# On the Acquisition and Use of the English Comp System by Korean Learners of English: A Case Study Focused on Interrogation*

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**Ahn, S.-H. Gyemyong (2020), "On the Acquisition and Use of the English Comp System by Korean Learners of English: A Case Study Focused on Interrogation,"** *Language and Information Society* 40. Observing an English/ Korean difference in the fusionality parameter of their complementizers (Comp), this paper examines whether the acquisition of the English Comp system by Korean learners shows any evidence for resetting the fusionality parameter, and if positive what stages it occurs at in models of syntactic development of *wh*-questions and in what ways the learners use the inter-English Comps. It then shows that data produced naturally by college-level learners support at least some of them undergoing such parameter resetting, which is understood to

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constitute the empirical basis for the Comp Fusion Hypothesis. Further, it also shows that the Comp fusion data are compatible with multiple stages in the syntactic development of *wh*-questions, and that their use is quite restricted to a limited set of matrix verbs like *wonder* and *question*. These results are interpreted as implying that the process of morpho-syntactic acquisition like Comp fusion occurs in parallel with the syntactic development and also with lexical acquisition. The results further call for examining in what other areas the fusionality parameter resetting occurs in acquisition of EFL.

# 1. Introduction

In terms of morphological typology, modern English is described to belong to a mixed type of the synthetic/analytic language (Denham and Lobeck 2013). As its synthetic properties, this language uses a variety of morphological strategies like inflectional affixation, vowel mutation, and suppletion: *cats, freezing; run/ran; go/went, good/better*, and so on. When synthetic languages are grouped into agglutinative and fusional languages, further, it belongs to the second group of fusional languages, where multiple grammatical properties are *fused* into an inflection and so a stem typically combines with a unitary inflection. For example, English fuses the tense and agreement properties into a single verbal suffix-*s* as in (1), which indicates the grammatical properties of 'the 3rd person, singular, the present tense'.

    (1) John walk<u>s</u>.

Korean is similar to English in that it belongs to the morphological type of synthetic language, but this morphological similarity breaks down in the sub-typology: Unlike English, Korean belongs to the agglutinative language group. In this language different grammatical properties are realized as different grammatical morphemes. Since it doesn't have the person-number agreement as in English, it is impossible to make a direct comparison with the tense/agreement suffix in (1). But the Korean language has a type of honorific agreement.

> (2) John  seonsaying-i    keru-si-n-ta.[1)]
>     John   teacher-Nom   walk-Hon-Pres-Dec
>     'Mr. John walks.'

Example (2) illustrates that the honorificity and tense properties are realized in different suffixes *-si-* and *-n-*, confirming its agglutinative nature.

Similar difference is also observed with the Comp system. Complementizers in English are theorized as implementing two functions: complementation and clause-typing (Cheng 1991); in contrast, their Korean counterparts realize the two functions separately.

> (3) a. I think that John walks every evening.
>
>     b. I asked if John walks every evening.
>
> (4) a. na-nun  John-i     mayil cenyek  ket-nun-ta-go
>         I-Top   John-Nom  every evening walk-Pres-Dec-Comp

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1) For transliteration of Korean examples, I generally follow the Yale system of romanization.

sayngkakhanta.

think

b. na‑nun John‑i    mayil cenyek   ket‑nu‑nya‑ko

I‑Top John‑Nom   every evening walk‑Pres‑Int‑Comp muwretta.

asked

The English complementizers in (3), *that* and *if*, introduce an indirect declarative and an indirect interrogative clause, respectively. In contrast, the examples in (4) demonstrate that  Korean realizes the clause‑typing function in the suffixes ‑*ta* ('declarative') and ‑*nya* ('interrogative'), and the complementation function in the suffixal complementizer ‑*ko*.

Let us say that this typological difference can be formalized as a parametric difference as in (5):

(5) English: [+fusional]; Korean: [−fusional]

Given this parametric difference, we can immediately predict that Korean learners of English will have to go through a process of resetting the morphological parameter (White 2003) from [−fusional] to [+fusional].[2] This hypothesis will crucially involve the process of fusing the complementation and clause‑typing functions into a unitary Comp head. Let us call this the Comp Fusion Hypothesis (or CFH).

