Wh-island Construction: Against Uniform LF Movement Hypothesis*

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I claim that Wh-island constraint does not constitute part of Korean grammar. To the extent that the current observation is correct, Huangian account of the phenomena in terms of ECP as crucially based on argument and adjunct dichotomy under the uniform LF wh-movement hypothesis is undermined. I claim that the apparent Wh-island effect for *way* (why) is indeed due to the pragmatic factor of domain of quantification.. I also suggest that the apparent rigid Wh-island effects in Korean may be ascribed to an independent performance factor but not the blocking effect as imposed by the grammar.

Key words: unselective, binding, question, morpheme, argument, adjunct

1. Introduction

It has been claimed that wh-words in in-situ wh-languages should not be treated on a par with wh-words in English (Nishigauchi, 1990; Watanabe, 1992; Cheng, 1991; 1997; Tsai, 1994; Li, 1992; Lin, 1996). When it comes to Korean, Choi (2002) claims that wh-words other than *way* (why) are indefinites in that the former show quantificational variability and scoping out of a syntactic island, given these as two salient properties of indefinites, following Heim (1982) and Lewis (1975). The point is illustrated below in (1).

(1) a. [$_{CP}$ **Nwu**$_i$-ka o-myen] (pro$_i$) nul   wuli-lul   pangmwunhanta.
        who-NOM   come-if   always us-ACC   visit
        'For every x, x an individual, if x comes, x visits us.'

    b. [$_{CP}$ John$_i$-i   **ettehkey**   wuli   cipey   o-myen] (pro$_i$)
        J-NOM   how   our   house-to   come-if   always
        senmwul-ul   kaciko onta.
        gift-ACC   bring
        'For every x, x means, if John comes to our place by x, he
        brings a gift (by x).

    c. *[$_{CP}$John$_i$-i   **way**   o-myen] (pro$_i$)   nul   wuli-lul
        J-NOM   why   come-if   always   us-ACC
        pangmwunhanta.
        visit
        'For every x, x reason, if John comes for x, he visits us (for
        x).' (Choi, 2002, pp. 32-33)

The quantificational force of indefinite wh-words in (1ab), unlike *way*
(why) in (1c), is determined by the adverbial quantifier *nul* (always), and
they can take scope out of the adjunct island as shown by the informal
logical notations.[1] Given their different status as indefinites, Choi (2002)
claims that it is only natural to believe that the two types of wh-words
in Korean have a different scope taking strategy in wh-questions, too: The
scope of the former is marked by the question morpheme with [+wh, +Q]
feature specification (QM hereafter, also see Baker, 1970; Cheng, 1991; 1997)
that unselectively binds them, in the sense of Lewis (1975) and Heim
(1982), and the scope of *way* (why) is marked by its covert movement
into operator position, namely Specof CP, via spec head agreement
driven by the need for proper interpretation by forming operator variable
chain. He calls the former nonpropositional wh-words and the latter
propositional adjunct wh-word since the latter, unlike the former, can
quantify over propositions.

He further claims that contrast between the two types of wh-words in
locality effects in standard islands such as Complex Noun Phrase Islands
(Ross, 1967), Sentential Subject Islands (Ross, 1967), and Adjunct Islands

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1) The original examples in Choi (2002) have *kkok* as the adverbial quantifier. Since some
people suggest that *nul* is closer in meaning to the adverbial quantifier *always* in
English, I will use the latter in this paper.

(Huang, 1982) follows essentially from the proposed asymmetric scope taking strategies for the two types of wh-words, together with the assumption that Subjacency violation in the sense of Chomsky (1986) at LF directly leads to ungrammaticality, as confirmed by the illustrated contrast in grammaticality involving Complex Noun Phrase Islands below in (2), for example.

(2) a. Ne-nun   **nwu**-ka   ssun   chayk-ul   ilkess-ni?
       you-TOP   who-NOM   wrote   book-ACC   read-QM
       'Who is the person x such that you read a book x wrote?'
    b. Ne-nun   John-i   **ettehkey**   kulin   kulim-ul   coaha-ni?
       you-TOP   J-NOM   how   painted   painting-ACC   like-QM
       'What is the means x such that you like pictures John drew by x?'
    c. *Ne-nun   John-i   **way**   ssun   chayk-ul   ilkess-ni?
       you-TOP   J-NOM   why   wrote   book-ACC   read-QM
       'What is the reason x such that you read a book John wrote for x?'

Interestingly, when it comes to Wh-island constructions in Korean, the two types of wh-words does not exhibit asymmetry in that both manage to scope out of the Wh-island. This is rather surprising, given the sharp asymmetry of locality between the two types of wh-words in other standard islands. In this paper, it will be shown that the asymmetric scope taking strategies of the two types of wh-words as claimed by Choi (2002) enable the respective type of wh-words to scope out of Wh-islands, thus accounting for the surprising symmetry between them in Wh-island constructions.[2]

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2) Like *nwukwu* (who), *eti* (where) and *encey* (when) also show quantificational variability and scoping out of a syntactic island as shown in (i), hence indicating that they are also indefinites. Like *nwukwu* (who), *eti* (where) and *encey* (when) does not show scope sensitivity either. In this paper, I will use *nwukwu* (who) for the present discussion of Wh-island effects as a representative of the nonpropositional wh-words.

