base-generated in situ together. Since the null operator with the [+wh] feature has to undergo movement to Spec-CP to check the strong [+wh] feature on the C$^0$, island effects are observed, as shown in (7) above.

4.2. Non-interrogative wh-words

For non-interrogative _wh_-words, I argue that in the lexicon, a nominal _wh_-variable combines with a non-interrogative quantificational operator which merges at the DP or PP level, as illustrated in (9) below.$^{10}$

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$^7$ See also Cole & Hermon for similar claims for Malay.

$^8$ Tsai (1994, 1999) assumed a _why-wh_-word in Chinese as an intrinsic operator. On the other hand, I assume that a Korean _why-wh_-word is composed of a variable and a separable operator, since it can be interpreted as a non-interrogative expression in a certain context [section 4.2]. Following this, I adopt here the view that the [+wh] feature on an operator is universally strong (Chomsky 1993), instead of Tsai’s proposal that languages may employ either a weak or strong operator feature.

$^9$ [ ] refers to the unit for Merge, and ‘…’ illustrates the separability between OP and VAR.
(9) Non-interrogative wh-words in the lexicon
   a. WH₃ : [OP[3+]]...[VAR]
   b. WH₄ : [OP[4+]]...[VAR]

   \[ \text{DP/PP} \]
   \[ \text{NP} \quad \text{OP}_{[\forall/\exists]} \]
   \[ \text{VAR} \]

Supporting evidence for the claim that a nominal wh-variable and a non-interrogative quantificational operator are combined at the DP/PP level comes from the fact that a case marker (e.g. -ka ‘nominative’) always follows both, as shown in (10):

(10) a. nwukwu-(i)\textit{inka-uy} chayk
    person-OP\_{[\exists]-Gen} book
    ‘Someone’s book’

   b. nwukwu-(i)\textit{na-ka} Minswu-lul cohahan-ta.
    person-OP\_{[\forall]-Nom} -Acc like-Dec
    ‘Everyone likes Minswu.’

In addition, in Korean, a preposition can alternate its position with a non-interrogative quantificational particle:\textsuperscript{11}

(11) a. Minswu-ka nwukwu-(i)\textit{nga-ekey} senmwul-ul ponayss-ta
    -Nom person-OP\_{[\exists]-to} gift-Acc sent-Dec
    Minswu-ka nwukwu-e\textit{key-(i)nga} senmwul-ul ponayss-ta
    -Nom person-to-OP\_{[\exists]} gift-Acc sent-Dec
    ‘Minswu sent a gift to someone.’

   b. Minswu-ka nwukwu-(i)\textit{na-ekey} chincelha-ta
    -Nom person-OP\_{[\forall]-to} is kind-Dec
    Minswu-ka nwukwu-e\textit{key-(i)na} chincelha-ta
    -Nom person-to-OP\_{[\forall]} is kind-Dec
    ‘Minswu is kind to everyone.’

Based on the above proposal, the asymmetry between nominal and why-wh-words regarding non-interrogative quantificational particles – discussed in (5) – can be explained. That is, given (9), such type of quantification (or binding relation) is not available in the case of a why-wh-word, since D or P usually does not take an adverb as its complement. However, as briefly noted in footnote 5, a why-wh-word can in fact be interpreted as a non-interrogative expression in a certain context:

\textsuperscript{10} The particular details of DP or PP structure are not important for the general claim made here.
\textsuperscript{11} This also has been observed in Japanese (Nishigauchi 1990).
(12) onul-un Senhi-ka way-(inci) pokosip-ta today-top -Nom reason-OP_{[+3]} want.see-Dec
‘Today, I miss (lit. want to see) Senhi for some reason.’

I propose that way-(inci) in sentences like (12) should be analyzed as a shortened form of way-n-il-inci, as illustrated below:

(13) a. [DP [NP [AP way - n]- il ]] -inci reason-Adj-matter - OP_{[+3]}
b. onul-un Minswu-ka way-n-il-inci pokosip-ta today-top -Nom reason-Adj-matter-OP_{[+3]} want.see-Dec
‘Today, I miss Minswu for some reason.’

In (13a), a why-wh-word with the morpheme -n (which adjectivalizes way) modifies the noun il ‘matter’, and thus a why-wh-variable is below DP. Since why-wh-variable is under DP, it can be bound by the existential quantificational particle -inci which merges at a DP/PP level, and thus can be interpreted as an existential quantifier, as shown in (13b).

I also argue that, when a bare nominal wh-word receives an existential reading, a phonologically null existential quantificational operator is present, as in the case of a null interrogative operator. This is shown in (14):

(14) nwukwu-(inka)-ka wass-ta
    person-OP_{[+V]}-Nom came-Dec
‘Someone came.’

Unlike an existential quantificational operator, however, a universal quantificational operator cannot be phonologically null: that is, it must be pronounced when it binds a wh-variable, as shown in (15).

(15) nwukwu-* (ina)-ka pati-ey olswuiss-ta
    person-OP_{[-V]}-Nom party-to come;is able to-Dec
‘Everyone/anyone can come to the party.’

