

On the Island (In)sensitivity of In-situ *Wh*-questions in Korean*

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Kim, Okgi & Park, Seulkee. 2025. On the Island (In)sensitivity of In-situ *Wh*-questions in Korean. *Journal of Linguistic Studies* 30(1), 49-74. Under an unselectively binding analysis, it has been argued that island (in)sensitivity of *wh*-in situ falls under the so-called Noun versus Adverb Generalization (NAG), which states that an in-situ *wh*-phrase is island-free iff it is (or contains) a *wh*-nominal (Tsai, 1994ab 1999, 2008; Stepanov & Tsai, 2008; Fujii et al., 2014). In this study, however, we show that the NAG is not sufficient to capture the island behaviors of some (non-)standard in-situ *wh*-phrases in Korean. Borrowing insights from Murphy (2017), we instead suggest that the island-(in)sensitivity of in-situ *wh*-phrases in Korean may correlate not with their semantic or categorial status, but with their base-generated positions in syntax. Specifically, we suggest that an in-situ *wh*-phrase that is base-generated in the CP domain is island-sensitive, while an in-situ *wh*-phrase that is base-generated below CP or TP is island-insensitive. (Kyung Hee University)

Key words : island sensitivity, (non-)standard *wh*-questions, unselective binding, category-based, Noun versus Adverb Generalization

1. The puzzle

Since the influential work by Huang (1982ab), the study of *wh*-in situ licensing has centered on argument-adjunct asymmetries with respect to

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sensitivity to strong islands such as the Complex NP Island and the Adjunct Island (Ross, 1967). The following contrast in Mandarin Chinese illustrates what the asymmetry means:

- (1) Complex NP Island (Huang et al., 2009, pp. 263, 266; Murphy, 2017)
- a. ni zui xihuan [DP [CP mai shenme de] ren]?
you most like buy what DE person
'For which thing x , do you like the person who bought x ?'
 - b. *ni zui xihuan [DP [CP weishenme mai shu de] ren]?
you most like why buy book DE person
'For which reason x , do you like the person who bought books for x ?'

In (1a), the *wh*-argument *shenme* 'what', which takes matrix scope, occurs inside the relative clause island but does not cause island effects. In (1b), on the other hand, the *wh*-adjunct *weishenme* 'why' is disallowed to occur in the same island environment.

Such an asymmetry in island sensitivity is not restricted to Chinese, but also exists across *wh*-in situ languages. Consider the following Korean and Japanese examples:

- (2) Complex NP Island in Korean:
- a. Mimi-ka [DP [CP mwues-ul ssu-n] salam-ul] pinanhayss-ni?
Mimi-NOM what-ACC write-REL person-ACC criticized-QUE
'Mimi criticized the person who wrote what?'
 - b. *Mimi-ka [DP [CP Kim-i way ssu-n] chayk-ul]
Mimi-NOM Kim-NOM why write-REL book-ACC
ilk-ess-ni?
read-PST-QUE
'Mimi read the book that Kim wrote why?'
- (3) Complex NP Island in Japanese (Lasnik & Saito, 1984, p.245)

- a. [DP [CP Taro-ga nani-o te-ni ireta] koto]-o sonnani
 Taro-NOM what-ACC obtained fact-ACC much
 okotteiru-no?
 angry-Q
 'For which *x*, are you so angry about the fact that Taro obtained *x*?'
- b. [DP [CP Taro-ga naze sore-o te-ni ireta] koto]-o sonnani
 Taro-NOM why it-ACC obtained fact-ACC much
 okotteiru-no?
 angry-Q
 'For which reason *x*, are you so angry about the fact that Taro obtained it for *x*?'

To account for such puzzling asymmetries in *wh*-in situ languages, three prominent approaches have been suggested: one by Huang (1982ab) and the other two by Reinhart (1998) and Tsai (1994ab, 1999, 2008), respectively. Huang tries to account for the argument-adjunct asymmetry in island sensitivity in terms of the empty category principle. On the other hand, both Reinhart and Tsai propose an unselective binding (UB) analysis which assumes that the *wh*-phrase which provides a choice function variable is licensed in situ by being unselectively bound by its c-commanding interrogative operator (Q-operator) in the CP-domain. However, Reinhart's and Tsai's analyses crucially differ in terms of the criterion regulating the possibility of introducing a choice function variable. Reinhart's semantics-based UB approach assumes that the availability of UB is determined by whether a given *wh*-phrase introduces a choice function variable which ranges over individuals. On the other hand, Tsai's category-based UB approach argues that only a nominal element introduces a variable subject to UB.

In this paper, however, we show that the previous analyses, with a special focus on Tsai's category-based UB analysis, are not sufficient to account for the island behaviors of some (non-)standard in-situ *wh*-phrases in Korean. Instead, we suggest that the island-(in)sensitivity of in-situ

wh-phrases in Korean may be closely tied to their base-generated positions in syntax. Specifically, we propose that an in-situ *wh*-phrase that is base-generated in the CP domain is island-sensitive, while an in-situ *wh*-phrase that is base-generated below CP or TP is island-insensitive.