(i) a. [$_{CP}$ John$_i$ -i   **eti**-lo   oychwulha-myen]   (pro$_i$)   nul   nusskey   tolaonta.
       J-NOM   where-to   go out-if   always   late   returns
       'for every x, x a place, if John goes out to x, he returns home late (from x).'
    b. [$_{CP}$ John$_i$-i   **encey**   o-myen]   (pro$_i$)   nul   wuli-ul   pangmwunhanta.
       J-NOM   when   come-if   always   us-ACC   visit
       'for every x, x a time, if John comes at x, he visits us (at x).'
(ii) a. Ne-nun   [John-i   **eti**-se   ssun   chayk-ul]   ilkess-ni?
       you-TOP   J-NOM   where-at   wrote   book-ACC   read-QM
       'What is the place x such that you read a book John wrote at x?'

2. Wh-island

It was originally observed by Chomsky (1962) that a clause introduced by a wh-word is an island. The sentences below in (3) are typical instances of involving Wh-island violation, resulting from the wh-word in the matrix clause having moved across the Wh-island introduced by the wh-word in the embedded clause, crossing a barrier at some point during its derivation (Chomsky, 1986).[3]

(3) a. ?*What do you wonder who saw?
    b. *How do you wonder who fixed the car?
       (Chomsky, 1986, pp. 48-49).

When it comes to Wh-island effects in wh-in-situ languages, Huang (1982) originally claims that wh-words as in Chinese undergo movement at LF uniformly and the wh-word raised at LF into the embedded comp with [+WH] feature specification as in (4) forms a Wh-island, blocking the matrix scope of the other wh-word out of it, depending on which type of wh-word it is, an argument wh-word or an adjunct wh-word.[4]

(4) [$_{S'}$ comp [+WH] [$_S$ V   [$_{S'}$ WH-word$_i$ comp [+WH] [$_S$ t$_i$ V
    WH-word   ]]]]

The following wh-questions with a *wonder*type matrix predicate, which takes a wh-clause with two wh-words as a complement, are thus typical instances of Wh-island constructions in Chinese:[5]

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(5) a. ni   xiang-zhidao   [**shei**   mai-le   **shenme**]?
    you   wonder   who   buy-ASP   what
    'Who is the person x such that you wonder what x bought?'
    'What is the thing x such that you wonder who bought x?'
   b. ni   xiang-zhidao [**shei   weishenme**   mai-le   shu]?
    you   wonder   who   why   buy-ASP   book
    'Who is the person x such that you wonder why x bought a
    book?'
    #'What is the reason x such that you wonder who bought a
    book for x?'   (Huang, 1982, p. 525)

Huang (1982, pp. 528-530) means by *argument wh-words,* wh-words
which can be arguments of a lexical category such as V, P, N, or A,
whereas by *adjunct wh-words* he means wh-words that cannot be
arguments of these lexical categories. Thus *shei* (who) and *shenme*
(what) are *bona fide* argument wh-words. *Weishenme* (why) is a
genuine adjunct wh-word, since it cannot be an argument of a lexical
category. The argument wh-words in (5) can take matrix scope out of the
Wh-island, while the adjunct wh-word cannot do so, according to Huang's
observation. Huang accounts for the observed asymmetry of locality
effects between the argument wh-word and the adjunct wh-word in (5)
in terms of ECP under the uniform LF wh-movement hypothesis.

To be specific, the argument wh-word scoping out of the Wh-island at
LF to take matrix scope does not pose a problem even though Subjacency
is violated by crossing more than one bounding node, namely, S at once,
during its derivation from the embedded clause into the matrix comp,
since it is ECP but not Subjacency, which says that nonpronominal empty
categories should be properly governed either by lexical government or
by antecedent government that is the valid locality constraint at LF,
according to Huang (1982).[6]

Thus depending on the base position of the argument wh-word, its

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6) The disjunctive ECP by Aoun and Sportiche (1981) is as follows (Huang, 1982, p. 471):
   A properly governs B if and only if A governs B and

   (a) A is a lexical category, or
   (b) A is co-indexed with B.

   Please note that proper government is a subcase of government, and that government
   does not obtain when a maximal projection boundary intervenes between the governor
   and the governee.

trace left behind will be eventually properly governed by either a lexical category or INFL, which is also a proper governor in Chinese. Meanwhile, the impossibility of the adjunct wh-word scoping out of the Wh-island in (5) is due to the ECP violation, since the maximal projection S'intervenes between the antecedent in the matrix clause and its trace in the embedded clause, thus leading to failure of proper government. Huang's ECP account, which is based on argument and adjunct dichotomy, thus seems to account for the apparent asymmetry between argument wh-words and adjunct wh-words in scoping out of the Wh-island so formed under the uniform LF wh-movement hypothesis as in (4).

However, I note that there is an independent factor, which may prevent the adjunct wh-word from taking matrix scope in (5b). The particular example in (5b) forbids *weishenme* (why) from taking matrix scope. The adjunct *weishenme*(why) can quantify over a myriad of reasons, contrary to typical argument wh-words as in (5a), whose domain of quantification is rather easily limited by the context. How come the hearer of the question can be sure that at least one individual in the discourse domain may have bought a book for the reason he possibly comes up with so that the statement he [the hearer] is making turns out to be a felicitous one in soliciting information?

