

Q-movement in Korean

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An, Youngjae. (2020). Q-movement in Korean. *The Linguistic Association of Korea Journal*, 28(1), 99–106. In this paper, I attempt to demonstrate that *wh*-question formation in Korean involves movement of a Q(uestion)-particle. Along the lines of Q-movement by Cable (2010) and Hagstrom (1998), I argue that the *wh*-question in Korean is derived by the movement of the Q-particle. This mechanism accounts not only for how the interpretation of the *wh*-word is achieved by the Q-particle but also for why the *wh*-word in Korean remains in situ. I argue further that the EPP on C is involved in successive cyclic Q-movement in Korean, which accounts for certain alleged island effects in Korean.

Key Words: *wh*-questions in Korean, Q-particle, island effects, successive cyclic movement

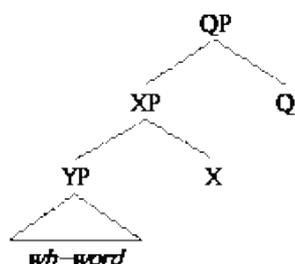
1. Introduction

It has been standardly assumed that Korean is a *wh*-in-situ language since the *wh*-word remains in situ. In order to be interpreted as *wh*-interrogative, the in-situ *wh*-word must be bound by a Q-particle directly merged in either embedded C or matrix C, and the scope of the *wh*-word is determined by unselective binding at LF (Chomsky, 1995; Heim, 1982; Hong, 2005).

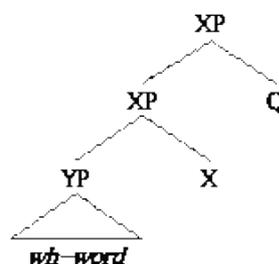
In this paper, however, I argue that *wh*-questions in Korean are formed by movement of a Q-particle to the clause-final position, along the lines of Q-movement by Cable (2010) and Hagstrom (1998). Cable (2010), in particular, proposes that *wh*-parameterisation is determined by the way the Q-particle merges with an XP which contains the *wh*-word. According to Cable, in *wh*-ex-situ languages such as English, the Q-particle takes the XP as its complement and projects a QP, as in (1a); consequently, it is the entire QP that is attracted to Spec of CP by the interrogative probing. In *wh*-in-situ languages such as Korean, on the other hand, the Q-particle is adjoined to the XP, as in (1b); as a result of this, the Q-particle alone undergoes movement to the clause-final position, leaving the *wh*-word in situ.

- (1) The behaviour of Q-particles in Cable (2010, pp. 146–147)

a. *Wh*-ex-situ languages



b. *Wh*-in-situ languages



Cable (2010) further assumes that languages differ as to whether Agree takes place between the Q-particle and the *wh*-word. He argue that the Q-particle in (1a) must Agree with the *wh*-word that it c-commands whereas in

(1b) the Q-particle does not need to Agree with the wh-word that it c-commands. However, I depart from Cable's proposal that wh-parameterisation is determined by the Agree relation between the Q-particle and the wh-word; rather, I point out that the wh-word in Korean must Agree with the Q-particle due to lack of its quantificational force (Kim, 2001).

In addition to this, I argue that an EPP on C is responsible for Q-movement, which in turn triggers successive cyclic Q-movement in Korean (see also Alexiadou & Anagnostopoulou, 1998; Boeckx, 2008; Miyagawa, 2001). This proposal accounts not only for the absence of movement of the wh-word but also for the alleged island effects in Korean.

The remainder of this paper is structured as follows. Section 2 reviews the relationship between Q-particles and wh-questions in Korean, and then propose a Q-based analysis of wh-questions in Korean. Section 3 is devoted to Q-movement in Korean, followed by successive cyclic nature of Q-movement. Section 4 discusses the alleged wh-island effect in Korean. And finally, Section 5 concludes the paper.