The remainder of this paper is organized as follows. The next section reviews the key points of the previous analyses. Then, the subsequent sections discuss some (potential) counterexamples to the previous analyses and offer an alternative view. Then we conclude.

2. Review of Previous Analyses

2.1 Huang (1982ab): LF-movement and Empty Category Principle

Huang (1982ab) proposes that since Chinese *wh*-in situ undergoes LF movement, it should be sensitive to the Empty Category Principle (ECP) as a LF constraint (Chomsky 1981). Specifically, empty elements (i.e., traces) must be properly governed either by a lexical category or its (moved) antecedent. On this view, the argument-adjunct asymmetry in strong island effects is explained in the following way. The trace created by the LF-movement of the *wh*-argument inside the island domain is properly governed by the lexical verb *mai* ‘buy’ and, thus, the ECP is satisfied. On the other hand, the trace of the *wh*-adjunct in (1b) cannot be either lexically or antecedent-governed and, therefore, violates the ECP.

Huang introduces other asymmetric cases in island effects. Consider the following Chinese examples:

- (4) a. Ni xiang kan [DP [CP ta (zai) shenmeshihou pai de]
 you want see he at when film DE
 dianying]?
 movie
 ‘You want to see movies that he filmed when?’

- b. [DP [CP zai nali fei de] niao] zui ziyou?
 at where fly DE bird most free
 'Birds that fly where are most free?'

According to Huang's view, both *shenmeshihou* 'when' and *nali* 'where' are treated as the NP arguments taken by the preposition *zai* 'at', which may not be phonetically realized in the latter case. Since they are arguments just like *sheme* 'what' and thus are properly governed, they can be island-free.

2.2 Reinhart (1998) and Tsai (1994ab, 1999, 2008): Semantics- or Category-based Unselective Binding

The argument-adjunct asymmetry under discussion has been taken as a strong supporting argument for an unselective binding (UB) of *wh*-in situ. The UB is a non-movement mechanism which assumes that a *wh*-phrase is licensed in situ by being unselectively bound by its c-commanding interrogative operator (Q-operator) in the CP region, just in case the given *wh*-phrase introduces a choice function variable subject to UB (Reinhart, 1998; Tsai, 1994ab). To illustrate this, let us consider (5).

- (5) a. ni kanjian-le shei?
 you see-asp whom
 'Who did you see?'
 b. [CP Q_f . . . [you see f(person)]] (Tsai, 1994b: (3))

In the above example, the *wh*-argument *shei* 'whom' that introduces a choice function variable is unselectively bound by the Q operator directly merged at the scope position in the CP domain.

There have been two representative versions of UB: the semantics-based UB proposed by Reinhart (1998) and the category-based UB proposed by

Tsai (1994ab, 1999, 2008). Both of the versions crucially differ in terms of the criterion regulating the possibility of introducing a choice function variable. The semantics-based UB approach assumes that the availability of UB is determined by whether a *wh*-phrase introduces a choice function variable which ranges over individuals. Under this view, *wh*-arguments such as *who* and *what* can be unselectively bound since they quantify over individuals, whereas *wh*-adjuncts such as *why* are not subject to UB because they do not introduce an individual-type variable. On the other hand, the category-based UB approach argues that only a nominal element introduces a variable subject to UB. On this view, *wh*-arguments can be licensed in situ since they are *wh*-nominals that introduce an unselectively bindable variable, whereas *wh*-adverbs cannot be unselectively bound because they do not have nominal (sub)parts. That is, the asymmetry in island effects in *wh*-in situ languages follows from the “nominal-adverb” dichotomy, also known as the Noun versus Adverb Generalization, in contrast to Huang’s and Reinhart’s approaches, which both attribute the island asymmetry to the “argument-adjunct” distinction.

Under both of the UB approaches, a *wh*-argument buried inside an island can be licensed in situ by UB and thus does not show island effects, as illustrated in (6a). On the other hand, a *wh*-adjunct like *why*, which cannot be licensed in situ by UB, relies on local binding, leading to its covert movement out of the island, incurring island violation, as illustrated in (6b).

- unselective binding
- (6) a. ✓LF: [CP Op_i C_[wh] [Island ... wh_i ...]]
- covert movement
- b. *LF: [CP wh_i C_[wh] [Island ... t_i ...]]