Thus it seems that the domain of quantification, unrestricted, of the adjunct wh-word in wh-questions as in (5b) with *xiang-zhidao* (wonder) as the matrix predicate blocks the matrix scope reading of the adjunct wh-word out of the Wh-island. When the matrix predicate is replaced with *zhidao* (know), with presupposition of knowledge, the reading where *weishenme* (why) takes scope out of the Wh-island is impeccable even for (5b), repeated with the replacement as (6).[7]

(6) ni   zhidao   [**shei**   **weishenme**   mai-le   shu]?
    you   know   who   why   buy-ASP   book
    'Who is the person x such that you know why x bought a book?'
    'What is the reason x such that you know who bought a book for x?'

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7) The informants (Lan Wang, among others) I consulted report that the matrix scope reading of *weishenme* (why) with *zhidao* (know) is quite natural.
   Similar intuition although with *xiang-zhidao* (want to know) as a matrix predicate is reported in Shi (1994, p. 315).

The point I am trying to make here is that Huang's (1982) proposal for ECP that is solely based on the predicate *wonder*type is inadequate, given that the observed case of lack of matrix scope interpretation for the adjunct wh-word embedded in the Wh-island as in (5b) may be ascribed to the independent pragmatic factor of domain of quantification, when it comes to a *wonder*type predicate. Thus, when the factor can be controlled, even the adjunct wh-word can scope out of the Wh-island as shown by the example in (6) above with a *know* type matrix predicate, whose semantics, i.e., presupposition of knowledge, can suppress the role of the pragmatic factor of domain of quantification.

With the proposed intervening pragmatic factor for the adjunct wh-word scoping out of Wh-islands in mind, let us turn to Korean. I will consider wh-questions with a matrix predicate such as *alko sipta* (wonder) as well as *alta* (know) and *kiekhata* (remember), all of which can take a wh-clause as their complement. The point of including the latter predicates is to highlight the pragmatic factor of domain of quantification associated with a *wonder*type predicate with respect to Wh-islands. Throughout I mean Wh-island effect as referring to the phenomenon where one wh-word taking the embedded scope forms a Wh-island and blocks the other from taking scope out of it. Consider the questions in (7) with *alko sipta* (want to know), first.

(7) a. Ne-nun   [nwu-ka   **nwukwu**-lul   chotayhayssnun-ci]
      you-TOP   who-NOM   whom-ACC   invited-QM
      alko sip-ni?
      want to know-QM
      'Who is the person x such that you want to know whom x invited?'
      'Who is the person x such that you want to know who invited x?'

   b. Ne-nun   [**nwu**-ka   **ettehkey**   wassnun-ci]
      you-TOP   who-NOM   how   came-QM
      alko sip-ni?
      want to know-QM
      'Who is the person x such that you want to know how x came?'
      'What is the means x such that you want to know who came by x?'

c. Ne-nun   [**nwu**-ka   **way**   swuep-ey   nucessnun-ci]
   you-TOP   who-NOM   why   class-for   late-QM
   alko sip-ni?
   want to know-QM
   'Who is the person x such that you want to know why x was
   late for the class?'
   #'What is the reason x such that you want to know who was
   late for the class for x?'

To appreciate the Wh-island effects in a precise way in wh-questions as in (7), it should first be noted that for wh-questions with two wh-words to be felicitous questions, the individuals as replaced by the first wh-word be known to both the speaker and the hearer, that is, discourse-linked (Comorovski, 1996). Hence for (7ab), I will suppose the situation where the speaker and the hearer are chatting over *John, Mary, Jack, Bill,* and *Tom,* who were at the spring break party, to which each of them was supposed to invite whoever they wished. And for (7c), I will suppose the situation where the speaker and the hearer are chatting over *John, Mary, Jack, Bill,* and *Tom,* who came late for the class for some reason. With the above context as a background, the hearer of these questions in (7) may typically answer the questions simply by saying *yes* or *no,* interpreting the questions as yes-no questions. This is the most salient answer, which I will come back later.

In addition to the yes-no reading, the questions in (7ab), more or less admit readings where one of the wh-words takes scope out of the other wh-word, although not as salient as yes-no answer, hence not exhibiting Wh-island effects in contrast to the one in (7c), which does not allow the matrix scope of the adjunct wh-word *way*(why) out of the other wh-word. I will call them crossed readings, which are our interest here.[8] The crossed readings are indicated by the pattern of answers in (8-10), given the standard assumption that the scope of a wh-word is reflected by the possible answers to the question (Baker, 1970).

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8) To speakers who admit matrix scope of the embedded wh-words in (7ab), there is a subtle preference for the matrix scope of the subject wh-word over the other wh-word, which I conjecture has to do with discourse-linking effect of the subject wh-word in multiple wh-questions.

(8) a. Na-nun [John-i **nwukwu**-lul chotayhayssnun-ci] alko sipta.
   I-TOP   J-NOM   whom-ACC   invited-QM   want to know
   'I want to know whom John invited.'
   b. Na-nun [**nwu**-ka   caki   yecachinkwu-lul   chotayhayssnun-ci
   I-TOP   who-NOM   his   girl friend-ACC   invited-QM
   alko sipta.
   want to know
   'I want to know who invited his girl friend.'