2. Q-particles and wh-questions in Korean

Wh-words in Korean are assumed to be unspecified for their quantificational force as they are ambiguous between an interrogative reading and an indefinite reading; the indefinite reading is divided further into an existential reading and a universal reading (Kim, 2001). And the interpretation of wh-words in Korean is determined by the particles they are associated with (Kim, 2006). Consider the following sentences:

- (2) a. Yanf-ka nwukwu-lul chohahayss-ni?
 Yanf-NOM who-ACC liked-Q
 'Who did Yanf like?'
 b. Yanf-ka nwukwu-(i)nka-lul chohahayss-ta.
 Yanf- NOM who-INDEF(∃)-ACC liked-DEC
 'Yanf liked someone.'
 c. Yanf-ka nwukwu-(i)na-lul chohahayss-ta.
 Yanf- NOM who-INDEF(∀)-ACC liked-DEC
 'Yanf liked everyone.'

In (2a), *nwukwu* 'who' is fixed as an interrogative reading due to the Q-particle *ni*. In (2b), however, *nwukwu* 'who' attains an existential reading due to the I(definiteness)-particle *inka*; and in (2c) *nwukwu* 'who' acquires a universal reading by virtue of the I-particle *ina*. For this reason, Q-particles and I-particles in Korean function as an operator: Q-particles have interrogative force and I-particles have existential or universal force.

A wh-word in Korean in turn serves as a variable whose interpretation is determined by the particle that c-commands it. The validity for these observations is achieved by (3).

- (3) a. Yanf-ka nwukwu-lul chohahayss-ni?
 Ynaf -NOM who-ACC liked-Q
 'Who did Yanf like?'
 b. Yanf-ka nwukwu-(i)nka-lul chohahayss-ni?
 Yanf-NOM who-INDEF(∃)-ACC liked-Q
 'Did Yanf like someone?'
 c. Yanf-ka nwukwu-(i)na-lul chohahayss-ni?
 Yanf-NOM who-INDEF(∀)-ACC liked-Q
 'Did Yanf like everyone?'

In (3a), *nwukwu* ‘who’ is c-commanded by the Q-particle *ni* since no operator intervene between them; thus, the quantificational force of *nwukwu* ‘who’ in (3a) is specified as wh-interrogative. In (3b), however, the Q-particle *ni* cannot c-command *nwukwu* ‘who’ because the I-particle *inka* intervene between them; consequently, the quantificational force of *nwukwu* ‘who’ in (3b) is specified as wh-indefinite since it is in the scope of the existential operator *inka*. In the same vein, *nwukwu* ‘who’ in (3c) is no longer c-commanded by the Q-particle *ni* due to the intervener, the I-particle *ina*; hence, *nwukwu* ‘who’ is interpreted as wh-indefinite. From these observations, I assume that the Q-particle in (3a) is an instance of Q_{WH}-particles whereas the Q-particles in (3b) and (3c) is an instance of Q_{YES/NO}-particles, which is directly merged into the clause-final position. As Q_{YES/NO}-particles do not create an operator-variable chain for interpretation, their quantificational force is limited to a polarity reading.

One piece of clear evidence giving backing to this assumption can be found Kyongsang dialect of Korean where Q-particles show a morphological distinction between wh-questions and yes/no questions. In Keyngsang dialect, a wh-question is marked with a Q-particle *no*, as in (4a) whereas a yes/no question are marked with a Q-particle *na*, as in (4b).

- (4) a. Swuni-ka nwu-lul cohaha-no?
 Swuni-NOM who-ACC like-Q_{WH}
 ‘Who does Swuni like?’
 *‘Does Swuni like someone?’
- b. Ni-ka nwu-lul cohaha-na?
 you-NOM who-ACC like-Q_{YES/NO}
 ‘Do you like someone?’
 *‘Who do you like?’