The perspective involving CFH leads us to check whether Comp fusion

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2) This prediction is based on the idea of second language (L2) development that L2 acquisition involves a successive process of formulating grammatical systems of *inter‑languages* in which the first version will be quite similar to the grammar of the learner's first language (L1) and the last version will approximate that of the target language (e.g., Selinker 1972).

occurs in actuality and in what ways it elaborates our understanding of the process of Korean learners acquiring the English Comp system. In this paper, I will explore up-to-date models of Comp system acquisition, present relevant data that have been collected in 2019 from English texts composed by college students, and then discuss what implications they make about Comp acquisition models and how inter-English Comps are used.

## 2. Studies on Korean EFL Learners' Acquisition of *Wh*-Interrogatives

Hahn (1999, 2000) reports results from a longitudinal study of nine young Korean learners of English between the ages of 5;2 and 12;6. She herself taught English to those participants for one and half years collecting data to analyze. This study is nicely supplemented by Shin's (2006) cross sectional study. She recruited four participants each from primary, middle-school and high-school levels (n=12). In these cross-sectional experimental settings, the participants produced English utterances interacting with a native speaker.

According to these studies, both of which draw on the so-called Minimal Tree approach (e.g., Vainikka and Young-Scholten 1998), Korean EFL learners also seem to undergo a few stages of syntactic development: the Pre-VP Stage (6), the VP Stage (7), the IP Stage (8), and the CP Stage.

(6) (S-(*be*))-X?, where X is a lexical category.
    a. She is piano? ('Is she playing the piano?') (Hahn 2000:95)

b. Apple? ('Does he like apples?') (Hahn 2000:95)

(7) (S *be*) VO?

a. She is like egg? (Hahn 1999:615)

b. He's walk to school? ('Does he walk to school?') (Hahn 2000:96)

(8) Not quite distinctive.

a. She likes pizza? ('Does she like pizza?') (Shin 2006:125)

(9) V-SX? *Be*-S-(*be*)-VX? Aux-S(V)X? WH-AUX-SVX?

a. Like you English? (Shin 2006:130)

b. Is she is like English? (Shin 2006:130)

b'. Is he hold dish? ('Is he holding a dish?') (Hahn 2000:98)

c. Does she like English? Is she a student? (Shin 2006:130)

d. Where does he go?   (Hahn 2000:98)


If we differentiate their contributions a little bit, on the one hand, Hahn (1999) suggests that the Pre-VP Stage is characterized by a topic-comment structure. Shin, on the other, contributes the diverse types of yes-no questions in (9a-c): (9a) must be a case of overgeneralization of Subject-Auxiliary Inversion (SAI), which in fact characterized Middle English; in (9b) the particle *is* seems to be inserted as a question operator, to be eventually replaced by an auxiliary carried by SAI.

Similarly drawing on Minimal Tree approaches (Cazden, Cancino, Rosansky and Schumann 1975, Pienemann and Johnson 1987, Vainikka and Young-Scholten 1998, among others), Kim (2014) revises his (2006) ideas to propose a Question-Sequence (Q-Sequence) model of the developmental stages of interrogatives in L2 English. According to him, this Q-Sequence is determined by the Force Realization Hierarchy of syntactic systems whose values are determined by the syntactic operations that are needed to generate them due to the Economy Principle (Chomsky 1991),

which is understood as meaning "the fewer syntactic operations a syntactic process involves, the more economical it will be" (Kim 2014:555); hence, the Force Realization Hierarchy assigns declarative sentences on the economical side, wh‑interrogatives on the expensive (or less economical) side, the two of which are mediated by topical sentences with intermediate levels of costs on a scale of structural expenses (Kim 2014:556).