(9) a. Na-nun   [John-i   **ettehkey**   wassnun-ci]   alko sipta.
   I-TOP   J-NOM   how   came-QM   want to know
   'I want to know how John came to the party.'
   b. Na-nun [**nwu**-ka   bus-lo   wassnun-ci]   alko sipta.
   I-TOP   who-NOM   bus-by   came-QM   want to know
   'I want to know who came by bus.'

(10) Na-nun [John-i   **way**   swuep-ey   nucessnun-ci] alko sipta.
   I-TOP   J-NOM   why   class-for   late-QM   want·to know
   'I want to know why John was late for the class.'

The pattern of answers as given in (8-10) shows that it is only the adjunct wh-word *way* (why) that shows Wh-island effect. The dichotomy of argument wh-words on the one hand and adjunct wh-words on the other in Huang (1982) thus seems to be problematic, given that the adjunct wh-word *ettehkey* (how) can also take matrix scope out of the Wh-island anyhow. Why is it the case that the adjunct wh-word *ettehkey* (how) in (7b) can take matrix scope out of the Wh-island, while the other adjunct wh-word *way* (why) in (7c) cannot? I suggest that the infelicitousness of the matrix scope reading of *way* (why) out of the Wh-island in (7c) has to do with our proposed pragmatic factor of domain of quantification, having nothing to do with the Wh-island effects: To the extent that the hearer cannot be sure that at least one individual in the discourse domain may have come late· for the reason he can possibly think of, he will be discouraged to say a statement soliciting information with the matrix scope of the adjunct *way* (why). Thus he will rather choose the easy option of saying 'I want to know why John was late for the class', knowing that the individual he so picked is one of the individuals who came late for the class for some reason. Meanwhile,

please note that the matrix scope of the adjunct wh-word *ettehkey* (how) in (7b) is possible, since its domain of quantification, namely, means of transportation, is rather limited by the context, in contrast to the example in (7c), whose domain of quantification is virtually unrestricted.[9)]

Up till this point, I considered wh-questions with a *wonder* type matrix predicate in Korean. Now let us consider wh-questions with factive predicates such as *alta* (know) and *kiekhata* (remember) to further examine whether wh-words exhibit Wh-island effects. Consider the questions in (11) with *alta* (know) as matrix predicate, first. For the examples in (11ab) and (11c), I will suppose a situation analogous to the one for (7ab) and (7c), respectively.

(11) a. Ne-nun [**nwu-ka   nwukwu-**lul chotayhayssnun-ci] a-ni?
        you-TOP who-NOM whom-ACC   invited-QM   know-QM
        'Who is the person x such that you know whom x invited?'
        'Who is the person x such that you know who invited x?'
    b. Ne-nun   [**nwu-**ka   **ettehkey**   wassnun-ci] a-ni?
        you-TOP   who-NOM   how   came-QM   know-QM
        'Who is the person x such that you know how x came?'
        'What is the means x such that you know who came by x?'
    c. Ne-nun   [**nwu-**ka   **way** swuep-ey nucessnun-ci] a-ni?
        you-TOP   who-NOM   why class-for   late-QM   know-QM
        'Who is the person x such that you know why x was late for the class?'
        'What is the reason x such that you know who was late for the class for x?'

The hearer of the questions in (11), of course, can answer these questions by either saying *yes* or *no*, which is in fact the most salient reading. Our

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9) A reviewer notes that way (why) (7c) can also have a matrix scope reading. I think this reviewer's intuition in fact supports the present proposal of domain of quantification as the relevant intervening factor in examples as in (7) with a *wonder* type matrix predicate. In my intuition, *way* (why) with a *wonder* type matrix predicate can have matrix scope reading in the following situation: Suppose there occurred a notable event such as LA marathon, which can affect most people's routine life there. In this case the speaker may answer the question as in (7c) by saying 'I want to know who came late for the class due to the marathon', for which he has good reason to believe that the timely arrival of at least one of the individuals in question may have been affected by the event. The domain of quantification of *way* (why) is restricted in this case.

primary concern at this point is whether crossed readings are possible and there exists argument/adjunct asymmetry regarding Wh-island effects. In fact, the hearer can more or less answer the questions in (11) by giving answers to these questions as in (12-14), although not as salient as the yes-no answer.

(12) a. Na-nun   [John-i   **nwukwu**-lul   chotayhayssnun-ci]   anta.
       I-TOP   J-NOM   whom-ACC   invited-QM   know
       'I know whom John invited.'
     b. Na-nun [**nwu**-ka   caki yecachinkwu-lul chotayhayssnun-ci] anta.
       I-TOP   who-NOM his girl friend-ACC   invited-QM   know
       'I know who invited his girl friend.'

(13) a. Na-nun   [John-i   **ettehkey**   wassnun-ci]   anta.
       I-TOP   J-NOM   how   came-QM   know
       'I know how John came.'
     b. Na-nun   [**nwu**-ka   bus-lo   wassnun-ci]   anta.
       I-TOP   who-NOM   bus-by   came-QM   know
       'I know who came by bus.'

(14) a. Na-nun   [John-i   **way**   swuep-ey   nucessnun-ci]   anta.
       I-TOP   J-NOM   why   class-for   late-QM   know
       'I know why John was late for the class.'
     b. Na-nun [**nwu**-ka   kyothongcengchay-ttaymwuney swuep-ey
       I-TOP   who-NOM   heavy traffic-due to   class-for
       nucessnun-ci]   anta.
       late-QM   know
       'I know who was late for the class due to heavy traffic.'