With the category-based UB mechanism, Tsai (2008) and Stepanov & Tsai (2008) account for the island asymmetry observed in Chinese. Consider the case of a complex NP island, for instance:

- (7) a. ni zui xinshang [[wei(-le) shenme gongzuo] de ren]?
 you most appreciate for(-LE) what work DE people
 'What is the purpose x such that you appreciate most people
 who work for x ?'
- b. *ni zui xinshang [[weishenme gongzuo] de ren]?
 you most appreciate why work DE people
 'What is the reason x such that you appreciate most people
 who work for x ?' (Stepanov & Tsai, 2008, p. 594)

As observed here, unlike the purpose *wh*-adjunct *wei(-le) shenme*, the reason *wh*-adjunct *weishenme* cannot occur within the relative clause island. Tsai (2008) takes such a contrast to be due to the categorial distinction between the two *wh*-expressions: the purpose *wei(-le) shenme* has a nominal part (*shenme*) in it, but the reason *weishenme* is a simplex *wh*-adverb. Consequently, the purpose *wh*-adverbial, which involves the nominal element introducing a variable, can be licensed in situ by UB, while the reason *wh*-adjunct, which does not have a variable subject to UB, must covertly move out of the island to the CP domain to take scope, resulting in violation of the Complex NP Constraint.

Another advantage of the category-based UB analysis is that it can explain the peculiar behavior of Chinese *zenmeyang* 'how' in locality contexts. The *wh*-adjunct can have either a manner reading or an instrumental reading as shown in (8). However, if the *wh*-adjunct occurs within a complex NP island, only the instrumental reading survives, as illustrated in (9).

- (8) ta shang-ci zenmeyang dun niurou?
 she last-time how stew beef
 a. 'By what means did she stew beef last time?'
 b. 'In what manner did she stew beef last time?' (Tsai, 1994b, p. 83)
- (9) ni zui xihuan [NP [CP Op_i [IP ta zenmeyang duen t_i]]]
 you most like she how stew
 de niuroui)?

DE beef

- a. 'What is the means x such that you like best beef which she stewed by x ?'
- b. '#What is the manner x such that you like best beef which she stewed in x ?' (Stepanov & Tsai, 2008, p. 596)

According to Stepanov & Tsai (2008), the instrumental *zenmeyang* has the nominal part *-yang* 'manner' in it, whereas the manner variant is a fused adverb. Therefore, the former can introduce a choice function variable subject to UB and is licensed in situ. This is why the instrumental reading is available. The latter, however, cannot introduce a variable for UB and thus must raise at LF out of the island to take scope, in which case it violates the Complex NP Constraint. This is why the manner reading is unavailable.

3. Counterexamples to the Previous Analyses

In this section, we show that island behaviors of wh-in situ in Korean are not fully regulated by its semantic status (i.e., "individual-type" variables by Reinhart (1998)) or categorial status (i.e., "noun-adverb" dichotomy by Tsai (1994ab, 1999, 2008)).

3.1 Rethinking *How*-questions in Korean

First, Reinhart's UB-based account of argument-adjunct asymmetries in island sensitivity is insufficient to account for Korean interrogatives that involve the ordinary *wh*-adjunct *etlehkey* 'how' inside an island:

- (10) a. Mimi-nun [DP [CP Kim-i etlehkey yoliha-n] umsik-ul]
 Mimi-TOP Kim-NOM how cook-MOD food-ACC
 mek-ess-ni?
 eat-PST-QUE

'Mimi ate the food that Kim cooked how?'

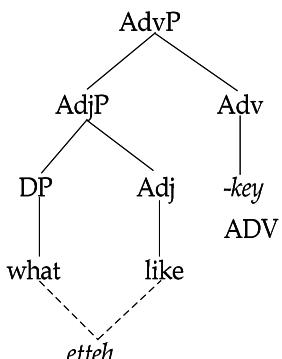
- b. John-un [Mary-ka cip-ul ettehkey swulihay-se]
 John-TOP Mary-NOM house-ACC how fix-because
 nollass-ni?
 surprised-QUE

'John was surprised because Mary fixed the house how?'

As seen here, the *wh*-adjunct is island-insensitive to the complex NP island (10a) and the adjunct island (10b). Regarding this, Reinhart's analysis incorrectly predicts the *wh*-adjunct to be island-sensitive to the islands, since it cannot be licensed in situ within the island as it is unable to introduce an individual-type variable to UB.

In order to explain the island insensitivity of manner *ettehkey*, Shin & Tsai (to appear) adopt the unselective binding analysis and argue that the *wh*-adjunct, unlike its causal variant that is indecomposable, can be decomposed into the following subparts (see Shin & Tsai for the morpho-syntactic analysis of resultative *ettehkey*):¹

(11)



(Shin & Tsai, to appear: (55))

¹ Adopting the category-based UB approach, Chung (2005) takes a different view and argues that *ettehkey* is decomposed into $[_{\text{DP}/\text{NP}} e\text{-}t\text{te}] \text{-} h\text{-}key$ 'Det-CNP-do-adverbializer', where the first part *e* is a determiner which combines with the common noun phrase *tte* that follows it, the third part *h(a)* is a transitive verb that takes the preceding DP/NP, and the final part *-key* is an adverbializer.