(Choe, 1994, pp. 278–279)

From the data in (4), I assume that Korean has two different types of Q-particles: Q_{WH}-particles for wh-questions and Q_{YES/NO}-particles for yes/no questions. In addition, I further assume that Q_{WH}-particles are attached to wh-words. Consider the following sentences, where Q_{WH}-particles are allowed to appear between wh-interrogatives and Case-markers (See also Cable, 2010).

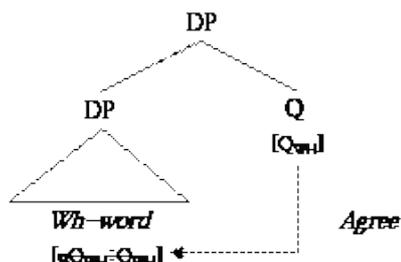
- (5) a. Na-nun kunye-ka nwukwu-inka/inci-ka kwungkumha-ta.
 I-TOP she-NOM who-Q_{WH}-NOM wonder-DEC
 ‘I wonder who she is.’
- b. Na-nun kunye-uy chip-i eti-inka/inci-ka kwungkumha-ta.
 I-TOP she-GEN house-NOM where-Q_{WH}-NOM wonder-DEC
 ‘I wonder where her house is.’
- c. Na-nun kunye-uy sayngil-i ence-inka/inci-ka kwungkumha-ta.
 I-TOP she-GEN birthday-NOM when-Q_{WH}-NOM wonder-DEC
 ‘I wonder when her birthday is.’

In (5), the Q_{WH}-particle such as *inka* and *inci* appears between the nominative Case-marker *ka* and the wh-word (i.e. *nwukwu* ‘who’ in (5a), *eti* ‘where’ in (5b), and *ence* ‘when’ in (5c)), and all the sentences are interpreted as an embedded wh-question. This implicates that the Q_{WH}-particle in Korean is adjoined to the wh-word during the derivation of the wh-question since the Q_{WH}-particle can intervene between the wh-word and the Case-marker.

The data presented so far suggest that the semantics of wh-words in Korean remains deficit in the lexicon, and so a bare wh-element as a variable must be attached to a specific quantificational operator (i.e. a Q_{WH}-particle) to

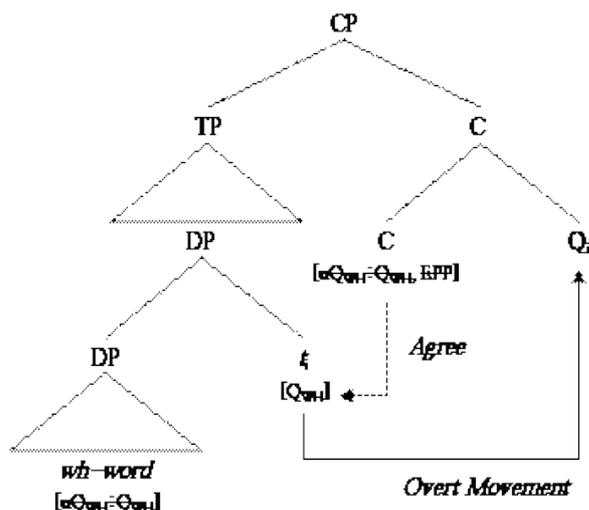
acquire its interrogative force proper. I thus assume that a Q_{WH} -particle bears an $[Q_{WH}]$ due to its unambiguous nature whereas a wh -word, which is parasitic on the Q_{WH} -particle, bears an $[uQ_{WH}]$. If the derivation is to be a wh -question, an Agree relation must hold between the wh -word and Q_{WH} -particle under Chomsky's (2000, 2001) probe-goal system. This is illustrated in (6).