Given the pattern of answers in (12-14), the kind of asymmetry as expected between adjunct wh-words and argument wh-words in the sense of Huang (1982) does not show up. Even the infelicitousness of the matrix scope construal of the adjunct *way* (why) out of a Wh-island found with a *wonder* type matrix predicate rather disappears, as shown by the answers in (14b). Next, consider wh-questions with *kiekhata* (remember) as a matrix predicate as in (15) below, assuming for (15ab) and (15c) an analogous situation for the one in (11ab) and (11c) respectively.

(15) a. Ne-nun   [**nwu**-ka   **nwukwu**-lul   chotayhassnun-ci]
     you-TOP   who-NOM   whom-ACC   invited-QM
     kiekha-ni?
     remember-QM
     'Who is the person x such that you remember whom x invited?'
     'Who is the person x such that you remember who invited x?'
   b. Ne-nun   [**nwu**-ka   **ettehkey**   wassnun-ci] kiekha-ni?
     you-TOP   who-NOM   how   came-QM   remember-QM
     'Who is the person x such that you remember how x came?'
     'What is the means x such that you remember who came by x?'
   c. Ne-nun   [**nwu**-ka   **way** swuep-ey nucessnun-ci] kiekha-ni?
     you-TOP   who-NOM why class-for   late-QM   remember-QM
     'Who is the person x such that you remember why x invited
     Sally?'
     'What is the reason x such that you remember who invited
     Sally for x?'

Again, the hearer can answer the questions in (15) either saying *yes* or
no, which is the most salient answer. It is still possible to answer the
questions by giving answers in (16-18), although not as salient as yes-no
answer.

(16) a. Na-nun   [John-i   **nwukwu**-lul chotayhayssnun-ci] kiekhanta.
     I-TOP   J-NOM   whom-ACC   invited-QM   remember
     'I remember whom John invited.'
   b. Na-nun   [**nwu**-ka   caki   yecachinkwu-lul   chotayhayssnun-ci]
     I-TOP   who-NOM his   girl friend-ACC   invited-QM
     kiekhanta.
     remember
     'I remember who invited his girl friend.'

(17) a. Na-nun   [John-i   **ettehkey**   wassnun-ci]   kiekhanta.
     I-TOP   J-NOM   how   came-QM   remember
     'I remember how John came.'
   b. Na-nun   [**nwu**-ka   bus-lo   wassnun-ci]   kiekhanta.
     I-TOP   who-NOM   bus-by   came-QM   remember
     'I remember who came by bus.'

(18) a. Na-nun [John-i **way** swuep-ey   nucessnun-ci] kiekhanta.
        I-TOP J-NOM   why   class-for   late-QM   remember
        'I remember why John was late for class.'
     b. Na-nun [**nwu**-ka   kyothongcengchay-ttaymwuney swuep-ey
        I-TOP   who-NOM   heavy traffic-due to   class-for
        nucessnun-ci]   kiekhanta.
        late-QM   remember
        I remember who was late for the class due to heavy traffic.'

The pattern of answers in (16-18) for the questions with *kiekhata*
(remember) as matrix predicate again shows that both argument
wh-words and adjunct wh-words can take matrix scope out of a
Wh-island, like questions with *alta* (know) as matrix predicate, with no
significant argument/adjunct asymmetry.

The data as presented thus far shows that questions with *alkosipta*
(want to know) as a matrix predicate on the one hand and complex
questions with *alta* (know) and *kiekhata* (remember) as a matrix
predicate on the other seem to behave differently in one important
aspect. When it comes to questions with predicates of the former type,
matrix scope of adjunct wh-word *way* (why) out of a Wh-island is
infelicitous, which I suggested essentially has to do with the pragmatic
factor of domain of quantification.

Meanwhile, when it comes to questions with *alta* (know) or *kiekhata*
(remember) type matrix predicates, where the aforementioned pragmatic
factor can be controlled, even the infelictousness of matrix scope for the
adjunct wh-word *way*(why) out of a Wh-island disappears. This state of
affairs is actually expected given the presupposition of knowledge carried
by *know* type of predicates. The felicitousness of the matrix scope of the
adjunct wh-word *way* (why) in wh-questions with *alta* (know) or
kiekhata (remember) type matrix predicates thus lends support to our
suggestion that the infelictousness of the matrix scope reading of
way(why) in questions with a *wonder* type predicate is essentially due
to the pragmatic factor of domain of quantification but not Wh-island
effects.

Alternatively, one may suggest that the matrix scope of the adjunct
wh-word *way* (why) out of Wh-islands with *alta* (know) and *kiekhata*
(remember) may be possible due to the semantics of these predicates.
This position does not seem to be tenable, however, given the

ungrammaticality of the sentences in English below in (19) where the
adjunct wh-word *why* takes matrix scope out of the Wh-islands.

(19) a. *Why do you remember who met John?
     b. *Why do you know who met John?

The ungrammaticality of the examples in (19) with the adjunct wh-word
*why*taking matrix scope out of the Wh-island, suggests that Wh-island
effects cannot be canceled by the semantic factor of presupposition of
knowledge. This state of affairs in English further indicates that
wh-words in Korean do not show Wh-island effects: To the extent that
the matrix scope reading of the adjunct wh-word *way* (why) with a
wonder type matrix predicate as in (7c), repeated in (20) is infelicitous, it
is due to the pragmatic factor of domain of quantification.