To cover complex sentences with embedded questions, Kim (2006, 2014) extends the Minimal Tree approach to hypothesize that the syntactic structure of a sentence develops through a number of stages: from the V‑Stage, through the VP‑, (AuxP‑), TP‑, AgrP‑, FocP‑Stage, to the single and then the multiple CP‑Stage.[3] He then hypothesizes further that four types of questions occur successively in different stages: (i) Declarative questions occur in the V‑Stage (relying on the lexical‑insertion mechanism) (10);[4] topical questions, in the VP‑Stage (on theta‑assignment mechanism) (11); focus questions, in the (AuxP)‑TP‑AgrP‑FocP‑Stage (on the aux‑/tense‑/agreement‑/ force‑realizing mechanisms) (12);[5] and finally indirect questions, in the CP‑Stage (on the force‑matching mechanism) (13).[6] These stages can be illustrated with the question examples in (10)‑(13):

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3) This means that a theorization following the Full CP Approach may also be conceivable (e.g., Haznedar 2003), as Drs. KIM Tae Sik and PARK Jong Un (2020, Jan. 29, personal communication) preferably imagined.

4) Hahn (1999) reports many instances of the S‑*be*‑X sequence, which leads her to propose that the topic‑comment structure is easily transferred to the earliest grammar of Korean EFL learners and that the *be* tokens are topic markers.

5) The aux‑/tense‑/agreement‑realizing mechanisms must involve inserting and projecting relevant syntactic heads, and the force‑realizing mechanism will involve inserting and projecting the Focus head and relevant syntactic operations involve A/A'‑movement and H‑to‑H movement.

6) The force‑matching mechanism must involve embedding a clause into a larger one.

Kim's (1a–b), (2a–b), (5b,7a), and (8b, 9b, 10a, 11a), res– pectively.

(10) *The Declarative Question Stage*

    a. You meet her yesterday?

    b. Where go?

(11) *The Topical Question Stage*

    a. Do you met her yesterday?

    b. Whom Mary met yesterday?

(12) *The Focal Question Stage*

    a. Did you meet Mary yesterday?        [*partial–focal*]

    b. What are you doing now?          [*foca*l]

(13) *The Indirect Question Stage*

    a. I wonder who likes John in the class.        [*topical*]

    b. Do you know whom does John like in the class? [*focal*][7]

    c. Do you know whom John likes in the class?    [*disfocal*]

    d. Whom do you think John likes in the class?    [*refocal*][8]

According to him, syntactic movements occur in Focal Question and Indirect Question Stages only; before them, consecutively, either no movement or pragmatic ones only![9] Of the types in (13), only the Indirect Refocal Question involves a long-distance wh-movement, whose

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7) Kim calls this an "*interim indirect question*", which is widely witnessed in L2 acquisition, and whose FocP is eventually to be canceled (Kim 2014:566).

8) Kim imagines an indirect disforcal version for this: "Do you think whom John likes in the class?" In its description, however, he uses "might make ungrammatical structures like" that (Kim 2014:567) to indicate its rarity or lack in actual observational data. Kim (2019), however, observed that this construction, his silent scope marking type, is produced quite abundantly especially with his participants of lower English proficiency.

9) It is not clear what nature pragmatic movements have, but Kim does not elaborate on them.

acquisition is recently elaborated by Kim (2019).

Kim (2019) recruits as participants 107 adult Korean EFL learners in Korea aged 18-40. He divided them into three groups: High Group (HG, N=38), Intermediate Group (IG, N=34), and Low Group (LG, N=35) by means of TOEIC scores. In a written elicitation task, he provides 12 contextual descriptions in Korean, English lexical items to use (e.g., *think, Brian, meet, where*), and tasks to write long-distance *wh*-questions as target sentences like "Where do you think Brian met Jane yesterday?" (Kim 2019:150). He then classified the 1284 elicited questions into (1) long-distance (LD) *wh*-movement (29.4%), (2) *wh*-copying (0.2%),[10] (3) *wh*-scope marking (29.7%), (4) silent scope marking (15.7%), (5) scope marking *wh*-in-situ (1.7%), (6) *wh-about-wh* (8.4%), and (7) L1 clause order (7.4%) types, excluding others (7.5%). Since Type (1) is illustrated by (13d), I will reproduce examples of the remaining six types here (=his (11a-b)-(12a-b), (14a-b)-(17a-b)).