(6) The structure of Q-adjunction in Korean



In (6), the Q_{WH} -particle with the $[Q_{WH}]$ is adjoined to the wh -word with the $[uQ_{WH}]$ in the course of derivation, establishing an Agree relation between them. The wh -word then attains the wh -interrogative force. In addition to this, when the interrogative C is selected for a wh -question, it bears an $[uQ_{WH}]$ and an EPP. I assume that this EPP is a formal syntactic property that certain functional heads have in common across languages (Boeckx, 2008). I further assume that the EPP has an effect on the PF outcome, and as such it is satisfied by moving an XP to Spec of the head or by moving X to the head (Alexiadou & Anagnostopoulou, 1998; Miyagawa, 2001). Consequently, the interrogative C with the $[uQ_{WH}]$ probes a goal with a matching interpretable instance of the Q-feature, and so an Agree relation also holds between the interrogative C and the Q_{WH} -particle with the $[Q_{WH}]$. Then the EPP on C triggers movement of the Q-particle to the clause-final position. The derivation of a simplex wh -question in Korean is illustrated in (7).

(7) The structure of simplex wh -question in Korean

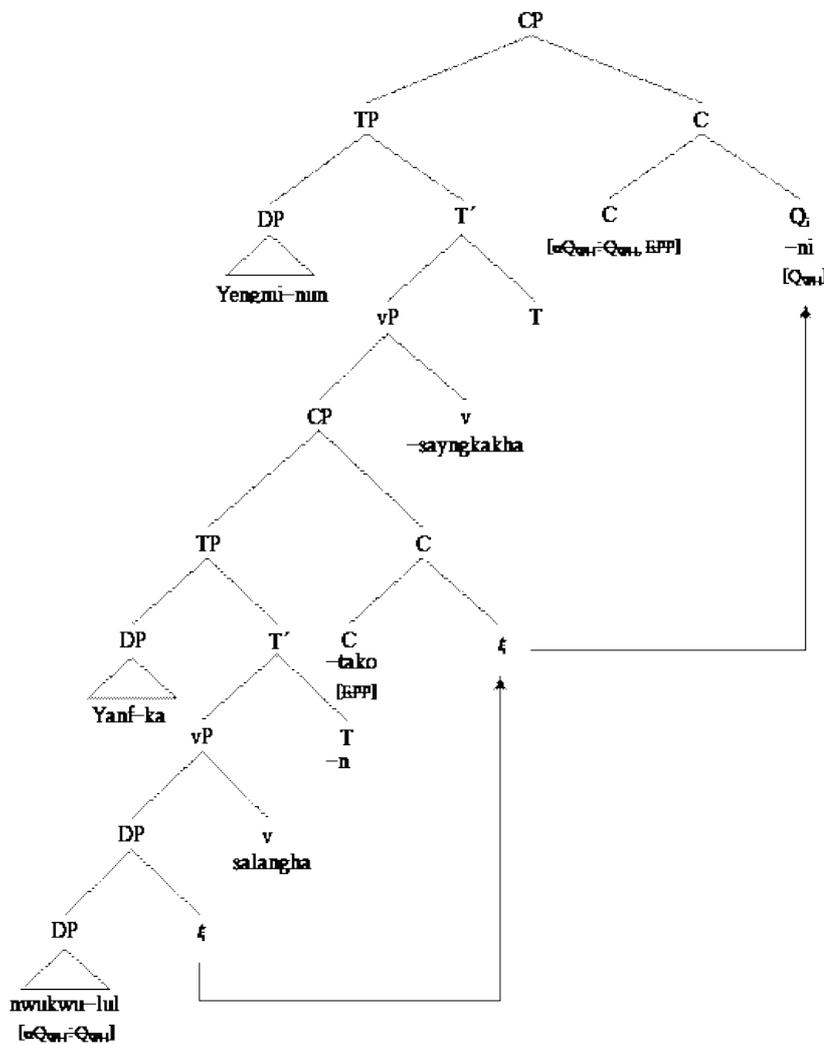


The derivation (7) straightforwardly captures the representation of wh -questions in Korean. Since the Q_{WH} -particle is adjoined to its sister, it can freely undergo movement from its base position to the CP, leaving the wh -word in situ. In what follows, I explore successive cyclic Q-movement in Korean and discuss its consequence on island effects.