(20) Ne-nun   [nwu-ka   **way**   swuep-ey   nucessnun-ci]
     you-TOP   who-NOM   why   class-for   late-QM
     alko sip-ni?
     want to know-QM
     'Who is the person x such that you want to know why x came
     late?'
     #'What is the reason x such that you want to know who was late
     for class for x?'

What is important here with regard to Huangian ECP approach is that
the expected argument/adjunct asymmetry with respect to Wh-islands
does not show up. If the present observation for the crossed readings is
correct, Huang (1982)'s observation of the Wh-island effects and proposed
ECP analysis solely based on the *wonder* type matrix predicate is rather
incomplete and thus questionable. I will present an alternative analysis
for the unexpected symmetry of locality effects of wh-words in Korean in
the subsequent section, i.e., the lack of Wh-island effects.

3. Account

Please recall the scope taking strategies of wh-words I am assuming
here, following Choi (2002): A nonpropositional wh-word is unselectively

bound by the question morpheme that serves as a wh-operator and marks its scope, while the propositional adjunct wh-word, not being an indefinite, should undergo movement at LF into Spec of CP to mark its scope via spec-head agreement with the QM, driven by the need for proper interpretation. With this asymmetric scope taking mechanism in mind, let us turn to the analysis of crossed readings, namely, scope taking in Wh-island constructions. For this, let us consider the examples in (11ab) with a *know* type matrix predicate, repeated in (21ab).

(21) a. Ne-nun [**nwu**-ka   **nwukwu**-lul chotayhayssnun-ci] a-ni?
　　　　you-TOP who-NOM whom-ACC   invited-QM   know-QM
　　　　'Who is the person x such that you know whom x invited?'
　　　　'Who is the person x such that you know who invited x?'
　　b. Ne-nun   [**nwu**-ka   **ettehkey** wassnun-ci] a-ni?
　　　　you-TOP   who-NOM   how   came-QM   know-QM
　　　　'Who is the person x such that you know how x came?'
　　　　'What is the means x such that you know who came by x?'

Before we further proceed, a brief digression on the base-generation position of the QM is required. I will assume the QM is base-generated in the head of IP, following Kim (1991) and Choi (2002) whose claims for the proposed position of the QM are crucially based on the fact on Korean verbal morphology and lack of complementary distribution of the QM as shown in (22-23).

(22) John-i   **nwukwu**-lul   manna-ss-*(ni)?
　　 J-NOM   whom-ACC   meet-PAST-(QM)
　　 'Who did John meet?'
　　 (Choi, 2002, p. 93)

(23) John-un   [Mary-ka   **mwus**-ul   sat-nya-ko]   muletta.
　　 J-TOP   M-NOM   what-ACC   bought-QM-COMP   asked
　　 'John asked what Mary bought.' (Kim, 1991, p. 227)

The QM suffixed to the verb is obligatory in (22), suggesting that it is part of the verbal morphology, which projects IP right over TP, given the fact on Korean verbal morphology and the recent proposals of the strict projectionist hypothesis (Pollock, 1989; Chomsky, 1993), viewing the IP

system as an extension of the VP system, with each inflectional morpheme of the verb projecting a separate functional projection. The lack of complementary distribution of the QM with the quotative marker, *ko* (that), which projects CP further indicates that QM projects IP, although the argument is not that strong, though. With this back ground regarding the base-position of the QM in mind, let us go back to the data in (21).

When it comes to the reading where the subject wh-word and the other wh-word in (21) take matrix and embedded scope, respectively, it is derived by the unselective binding of the subject wh-word by the matrix QM and the other wh-word by the embedded QM, respectively, as illustrated by the LF representation below in (24) with the irrelevant details suppressed.

(24) [$_{CP}$ [$_{I'}$QM$_j$ [$_{VP}$ V   [$_{CP}$[$_{IP}$ subject   WH-word$_j$ [$_{I'}$ QM$_i$ [$_{VP}$ V   WH-word$_i$
   ]]]]]]]

Although Korean is a strictly head-final language, I will notate the LF representations as if it were a head-initial language throughout this chapter, purely for the reader's convenience. When it comes to the reading where the subject wh-word takes embedded scope and the other wh-word takes the matrix scope in (21), the reading is derived by the unselective binding of the subject wh-word by the embedded QM and the other wh-word by the matrix QM, respectively, with the embedded QM raised into a position, i.e., the head of the embedded CP such that it can bind the subject wh-word, as illustrated by the LF representation in (25) with the irrelevant details suppressed.

(25) [$_{CP}$ [$_{I'}$ QM$_j$ [$_{VP}$ V [$_{CP}$ [$_C$ QM$_i$ [$_{IP}$ subject WH-word$_i$ [$_{I'}$ t$_i$ [$_{VP}$ V
   WH-word$_j$]]]]]]]]

Since the QM in Korean is base-generated in a position lower than the subject, the embedded QM in (25) should be raised into the head of the embedded CP from which it can bind the subject wh-word, which is a nonpropositional wh-word and thus is an indefinite. Otherwise the indefinite wh-word will not be properly interpreted.