With reference to the Middle Korean form *:es-t>i* ‘what-like,’ Shin & Tsai offer the insightful view that in *etlehkey*, the *et* ‘what’ is taken by the similitative adjective *t>i* ‘like’ as its complement, forming the AdjP, which in turn combines with the adverbializer suffix *-key*, resulting in the AdvP. On this view, the island insensitivity of manner *etlehkey* is simply captured since the *wh*-adjunct contains the nominal part *et* and thus is unselectively bound by the Q-operator in the CP-layer (see Shin & Tsai for detailed discussion on the syntactic positions of causal/manner/resultative *etlehkey* from a cartographic perspective). Although Shin & Tsai’s approach has advantages in accounting for various aspects of *wh*-in situ in island (in)sensitivity, it would be challenged by *wh*-questions involving 어찌 *ecci* ‘how’. To illustrate this, let us first discuss the morpho-syntactic status of *ecci*.

According to the National Institute of Korean Language, the *wh*-expression *ecci* is categorized as an adverb in the Contemporary Korean. In addition, with respect to its historical origin, it has been generally accepted that *ecci* is derived from its archaic form 엇디 *esti* through the process of fortition and palatalization. That is, it has undergone the following development pathway: *esti* > 엇지 *esci* > *ecci* (see Kim 2012 for details). In terms of the etymology of *esti*, although it is hypothetical, it has been assumed that the root *es* is suffixed with *-e* or *-i*, resulting in the forms 엇더 *este* or *esti* (Kim, 2012). Under this view, the *e* in the modern form *ecci* could be understood as derived from the root *es* with the loss of *s*. Then, in order to understand the categorial status of the *e*, which is crucial for the UB analysis, we need to identify the categorial status of the root *es*.

According to Han (2015), the expression *es* is used as an independent word in 『論語 Lunyu』 written during the Spring and Autumn Period and the Warring States Period. In it, the word 何 *es* is used as an interrogative pronoun functioning as an object, a predicate, a determiner, or an adverbial. Here, let us consider the object and adverbial uses only (see Han 2015 for the other uses and relevant examples). Observe the

following examples (taken from Han 2015, pp. 63-66):

(12) [Object]

子夏云何?

“자하는 뭐라고 하던가?”

“What did Zaha say?”

(13) [Adverbial]

a. 何爲則民服?

“어떻게 하면 백성들이 따릅니까?”

“How can we make the people follow?”

b. 何爲則民服?

“그런데 왜 아무도 이 길을 가지 않는 것인가?”

“But why does no one take this path?”

As seen in (12), the *wh*-pronoun 何 *es* is interpreted as *what*, functioning as the object in the sentence. On the other hand, as in (13), when it functions as an adverbial, it can be interpreted either as *why* or *how*. These semantic meanings of the adverbial 何 *es* enable us to understand how the modern form *ecci*, which is assumed to contain the derived form *e* from *es*, can have either reason or manner readings, as given in (14).

- (14) a. i nolay-lul ecci pelsse a-ni? (reason reading)
 this song-ACC how already know-QUE
 ‘Why do you already know this song?’
- b. ku mwuncay-lul ecci haykyelha-ci? (manner reading)
 the problem-ACC how solve-QUE
 ‘How do I solve the problem?’

In the above examples, the *ecci* can be replaced by *ettehkey* without affecting the intended meanings.

Now, let us look at whether the *wh*-adverb *ecci* behaves like *ettehkey*

with respect to island (in)sensitivity, with reference to the Complex NP Constraint and the Adjunct Constraint. Observe (15).

- (15) a. Mimi-nun [DP [CP Kim-i ecci yoliha-n] umsik-ul]
 Mimi-TOP Kim-NOM how cook-MOD food-ACC
 mek-ess-ni?
 eat-PST-QUE
 '*What is the cause *x* such that Mimi ate the food that, due
 to *x*, Kim made?'
 'What is the manner *x* such that Mimi ate the food that, in
 x, Kim made?'
 b. John-un [Mary-ka cip-ul ecci swulihayss-killay]
 John-TOP Mary-NOM house-ACC how fixed-since
 nollass-ni?
 surprised-QUE
 '*What is the cause *x* such that John was surprised because,
 due to *x*, Mary fixed the house?'
 'What is the manner *x* such that John was surprised because,
 in *x*, Mary fixed the house?'

As we can see here, just like the two variants of *etlehkey*, manner *ecci* is island-free, while causal *ecci* is not. Under the category-based UB analysis proposed by Shin & Tsai, the island insensitivity of manner *ecci* can be accounted for by assuming that the *wh*-expression contains the *wh*-pronominal subpart *e* (derived from *es*) and, thus, it is able to be unselectively bound by the Q-operator in the CP domain. However, a nontrivial issue comes from the island sensitivity of causal *ecci*. As noted above, when *ecci* functions as an adverbial, the *wh*-nominal root *e* yields a reason or manner reading depending on context. This means that causal *ecci* is also taken to have the unselectively bindable *wh*-pronoun *e*. However, as we have seen in (15), unlike its manner variant, the causal *ecci* exhibits the island sensitivity to the strong

islands. In order for the category-based UB analysis to avoid this issue, it would need to analyze causal *ecci* as a pure *wh*-adverb that is indecomposable, unlike its manner variant. However, in our opinion such a direction seems to be not desirable and feasible.