    (14) *Wh*-scope marking Type

        a. What do you think where Tom put the book?

        b. What do you think where is Elisa?

    (15) Silent scope marking Type

        a. Do you think where Mary have dinner yesterday?

        b. Do you think who Jessica sends to buy?

    (16) *Wh*-scope marking with *wh*-in-situ Type

        a. What do you think Jane is talking to whom?

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10) Kim does not discuss the *wh*-copying type seriously. He had only the following two tokens:

  (i) a. Who do you think who was sent by Jessica for buying milk?

    b. Who do you think who Mary is calling?

b. What do you think Sofia ask who bring the apple?

(17) *Wh‑about‑wh* Type

a. What do you think about where Brain met a person?

b. How do you think about where Tom is put book?

(18) L1 clause order Type

a. Who does James kiss do you think?

b. Who Ben chose as a partner do you think?

Kim (2019) analyzes all these alternative types as involving one or more short distance (SD) wh‑movements so that they have a lower degree of *derivational complexity*. The *wh*‑scope marking type (14) and the *wh‑about‑wh* type (17) involve two SD *wh*‑movements (optionally with SAI); the other scope marking types (15)‑(16) and the L1 clause order type (18), one SD *wh*‑movement.

In his data, the LD type is produced more as proficiency increases: It constitutes HG production's 62.3%, IG's 13.2%, LG's 9.5%. In contrast, most alternative types show opposite trends: The silent scope marking type (HG 4.4%, IG 17.2%, LG 26.4%), the scope‑marking with *wh*‑in‑situ type (HG 0.2%, IG 2.0%, LG 3.1%), the L1 clause order type (HG 2.2%, IG 9.1%, LG 11.4%); the *wh*‑scope marking type (HG 21.9%, IG 34.1%, LG 34.1%). Only the *wh‑about‑wh* type, of grammatical questions, shows an eccentric behavior (HG 4.4%, IG 14.2%, LG 7.1%).

Based on the two considerations, Kim (2019) proposes the stages in (19) for Korean EFL learners' acquisition of the bi‑clausal wh‑questions.

(19) Silent scope marking type ‑> *wh*‑scope marking type ‑> LD *wh*‑movement type

The discussion thus far shows that Kim's (2014) elaborate model called

the Q-Sequence describes and explains the major types of interrogative clauses that arise in L2 acquisition, and that his earlier (Declarative and Topical Question) types and stages should be elaborated to accommodate Hahn's (1999, 2000) and Shin's (2006) results and his Indirect Question type and stage should accommodate Kim's (2019) data and proposal. With these done, we will get a better picture of Korean EFL learners' acquisition of *wh*-questions. It is, however, clear that no previous research has paid attention to the morphological parameter resetting from a [−fusional] language to a [+fusional] language. This state of affairs directs us to further examine the L2 English produced by Korean learners focusing on that dimension.

## 3. The Study

To check whether Korean learners of L2 English undergo the fusionality parameter resetting, I have examined the English texts produced by the Korean students who took the following English-mediated courses that I taught in 2019 (Table 1).

12 students took two courses, so the total number of students were 67: S1-S22 (1st years), S22-S33 (2nd yrs.), S34-S55 (3rd yrs.), and S56-S67 (4th yrs.). Three of the 12 two-course takers took them over the two semesters.

| Seme-ster | Course Title (Acronym) | Target Year | Enrollment |
|---|---|---|---|
| 1 | History and Development of the English Language (HDE) | 2 | 17 |
| 1 | English Syntax (ES) | 3 | 26 |
| 2 | English Linguistics and English Education (ELEE) | 1 | 23 |
| 2 | Studies in Cultures of English-Speaking Countries and Multi-cultural Society (EC) | 2 | 14 |

[Table 1] Course Profiles[11]

In EC, for example, students submitted an "individual project" report each (14 in total), a "team project" report (four in total), eight group discussion reports each as a group (32 in total). The other three courses imposed a similar amount of writing tasks. I didn't require students to use interrogative sentences, but I could collect the data manually mainly from group discussion reports. I looked for indirect interrogatives containing a complementizer and a *wh*-expression at the same time and other similar relevant cases.