As shown thus far, the unselective binding of nonpropositional wh-words by the QM essentially accounts for the reading where

wh-words in (21) take scope over each other without exhibiting Wh-island effects. Why do the questions in (21) not exhibit Wh-island effects? Assuming Wh-island constraint as subsumed under the explanatory umbrella of Subjacency in Chomsky (1986), Wh-island constraint violation is not an issue from the very beginning, since none of the two wh-words undergo movement at LF in (21). Next let us turn to examples with a nonpropositional wh-word and a propositional adjunct wh-word in the embedded clause as in (11c), repeated in (26).

(26) Ne-nun   [**nwu**-ka   **way** swuep-ey nucessnun-ci]   a-ni?
     you-TOP   who-NOM   why class-for   late-QM   know-QM
     'Who is the person x such that you know why x was late for the class?'
     'What is the reason x such that you know who was late for the class for x?'

Consider the reading where the subject wh-word takes matrix scope and the propositional adjunct wh-word takes embedded scope in (26), first. The reading derives by the spec head agreement of the propositional adjunct wh-word with the embedded QM at Spec of the embedded CP and the unselective binding of the subject wh-word by the matrix QM, as illustrated by the following LF in (27) with the irrelevant details suppressed.

(27) $[_{CP}$ [QM_i $[_{VP}$ V $[_{CP}$ why_j [$_C$ QM_k $[_{IP}$ subject WH-word$_i$ $[_I$ t_k $[_{VP}$ V t_j]]]]]]]]

Please recall that the propositional adjunct wh-word should undergo movement at LF to mark its scope via spec-head agreement with the QM into operator position, namely Spec of CP, driven by the need for proper interpretation. The matrix scope reading of the subject wh-word again does not show Wh-island effects, since no movement is involved. As shown above, the asymmetric scope taking strategies of the two types of wh-words enable wh-words to scope over each other without exhibiting the Wh-island effects.

Next consider the more interesting reading, where the propositional adjunct wh-word takes matrix scope and the subject wh-word takes the embedded scope in (26). How will this be accounted for in the present

system? The LF movement of the propositional adjunct wh-word should be first into the embedded Spec of CP, assuming that movement is guided by the economy principle of shortest movement (Chomsky, 1995). The movement is indicated in the LF below in (28) with the irrelevant details omitted.[10]

(28) $[_{CP}$ why$_i$ $[_{C'}$ QM$_i$ $[_{IP}$ subject NP $[_{I'}$ t$_i$ $[_{VP}$ V $[$ $_{CP}$ t$_j$ $[_C$ QM$_k$ $[_{IP}$ subject
    WH-word$_k$ $[_{I'}$ t$_k$ $[$ $_{VP}$ V t$_i$ $]]]]]]]]$

The matrix QM is raised into the head of the matrix CP, driven by the need to enter into spec-head agreement with the propositional adjunct wh-word in the matrix Spec of CP, while the embedded QM is raised into the head of the embedded CP to unselectively bind the indefinite subject wh-word.[11] One may wonder why the propositional adjunct wh-word can move via the embedded Spec of CP into the Spec of matrix CP without checking off its wh-feature and thus ending up with having embedded scope. In fact, the propositional adjunct wh-word cannot check off its wh-feature at the Spec of the embedded CP, crucially given the minimalist assumption, according to which the wh-feature of the QM, i.e., the attracter, cannot be multiply accessed in the computation, since the wh-feature of the attracter is uninterpretable. With this assumption, it hence follows that the propositional adjunct wh-word in the embedded Spec of CP cannot check off its wh-feature, since the QM already discharged its wh-feature via unselective binding of the subject wh-word. Hence as a last resort, it should be raised into the matrix Spec of CP where it can have its wh-feature checked off via spec-head agreement with the QM in the head of the matrix CP at LF, leading to the matrix scope reading of the propositional adjunct wh-word.

Let us see whether the movement of the propositional adjunct wh-word into Spec of the matrix CP violates Wh-island constraint, as subsumed under Subjacency (Chomsky, 1986). The movement of the propositional adjunct wh-word via the embedded Spec of CP into the matrix Spec of CP does not violate Wh-island constraint, since it does not cross a barrier

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10) The first t$_i$ and the second t$_j$ in (28) are the traces of QM and *why*, respectively.

11) The movement of the matrix QM into the head of CP in (28) is global in that it is not myopic. This does not fit into the proposals in the minimalist program that computation should not be global as a reviewer points out.

during its derivation due to the availability of the embedded Spec of CP position.

Before closing the section, to be fair, I should note that the present intuition for the overall lack of Wh-island effects in Korean is rather controversial. Many linguists in Korean literature report rigid Wh-island effects. Kim (1991) and Joo (1989) observe that a wh-question as in (29) with a *wonder* type matrix predicate can be construed as yes-no question only.