3. Successive cyclic Q-movement and island effects in Korean

This section examines how the Q_{WH} -particle moves successive-cyclically. Consider the following complex wh-question (8) and its derivation (9).

- (8) Yengmi-nun Yanf-ka nwukwu-lul salanghan-ta-ko sayngkakha-ni?
 Yengmi-TOP Yanf-NOM who-ACC love-DEC-COMP think-QWH
 'Who does Yengmi think Yanf loves?'
- (9) Successive cyclic Q-movement in Korean¹⁾



In (9), the derivation begins with merging the Q_{WH} -particle *ni* and *nwukwu* 'who'. The $[uQ_{WH}]$ on *nwukwu* 'who' is valued by the $[Q_{WH}]$ on the Q_{WH} -particle *ni* under the probe-goal system. Following this, the EPP on the embedded C attracts the Q_{WH} -particle *ni* into the final position of the embedded clause. The derivation continues until the matrix C is introduced. The $[uQ_{WH}]$ on the matrix C probes and Agrees with the $[Q_{WH}]$ on the

¹⁾ An anonymous reviewer pointed out that the movement of the Q_{WH} -particle in (9) violates the Head Movement Constraint (HMC; Travis, 1984), moving over the intervening heads (i.e. V, T and C). My conclusion regarding the HMC is that it does not constrain the movement of the Q_{WH} -particle. That is to say, if a feature is being targeted and a head H carries the feature F, movement of H is only banned if there is an intervening H which also carries the relevant feature F (See also Hagstrom, 1997; Rizzi, 2013; Roberts, 2010). That being so, the HMC is irrelevant in (9) since the intervening heads (i.e. V, T and C) do not carry the relevant feature $[Q_{WH}]$.

Q_{WH} -particle *ni*. The EPP on the matrix C in turn attracts the Q_{WH} -particle *ni* to the clause-final position, satisfying the EPP on the matrix C. The derivation eventually converges at the interface.

The successive cyclic Q-movement observed here is subject to the locality conditions. In fact, it has been often argued in the literature that wh-questions in Korean are immune to island constraints such as the complex noun phrase island and the adjunct island constraint (Hong, 2005). However, they are, in particular, allergic to the wh-island constraint (Choe, 1994; Chung, 1996; Lee, 2006; Yoon, 1999).

Consider the wh-island effect in Korean below. It has been often argued that the sentence (10) cannot be interpreted as a matrix wh-question; rather, it obtains an embedded wh-question reading due to the wh-island effect at LF.

- (10) Yanf-nun [Yengmi-ka ecey mwues-ul sass-nunci] kiekha-ni?
 Yanf-TOP Yengmi-NOM yesterday what-ACC bought-Q remember-Q
 *'What does Yanf remember whether Yengmi bought yesterday?'
 'Does Yanf remember what Yengmi bought yesterday?'

The failure of the matrix wh-question reading in (10) can be attributed to a local constraint on Q-movement. In order to rule out the ill-formedness of (10), I adopt Rizzi's (2013) Featural Relativized Minimality.

- (11) Featural Relativized Minimality (FRM; Rizzi, 2013, p. 179)
 In the configuration [... X ... Z ... Y ...], a local relation (e.g. movement) cannot hold between X and Y if Z intervenes and Z fully matches the specification of X in the relevant morphosyntactic features.

To illustrate this, consider the wh-island (10) in terms of Q-movement, repeated here as (12). The relevant morphosyntactic features that are responsible for the derivation are represented in accordance with the FRM.