3.2 *What* as *Why*-questions in Korean

As discussed in previous literature (e.g., Kim, 2022; Kim & Kim, 2025), Korean employs so-called *what-as-why* questions in which the nominal *wh*-adjunct *what* is interpreted as *why* (*the hell*), as illustrated in (16).²

- (16) a. Kim-un mwe-l kulehkey ilccik ttenass-ni?
 Kim-TOP what-ACC so early left-QUE
 'Why (the hell) did Kim leave so early?'
 b. Kim-un mwe-l tto tokil-ey kass-ni?
 Kim-TOP what-ACC again Germany-LOC went-QUE
 'Why (the hell) did Kim go to Germany again?'

In the above examples, the nominal *wh*-expression *mwe-l* occurs in the intransitive clause, meaning that it behaves as an adverbial. In terms of meaning, it is used to ask for the cause of the unexpected event in question (see Kim 2022 and Kim & Kim 2025 for detail discussion on the syntactic and semantic properties of the nominal *wh*-adjunct).

The category-based UB approach would face difficulty in accounting for the fact that the nominal *wh*-adjunct *mwe-l* is island-sensitive, just like the regular *wh*-adverb *way*, whereas its ordinary counterpart, i.e., a nominal *wh*-argument, is not. Consider the following examples:

² The unreduced, full form of *mwe-l*, i.e., *mwues-ul*, cannot be used as a nominal *wh*-adjunct, as in (i) (Kim, 2022; Kim & Kim, 2025).

(i) *Kim-un mwues-ul kulehkey ilccik ttenass-ni?
 Kim-TOP what-ACC so early left-QUE
 'Why (the hell) did Kim leave so early?'

- (17) a. *Mary-nun [Kim-i mwe-l kulehkey ilccik ttenga-se]
 Mary-TOP Kim-NOM what-ACC so early left-because
 hwakana-ss-ni?
 angry-PST-QUE
 ‘Mary got angry because Kim left so early why?’
- b. *Mary-nun [Kim-i way kulehkey ilccik ttenga-se]
 Mary-TOP Kim-NOM why so early left-because
 hwakana-ss-ni?
 angry-PST-QUE
 ‘Mary got angry because Kim left so early why?’
- c. Mary-num [Kim-i mwe-l hayse] kipwun-i
 Mary-TOP Kim-NOM what-ACC do.because feeling-NOM
 an coh-ni?
 not like-QUE
 ‘Mary is feeling bad because Kim did what?’

Those advocating for the Tsai-style UB analysis would predict that the non-standard *wh*-adverbial *mwe-l* induces no island effects since it is a *wh*-nominal which can introduce a variable subject to UB. But this is not the case, as we have seen in (17a). In the meantime, a different perspective on the morpho-syntactic make-ups of *wh*-adverbial *mwe-l* is provided by Park (2023): he analyzes the suffix *-l* not as an accusative case marker, but rather a consonant inserted for the sake of phonetic articulation in the grammaticalization process of combining *mwe* ‘what’ with the reason/cause particle *-lo*. Likewise, under this view, the island sensitivity of *wh*-adjunct *mwe-l* is not captured since it has the *wh*-nominal.

Ochi (2015) also points out that the category-based UB mechanism is not sufficient to account for island behaviors of Japanese nominal *wh*-adjunct *nani-o*, which corresponds to Korean *wh*-adjunct *mwe-l*:

- (18) *Kimi-wa [[nani-o awate-teiru] hito]-o shikatta no
 you-TOP what-ACC panic-PROG person-ACC scolded Q

“*Why_i did you scold [a person [who was panicking t_i]]?”
 (Ochi, 2015: (70b))

As observed here, the causal *wh*-adjunct *nani-o* cannot occur inside the relative clause island, even though it is a *wh*-nominal. This is a challenge for the category-based UB analysis. To address the island sensitivity of the *wh*-adjunct *nani-o*, Ochi follows Huang (1982a) in claiming that island (in)sensitivity of in-situ *wh*-phrases is determined by the argument-adjunct distinction, rather than the noun-adverb dichotomy. However, as discussed in the previous section, Huang’s analysis runs into problems such as the island insensitivity of manner *wh*-adjunct *ettehkey* in Korean.

4. Correlation between Island (In)sensitivity and Base Positions of *Wh*-in situ

In accounting for island (in)sensitivity of *wh*-adverbs in *wh*-in situ languages, Murphy (2017) pays attention to their structural height, not their grammatical (Huang, 1982ab) or categorial status (Tsai, 1999, 2008), and suggests that the island behaviors of in-situ *wh*-phrases naturally fall under the generalization stated in (19):

- (19) Island sensitivity of in situ *wh*-adverbs (Murphy 2017: (4)):
 In *wh*-in-situ languages, *wh*-adverbs adjoined to TP cannot occur inside islands.