(29) Ne-nun [**nwu**-ka   **mwues**-ul sassnun-ci] kwungkwumha-ni?
     you-TOP who-NOM   what-ACC bought-QM   wonder-QM
     'Do you wonder who bought what?'
     (Joo, 1989, p. 110)

Chung (1996) further reports that wh-questions with *know* type matrix predicate can have yes-no reading only.[12]

(30) John-un [**nwu**-ka   **mwues**-ul   kacyeo-n-ci]   a-ni?
     J-TOP   who-NOM   what-ACC   bring-COMP   know-QM
     'Do you know who brought what?'
     (Chung, 1996, p. 68)

I will briefly touch on the rigidity of Wh-island effects, with no intension to provide a satisfactory answer. The rigid Wh-island effects according to these researchers with respect to (29-30), is ascribed to the obligatory presence of the embedded QM, which somehow does not allow the wh-word to scope out of it. However, it is not clear whether the Wh-island effects are as rigid as observed by them, given that the matrix scope of the object wh-word in the embedded clause is most natural in Korean as in (31).[13]

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12) Chung (1996, p. 67. fn.15), however, acknowledges that the subject wh-word can marginally take matrix scope with a heavy focus on it.

13) A reviewer notes that he/she does not readily share with the present intuition regarding (31).

(31) **Nwu**-ka   [John-i   **eti**-se   **nwukwu**-lul   mannass-nunci]
who-NOM   J-NOM   where-at   whom-ACC   met-QM
a-ni?
know-QM
'Who knows where John met whom?'

One can answer the question in (31) by saying *I know where John met Mary*. Given the standard assumption that the scope of the wh-word is indicated by the answer to the wh-word, the answer clearly indicates that the object wh-word can take matrix scope out of the embedded clause. The same intuition is reported in Dayal (1996) with regard to Japanese, a language that also requires the obligatory presence of the embedded question morpheme but matrix scope of the embedded wh-word is natural as in (32).

(32) **Dare**-ga   [Mary-ga   **doko**-de   **nani**-o   katta ka]
who-NOM   M-NOM   where-at   what-ACC   bought QM
sitte-imasu ka?
know   QM
'Who knows where Mary bought what?' (Dayal, 1996, p. 93)

Hence to the extent that the embedded QM does not show blocking effects for matrix scope of the wh-word in the embedded clause as shown in (31-32), the lack of matrix scope of the embedded wh-words in (29-30) as reported by Joo (1989), Kim (1991) and Chung (1996) may be due to a factor independent of the blocking effect by the embedded QM. I conjecture that it may have to do with the performance strategy taken from the hearer's side, asking for a general information without picking a particular individual, thus putting on the speaker the burden of providing maximal information for the hearer with a *wonder* type matrix predicate in (29). A different performance factor may contribute to the lack of matrix scope of the wh-words in (30). Since thehearer does not know what the speaker is specifically soliciting for, he may be reluctant to give an answer by providing information either with the first wh-word or the second wh-word but rather goes with the easy and safe option of answering the question, saying *yes*. Hence the rigidity of Wh-island effects to those researchers may be due to the performance factor that contributes to suppressing the crossed-reading of the examples in (29-30),

although the grammar has the capacity to yield the crossed readings via unselective binding. Therefore, the rigidity of Wh-island effects is expected to be subject to variation. After all, Lee (1982) observes that the subject wh-word can take matrix scope, with no Wh-island effects as in (33).

(33) Bill-i   ne-key   [**nwu**-ka   **mwuess**-ul   hayssnya-ko]
      B-NOM   you-DAT   who-NOM   what-ACC   did-COMP
      mwulepoass-ni?
      ask-QM
      'For which person x, Bill asked you for which thing y, x did y.'
      (Nishigauchi, 1990, p. 35)

4. Conclusion and Theoretical Implications

As shown thus far, the propositional adjunct wh-word and nonpropositional wh-words in Korean show symmetry in scoping out of Wh-islands, which is quite unexpected, at least on the surface, given the asymmetry of locality between them in constructions such as Complex Noun Phrase Islands, Sentential Subject Islands, and Adjunct Islands. It was shown, however, that the asymmetric scope taking strategies of the two types of wh-words both enable wh-words of the respective type to take scope out of Wh-island, without violating the constraint. To the extent that the current observation for the lack of Wh-island effects in Korean is correct, Huang's (1982) account of the phenomena in terms of ECP, which is crucially based on argument and adjunct dichotomy under the uniform LF wh-movement hypothesis is seriously undermined. In Huang's system, Wh-islands are invariably created by one wh-word being raised into the embedded comp at LF (Spec of CP in current terminology), such that the ability to scope out of the Wh-island is predicted to vary for the other wh-word, depending on which type of wh-word it is, an argument wh-word or an adjunct wh-word. The rigid Wh-island effects as reported by Joo (1989) and Kim (1991) may be due to an independent performance factor of hearer strategy but not the blocking effect of the embedded QM, imposed by the grammar, contrary to their claim.

The proposed account for the crossed reading where the subject wh-word and the other wh-word takes embedded and matrix scope,

respectively as in (21) has a nontrivial theoretical implication with regard to unselective binding. The reading was accounted for in terms of unselective binding of the matrix QM into the domain of the local binder of the embedded QM. This certainly contradicts the unselective binding mechanism as proposed in Heim (1982), according to which the unselective binding of an indefinite by a binder into the domain of the local binder is prohibited.

(34) Quantifier Indexing
     Copy the referential index of every indefinite NP as a selection
     index onto the lowest c-commanding quantifier.
     Heim (1982, p. 146)

Thus if the nonlocal unselective binding is indeed what is responsible for the crossed reading in (21) where the nonsubject wh-word scopes out of the subject wh-word, this seems to suggest that the quantifier indexing mechanism, however, is too strong (Reinhart, 1997).

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