- (12) *Yanf-nun [Yengmi-ka ecey mwues- ζ -ul sass-nunci] kiekha-ni?
[+ Q_{WH}] [+ Q_{WH}] [+ Q_{WH}]
X Z Y

In (12), the potential intervener Z (i.e. the Q_{WH} -particle *nunci*) matches the relevant feature specification of X (i.e. the Q_{WH} -particle *ni*) since both the Z and X are specified as [+ Q_{WH}]. Consequently, the Z disrupts the local relation between the X and Y (i.e. the copy of the Q_{WH} -particle *ni*). This explains the unavailability of the matrix wh-question reading of (10). Q-movement in Korean is allergic to the alleged wh-island. To be more precise, I call it Q-island.

The following example further supports the assumption of Q-movement in Korean. Lee (2006) suggests that if the matrix subject *Yanf* in (12) is replaced with a wh-word, the wh-island effect disappears, as shown below:

- (13) Nwu(kwu)- ζ -ka [Yengmi-ka ecey mwues- ζ -ul sass-nunci] kiekha-ni?
 who-NOM Yengmi-NOM yesterday what-ACC bought- Q_{WH} remember- Q_{WH}
 'Who remembers whether Yengmi bought what?'

The representation (13) illustrates Q_{WH} -particle's journey end in Korean: The wh-word accommodates safe take-off of the Q_{WH} -particle, and the interrogative C ensures perfect landing of the Q_{WH} -particle. In other words, the Q_{WH} -particle *nunci* undergoes movement from *mwues* 'what' to the final position of the embedded clause. The Q_{WH} -particle *ni* later moves from *nwukwu* 'who' to the final position of the matrix clause. Then the sentence (13) obtains a multiple wh-question reading, which lends further support to Q-movement in Korean.

Alternatively, I assume that there is no such derivation that induces the wh-island effect in Korean. Given the

assumption that Korean makes use of two different types of Q-particles in the lexicon (i.e. Q_{WH} -particles and $Q_{YES/NO}$ -particles), the Q-particle *nunci* and *ni* differ in their inherent properties. In (12), for example, the Q-particle *nunci* is an instances of Q_{WH} -particles and the Q-particle *ni* is an instance of $Q_{YES/NO}$ -particles; consequently, the embedded wh-question reading is only allowed.

Consider again the following wh-questions in Keyngsang dialect of Korean. Keyngsang dialect distinguishes the use of Q-particles: *no* for a wh-question and *na* for a yes/no question as in (14).

- (14) a. *Yanf-nun [Yengmi-ka ecey mwues- \bar{t} -ul sass-nunci] kiekha-no?
 Yanf-TOP Yengmi-NOM yesterday what-ACC bought- Q_{WH} remember- Q_{WH}
 *'What does Yanf remember whether Yengmi bought yesterday?'
 b. Yanf-nun [Yengmi-ka ecey mwues-ul sass-nunci] kiekha-na?
 Yanf-TOP Yengmi-NOM yesterday what-ACC bouthg- Q_{WH} remember- $Q_{YES/NO}$
 'Does Yanf remember what Yengmi bought yesterday?'

In (14a), the use of the Q_{WH} -particle *no* is banned due to the intervention effect on the movement chain between *no* and its copy. In (14b), on the other hand, the use of the $Q_{YES/NO}$ -particle *na* is allowed since no movement of $Q_{YES/NO}$ -particle is observed. Thus, it is reasonable to assume that $Q_{YES/NO}$ -particle *na* is directly merged in the clause-final position. It is this line of reasoning that I would like to pursue: that is, the Q-particle *ni*, which is used in the alleged wh-island sentence (10), should be reanalysed as an instance of $Q_{YES/NO}$ -particles. The alleged wh-island effect in Korean may result from a misinterpretation of the Q-particle on the ground that the distinction between Q_{WH} -particles and $Q_{YES/NO}$ -particles has been vanished in standard Korean. This assumption is supported by experimental evidence; Yoon (2012) reports that the wh-island effect in Korean is subject to speaker variation.