Let us briefly explore how the generalization works in what follows.

With regard to syntactic positions of *zenmeyang* ‘how’ and *weishenme* ‘why’, Tsai (1999, 2008) observes that the latter expression must precede modals, as in (20a), whereas the former expression must occur below modals, as in (21b).

- (20) a. Akiu weishenme hui zou?
 Akiu why will leave
 ‘Why would Akiu leave?’
- b. *Akiu hui weishenme zou?
 Akiu will why leave
 ‘Why would Akiu leave?’ (Tsai, 2008, p. 93)
- (21) a. *tamen zenmeyang hui/keyi chuli zhe-jian shi?
 they how will/can handle this-CL matter
 ‘By what means will/can they handle this matter?’
- b. tamen hui/keyi zenmeyang chuli zhe-jian shi?
 they will/can how handle this-CL matter
 ‘By what means will/can they handle this matter?’
 (Tsai, 2008, p. 95)

Based on the distributional facts, alongside other diagnostics discussed in Tsai (1999, 2008), Murphy assumes that the reason *weishenme* is adjoined to TP, while instrumental *zenmeyang* is adjoined to vP. The generalization then can capture the asymmetry between the two *wh*-expressions: the reason *weishenme*, which merges at TP, is island-sensitive, while the instrumental *zenmeyang*, which merges at vP, is island-free.

In this section, we follow Murphy (2017) in claiming that island (in)sensitivity of in situ *wh*-phrases correlates with their base-generated positions, not their syntactic categories. However, our view is slightly different from Murphy’s by suggesting that a *wh*-phrase, base-generated in the CP domain, is island-sensitive, whereas a *wh*-phrase, base-generated below CP/TP, is island-free.

4.1 Syntactic Positions of the Two Variants of *Eccī*

As we have discussed, the *wh*-adverb *eccī* has two different readings, namely manner and reason. Its meanings are argued to be obtained by the root *e*, which is assumed to be historically developed from *es* in *esti*.

As we have seen, the two readings of *ecci* can be distinguished in terms of island effects: manner *ecci* is island-insensitive, while its causal variant is island-sensitive. This asymmetry, as discussed, would not be dealt with morpho-syntactically under the category-based UB analysis. Then, the question is what brings about the asymmetry in island effects? Here we suggest that it would be closely relevant to different syntactic positions of the two variants of *ecci*.

Shin & Tsai (to appear) note that when *etlehkey* is interpreted as a causal *wh*-adjunct, it should semantically take scope over a subject quantifier, while, when it is interpreted as a manner *wh*-adjunct, it needs to take narrow scope under it:

- (22) a. etlehkey motwutul kheyikhu-lul mantul-ess-ni?
 how everyone cake-ACC make-PST-QUE
 ‘What was the cause *x* such that everyone made the cake(s)
 due to *x*?’ (how > \forall)
 ‘*What was the manner *x* such that everyone made the cake(s)
 in *x*?’ (\forall > how)
- b. motwutul etlehkey kheyikhu-lul mantul-ess-ni?
 everyone how cake-ACC make-PST-QUE
 ‘*What was the cause *x* such that everyone made the cake(s)
 due to *x*?’ (how > \forall)
 ‘What was the manner *x* such that everyone made the cake(s)
 in *x*?’ (\forall > how) (Shin & Tsai to appear: (8))

Based on this scope interaction, Shin and Tsai argue that causal *etlehkey* is base-generated in the CP-layer, whereas manner *etlehkey* is positioned in the VP-layer.

Another scope pattern with negation supports the treatment of causal *etlehkey* as being positioned in the CP domain. Consider (23).

- (23) Mary-nun etlehkey/way tokil-ey ka-ci anh-key

- Mary-TOP how/why Germany-to go-CONN not-CONN
 toyess-ni?
 became-QUE
 'What is the cause x such that Mary didn't go to Germany for x ?
 (Reason >> Not)'
 '*What is not the cause x such that Mary went to Germany for x ?
 (Reason << Not)'

As illustrated above, just like *way*, the causal meaning contributed by the *ettehkey* always takes scope over the negation involved. This would be expected if we assume that causal *ettehkey* is base-generated in the CP domain, configurated above the negation (or NegP).

The base-generation of causal *ettehkey* in the CP region is further supported by its insensitivity to the negative island effect, a phenomenon in which negation blocks extraction of certain *wh*-phrases (Rizzi, 1990; Shlonsky & Soare, 2011; Kim, 2022, Shin & Tsai, to appear):

- (24) Mary-nun etteheky cha-lul kochi-ci anh-ass-ni?
 Mary-TOP how car-ACC fix-CONN not-PST-QUE
 'What is the cause x such that, due to x , Mary didn't fix the car?'
 '*What is manner x such that, in x , Mary didn't fix the car?'

In (24), only the causal reading is available, indicating that the causal *ettehkey* is immune to the negative island. Given that (-ci) *anh* is positioned immediately above the VP-layer (Shin & Tsai, to appear), the island insensitivity of causal *ettehkey* here is taken to support its base-generation in the CP domain, unlike its manner variant base-generated below a VP layer.