A universal quantificational operator also differs from an existential one in that it can long-distance bind a wh-variable, as follows:

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12 A why-wh-word with the morpheme -n often modifies a noun in Korean, as shown below:

(i) a. [way-n]-namca-ka pakk-ey iss-ta
    man-Nom outside-at is-Dec
    ‘Some man (whose presence is surprising) is outside.’

b. [way-n]-phyenci-ka Minswu-eykey wass-ta
    -letter-Nom -to came-Dec
    ‘Some letter (whose delivery is surprising) came to Minswu.’

13 Unfortunately, I do not have an explanation in this paper for what causes this contrast. However, it is important to note that existential and universal quantifiers behave somewhat differently, even though they are both quantificational operators.
In (16), the *wh*-variable *nwukwu* is bound by the quantificational operator -*na* which is not combined with it at the DP/PP level, and is interpreted as a pseudo-universal quantifier, meaning ‘no matter who’. To account for this, I argue that a universal quantificational operator can merge directly in Spec-CP, giving a pseudo-universal reading to the *wh*-variable which it binds.

5. Towards a typology of *wh*-questions

To account for the different types of *wh*-questions among languages, Tsai (1994, 1999) proposed the Lexical Merger Parameter, as follows:

(17) Lexical Merger Parameter
   a. Chinese-type : Merging an operator into CP
   b. Japanese-type : Merging an operator into DP/PP
   c. English-type   : Merging an operator into D^0

Tsai maintained that Chinese nominal *wh*-words only use a sentential operator, such as *dou*, while Japanese nominal *wh*-words always use an operator which merges in DP/PP, such as -*ka*, as shown in (18):

(18) a. wo shenme    *dou*    mai       (Chinese)
     I      everything all        buy
     ‘I want to buy everything.’

   b. dare-ka-ga  ringo-o        tabeta   (Japanese)
     someone-ka-Nom apple-Acc    ate
     ‘Someone ate an apple.’

The evidence for the Lexical Merger Parameter comes from the differences in behaviour of nominal *wh*-words with respect to island effects in these languages. A Chinese operator merges in CP, and so no movement is involved. As a result, no island effect is observed in Chinese. On the other hand, an operator in Japanese merges in DP or PP, and undergoes movement to Spec-CP. Since the operator is base-generated in PP or DP in Japanese, a complex NP island effect is avoided, but a *wh*-island effect cannot be avoided. As for English, an operator merges at the D^0 level and moves to Spec-CP, and so it displays all island effects.\(^{14}\)

Korean *wh*-questions have been considered to be very similar to Japanese (notably by Nishigauchi (1990), Tsai (1994, 1999), and Cole & Hermann (1998), among others). However, as we have discussed so far, this is not always the case. That is, Korean nominal *wh*-words do not display any island effects, including *wh*-island effects, as in Chinese. On

\(^{14}\) Tsai also discussed the morphological structure of *wh*-words in above languages to support his claim. For the detailed discussion, refer to Tsai (1994, 1999).
the other hand, to form non-interrogative expressions, Korean nominal wh-words make use of an overt DP/PP level particle, as in Japanese. However, Korean can also make use of an overt sentential particle, as in Chinese.

Therefore, based on these observations, I propose that Korean employs both Chinese-type and Japanese-type operators: that is, an operator which merges in Spec-CP (i.e. a null interrogative operator and a universal quantificational operator); and an operator which merges in DP or PP (i.e. a non-interrogative quantificational operator). Tsai’s Lexical Merger Parameter thus needs to be modified as follows:

(19) Lexical Merger Parameter (modified)
   a. Korean-type : Merging an operator into CP or DP/PP
   b. Chinese-type : Merging an operator into CP
   c. Japanese-type : Merging an operator into DP/PP
   d. English-type : Merging an operator into D0

6. Conclusions

In this paper, I have argued that Korean wh-words are variables which form binding relations with different operators in the lexicon, and the differences in behaviour of wh-words in Korean are attributable to these lexical differences. For interrogative wh-words, I argued that a nominal wh-word consists of a variable and a separate phonologically null operator which merges directly into Spec-CP, whereas a why-wh-word is composed of a variable and a null operator as a single unit (for Merge) in the lexicon. I also argued that a nominal wh-variable forms a non-interrogative expression in the lexicon by combining with a non-interrogative quantificational operator which merges either at the DP or PP level, or at a CP level. Incorporating the proposed analysis into the typology of wh-questions by Tsai, I further maintained that Korean employs both Chinese-type operators (which merge in CP) and Japanese-type operators (which merge in DP/PP).

References


15 However, Tsai’s account for Japanese wh-constructions exhibits some questions which need to be addressed. First, it is questionable how (22c) can account for the lack of an adjunct island effect of Japanese nominal wh-words: that is, how the operator movement of Japanese nominal wh-words from the DP or PP level to a scope position violates a wh-island but not an adjunct island. Secondly, Tsai (1994, 1999) assumed that the Japanese universal quantificational operator -mo is not a sentential particle, following Nishigauchi (1990). However, it should be noted that, as in Korean, it can be used clause-finally, as following:

(i) dare-ga kite-mo, boku-wa awa-nai
   who-Nom come-OP[+I] I-Top meet-not
   ‘For all x, if x comes, I will not meet (x).’

These questions need to be answered in further studies, to verify the validity of Tsai’s proposal for Japanese wh-constructions.