4. Concluding remarks

This paper has argued, based on Cable (2010), that Korean can be analysed as an instance of Q-adjunction languages. However, unlike Cable's (2010) view that a Q_{WH} -particle does not need to Agree with a wh-word in Korean, it has been demonstrated that the wh-word must Agree with the Q_{WH} -particle to attain its wh-interrogative force if the derivation were to be a wh-question. In addition, an EPP has been employed as a mechanism of Q_{WH} -movement in Korean, which is satisfied by moving the Q_{WH} -particle to the interrogative C. As a result of this, Q-movement in Korean must obey syntactic locality constraints on movement due to its successive cyclic nature, which in turn can account for the wh-island (or Q-island) effect in Korean.

References

- Alexiadou, A., & Anagnostopoulou, E. (1998). Parametrizing Agr: Word order, V-movement and EPP-checking. *Natural Language and Linguistic Theory*, 16, 491-539.
 Boeckx, C. (2008). *Understanding minimalist syntax: Lessons from locality in long-distance dependencies*. Malden, MA: Blackwell.
 Cable, S. (2010). *The grammar of Q: Q-particles, wh-movement, and pied-piping*. Oxford: Oxford University Press.
 Cheng, L., & Rooryck, J. (2000). Licensing wh-in situ. *Syntax*, 3, 1-19.
 Choe, H.-S. (1994). Syntactic wh-movement in Korean and licensing. In Y. Kim-Renaud (Ed.), *Theoretical issues in Korean linguistics* (pp. 275-302). Stanford, CA: Center for the Study of

Language and Information.

- Chomsky, N. (1995). *The minimalist program*. Cambridge, MA: MIT Press.
- Chomsky, N. (2000). Minimalist inquiries. In R. Martin, D. Michaels, & J. Uriagereka (Eds.), *Step by step: Essays on minimalist syntax in honor of Howard Lasnik* (pp. 89–155). Cambridge, MA: MIT Press.
- Chomsky, N. (2001). Derivation by phase. In M. J. Kenstowicz (Ed.), *Ken Hale: A life in language* (pp. 1–52). Cambridge, MA: MIT Press.
- Chung, D.-H. (1996). *On the representation of Q and Q-dependencies*. Unpublished doctoral dissertation, University of Southern California.
- Hagstrom, P. (1998). *Decomposing questions*. Unpublished doctoral dissertation, Massachusetts Institute of Technology.
- Heim, I. (1982). *The semantics of definite and indefinite noun phrases*. Unpublished doctoral dissertation, University of Massachusetts.
- Hong, S.-H. (2005). *Aspects of the syntax of wh-questions in English and Korean*. Unpublished doctoral dissertation, University of Essex.
- Kim, A.-R. (2001). Korean wh-phrases void of operator. *Japanese/Korean Linguistics*, 9, 311–324.
- Kim, Y.-H. (2006). Q-particles vs. I-particles: Licensors of the Question and the Indefinite wh-words. *Studies in Generative Grammar*, 16(3), 461–490.
- Lee, J.-C. (2006). Wh-islands and additional wh-effects. *Studies in Modern Grammar*, 43, 1–31.
- Miyagawa, S. (2001). The EPP, scrambling, and wh-in-situ. In Kenstowicz, M. (Ed.), *Ken Hale: A life in language* (pp. 293–338). Cambridge, MA: MIT Press.
- Rizzi, L. (2013). Locality. *Lingua*, 130, 169–186.
- Roberts, I. (2010). *Agreement and head movement: Clitics, incorporation, and defective goals*. Cambridge, MA: MIT Press.
- Yoon, J.-M. (1999). Decomposing wh-question formation: Wh-in-situ and island constraint in Korean. *Studies in Generative Grammar*, 9(2), 153–198.
- Yoon, J.-M. (2012). Wh-island effects in Korean wh-in-situ questions: Degradedness or misinterpretation? *Korean Journal of Linguistics*, 37(2), 357–382.

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