In Korean, it is well-known that *way* 'why', unlike other *wh*-words, does not exhibit the intervention effect. That is, it is able to follow a scope bearing element (SBE) like *amwuto* 'anyone' (see, among others, Beck & Kim, 1997; Ko, 2006):

- (25) a. amwuto way pap-ul mek-ci anh-ass-ni?
anyone why meal-ACC eat-CONN not-PST-QUE
‘Why did no one have the meal?’
- b. *amwuto mwues-ul mek-ci anh-ass-ni?
anyone what-ACC eat-CONN not-PST-QUE
‘What did no one eat?’

According to Ko’s (2006) view, the ability of *way* to follow an SBE falls out from the fact that it is externally merged in its scope position in the CP domain (i.e., Spec-CP): since it is initially licensed in its base position (before the SBE overtly scrambles over it), it does not need to move covertly across the SBE that blocks such covert movement and, therefore, is not subject to the intervention effect.

Note that causal *ettehkey*, as in (26), is also not subject to the intervention effect.

- (26) amwuto ettehkey moim-ey chamsekh-a-ci anh-key
anyone how meeting-LOC attend-CONN not-CONN
toy-ess-ni?
become-PST-QUE
‘Why did no one attend the meeting?’

Based on this fact, Kim (2022) argues that it is base-generated in the CP domain, just like *way*.

Note that *wh*-questions involving *ecci* show similar patterns as *etteheky* in terms of scope interaction with a subject quantifier and negation, the negative island effect, and the intervention effect. Consider the following examples:

- (27) a. ecci motwutul kheyik-ul mantul-ess-ni?
how everyone cake-ACC make-PST-QUE
‘What was the cause *x* such that everyone made the cake(s)

due to $x?$ (how > \forall) (${}^*\forall$ > how)

'*What was the manner x such that everyone made the cake(s) in $x?$ (\forall > how)

- b. motwutul ecci kheyik-ul mantul-ess-ni?
 everyone how cake-ACC make-PST-QUE
 'What was the cause x such that everyone made the cake(s) due to $x?$ (how > \forall) (\forall > how)
 'What was the manner x such that everyone made the cake(s) in $x?$ (\forall > how)

- (28) Mary-nun ecci tokil-ey ka-ci anh-key
 Mary-TOP how Germany-to go-CONN not-CONN
 toyess-ni?
 became-QUE

'What is the cause x such that Mary didn't go to Germany for x ?
 (Reason >> Not)'

'*What is not the cause x such that Mary went to Germany for x ?
 (Reason << Not)'

- (29) Mary-nun ecci cha-lul kochi-ci anh-ass-ni?
 Mary-TOP how car-ACC fix-CONN not-PST-QUE
 'What is the cause x such that, due to x , Mary didn't fix the car?'
 '*What is manner x such that, in x , Mary didn't fix the car?'

- (30) amwuto ecci moim-ey chamsekha-ci anh-key
 anyone how meeting-LOC attend-CONN not-CONN
 toy-ess-ni?
 become-PST-QUE

'Why did no one attend the meeting?'

As for the quantifier-scope interaction case, when the causal reading is available, it is assumed that the subject quantifier has been scrambled over the *wh*-adjunct *ecci*. Consequently, this scrambling allows for not only the surface reading but also the inverse reading where the quantifier scopes over the *wh*-adjunct *ecci*. In particular, the wide scope of the *ecci*

over the subject quantifier leads us to assume that the *wh*-adjunct originates in the CP domain. On the other hand, when the manner reading is available, the *wh*-adjunct should take narrow scope under the subject quantifier phrase. This implies that the manner *wh*-adjunct *ecci* is base-generated in the VP domain. (28) shows the obligatory wide scope of the *ecci* over the negation, which supports the base-generation of the causal *wh*-adjunct in the CP region. The cases in (29) and (30) illustrate that only causal *ecci* is not subject to the two effects, which further supports the current claim. Taken together, the above data allow us to conclude that causal *ecci*, which is island-sensitive, is base-generated in the CP-domain, while its manner variant, which is island-free, is base-generated below the CP-domain, specifically the VP-domain.

4.2 Syntactic Position of Nominal *Wh*-adjunct *Mwe-l*

In order to investigate the base-generation position of nominal *wh*-adjunct *mwe-l*, we use the same diagnostics as *etlehkey* and *ecci*. First, the nominal *wh*-adjunct, just like causal *etlehkey* and *ecci*, always takes wide scope over a given subject quantifier, as shown in (31), indicating that it originates in the CP-domain.

- (31) mwe-l tto motwutul kheyikh-ul mantul-ess-ri?
 what-ACC again everyone cake-ACC make-PST-QUE
 'What was the cause *x* such that everyone made the cake(s)
 again due to *x*?' (what > \forall / * \forall > what)

The data (32) below illustrates that the nominal *wh*-adjunct *mwe-l* should scope over the negation involved. This fact is accounted for by assuming that it is base-generated in the CP-domain; there is no trace or variable linked to *mwe-l* under the negation, and therefore the narrow scope reading under the negation is not available.

- (32) Mimi-nun mwe-l tto pap-ul mek-ci anh-ass-ni?
 Mimi-TOP what-ACC again meal-ACC eat-CONN not-PST-QUE
 'What is the cause x such that Mimi didn't eat the meal for x ?
 (Reason >> Not)'
 '*What is not the cause x such that Mary ate the meal for x ?
 (Reason << Not)'

The anti-intervention effect of nominal *wh*-adjunct *mwe-l* also supports its base-generation in the CP region. Observe the following example:

- (33) amwuto mwe-l tto moim-ey chamsekha-ci anh-ass-ni?
 anyone what-ACC again meeting-at attend-CONN not-PST-QUE
 'Why did no one attend the meeting again?'

The *mwe-l* is preceded by the SBE *amwuto*. This is predicted if we assume that, like causal *etlehkey* and *ecci*, causal *mwe-l* is generated in the CP-layer. Based on the data we have observed, we can confirm that causal *mwe-l*, which is island-sensitive, is base-generated in the CP-domain, unlike its argumental variant base-generated in the VP domain.

4.3 Island (In)sensitivity and Base Positions of Other In-situ *Wh*-phrases in Korean

The other typical in-situ *wh*-phrases that we have not discussed so far, such as *nwukwu* 'who' and so-called 'low' *wh*-adjuncts like *ençey* 'when' and *eti* 'where', are all island-insensitive. For instance, the examples in (34) illustrate their insensitivity to the complex NP island.

- (34) a. Mimi-nun [DP [CP nwu-ka yoliha-n] umsik-ul]
 Mimi-TOP who-NOM cook-MOD food-ACC
 mek-ess-ni?
 eat-PST-QUE

'Mimi ate the food that who cooked?'

- b. Mimi-nun [DP [CP Mary-ka encey yoliha-n] umsik-ul]
 Mimi-TOP Mary-NOM when cook-MOD food-ACC
 mek-ess-ni?
 eat-PST-QUE

'Mimi ate the food that Mary cooked when?'

- c. Mimi-nun [DP [CP Mary-ka etise yoliha-n] umsik-ul]
 Mimi-TOP Mary-NOM where cook-MOD food-ACC
 mek-ess-ni?
 eat-PST-QUE

'Mimi ate the food that Mary cooked where?'

All these island-insensitive *wh*-phrases presented here are known as being base-generated below CP/TP. This is consistent with the proposed assumption that an in-situ *wh*-phrase is island-sensitive iff it originates in the CP region.

The observations for the Korean data so far can be recapped in Table 1.

⟨TABLE 1⟩ Correlations between island (in)sensitivity and base positions of (non-)standard in-situ *wh*-phrases in Korean

wh-word	interpretation	syntactic category	island (in)sensitivity	base position
<i>ettehkey</i>	manner	AdvP	✓	below CP/TP
<i>ettehkey</i>	cause	AdvP	*	in the CP domain
<i>ecci</i>	manner	AdvP	✓	below CP/TP
<i>ecci</i>	cause	AdvP	*	in the CP domain
<i>mwet-l</i> / <i>mwues-ul</i>	individual/entity	NP	✓	below CP/TP
<i>mwet-l</i>	cause	AdvP	*	in the CP domain
<i>way</i>	cause/reason	AdvP	*	in the CP domain
<i>encey</i>	temporal	AdvP	✓	below CP/TP
<i>nwukwu</i>	individual/person	NP	✓	below CP/TP
<i>eti(se)</i>	location	AdvP	✓	below CP/TP

The table shows that in Korean the in-situ *wh*-phrase base-generated below CP/TP is island-insensitive, whereas the one base-generated in the CP domain is island-sensitive, regardless of whether the given *wh*-phrase is a *wh*-nominal (e.g., causal *mwe-l*) or contains a *wh*-nominal subpart (e.g., causal *ecci*).

5. Conclusion and Future Work

In this study, we have shown that the previous analyses of island (in)sensitivity of *wh*-in-situ are insufficient to capture the island behaviors of some (non-)standard in-situ *wh*-phrases in Korean. Instead, borrowing insights from Murphy (2017), we have suggested that the island (in)sensitivity of (non-)standard in-situ *wh*-phrases may correlate with their base positions, by demonstrating that an in-situ *wh*-phrase is island-sensitive iff it is base-generated in the CP domain.

However, there remain many important issues to be addressed to confirm the validity of the suggestion and to explain the resulting patterns from a theoretical perspective. Needless to say, further work is required to see whether the proposed correlation is applicable over a wide range of *wh*-in-situ languages. Although we leave the crucial issues unresolved here, we hope the proposed correlation between island (in)sensitivity and base positions has enabled us to better understand various asymmetries in island effects in *wh*-in-situ languages.

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