## 4. The Results

I was able to collect a number of examples in which the inter-English complementizer *that* is used next to a pre-posed *wh*-expression (WH) from the Korean ESL learners' texts.[12][13]

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11) The course enrollments here are only of Korean students. I have excluded 12 international students in total: HDE (3), ES (4), ELEE (3), and EC (2).

(20) I wondered <u>that what</u> is more important between language external and internal factors even though both of them are valued (S53, HDE2019–RE1).

S53 was a third–year male student who was not quite fluent in English speaking or writing. The underlined *that what* is the case in question. Here the complementizer *that* is used in the presence of the *wh*–word *what*, the subject of the embedded clause. A similar case was produced in the first post–mid–term discussion report by S29, a second–year male student.

(21) In that point, I wonder <u>that what factor or reason</u> influenced the increase of English (S29, HDE2019–DR5.2).

In (21), complementizer *that* is used along with the *wh*–NP *what factor or reason*, the subject of the embedded clause. He also produced a *that why* sequence around the end of the semester.

(22) I as discussion leader wondered <u>that why</u> they overcame Aristotle's Rhetoric (S29, HDE2019–DR8.2).

In fact, the same sequence was also produced by S27 and S30, second–year male students, and by S67, a fourth–year male student.

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12) In the source information, for example, DR3.3 means 'the 3rd discussion report by Group 3'; RE1 means 'the 1st reflective essay'.

13) I have also noticed such a case from a Chinese learner of English's text: *I will explore that how to make use of the positive and negative transfer of mother language in order to improve college English teaching level in the aspects of phonetics, grammar, culture and etc.* [HYQ, ELEE2019–DR3.1]. This case is interesting in that her L1 Chinese is not a synthetic language. It might be related to Dr. Park's observation reported in Footnote 16.

(23) I have questioned <u>that why</u> like /hl, hn, hr/ consonant cluster existed in Old English, while they are not existent in present (S27, HDE2019-DR2.4).

(24) I made this question because I wondered <u>that</u> the mass really had not any hostility (like old English nobility) to William and Norman nobility. I also wondered <u>that why</u> the book described only the nobility's hostility and rebellion, not the story of the common people's reaction to the conquest (S30, HDE2019-DR4.3).[14]

(25) As discussion leader, LEE wondered <u>that why</u> Old English lost its diverse inflections (S67, HDE2019-DR2.2).

All the students used a *that why* clause after the verbs *question* and *wonder*, which confirms the interrogative nature of the embedded clauses.

As can be seen in (24), S30 even used a *that*-clause as the complement to *wonder*. S26, a second-year female student, used the complementizer *that* to introduce a *whether*-clause, as in (26).

(26) she wondered <u>that whether</u> it can be applied to the capitalism or not (S26, EC2019-DR3.3).

This student also used the *that whether* sequence right after the matrix verb *wonder* requiring an interrogative complement clause.

S20, a first-year male student, used the *that why* sequence after the main verb *thought*.

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14) S30, a foreign-language high school graduate, displayed a high degree of variation in the use of interrogative complements. As complements to *wonder*, he also used a *how*-clause as well as a *that*-clause and a *that why* clause in the same report at that.

   (i) I wondered <u>how</u> Harold could become the king by breaking the pledge without opposing of other nobility in English.

(27) I have though <u>that why</u> Korean students who learns English doesn't study this kind of phonetics in their high school curriculum (S20, ELEE2019‑DR3.3).

In the target version of English a preposition like *about* will be required after the main verb.

The same or similar sequences appear as the complement clause of a noun head or of an equational sentence. Consider the next examples.

(28) Hermon (pseudonym), the evaluator raised a question <u>that why</u> there are no explain about stressed syllable (S5, ELEE2019‑DR3.3).

(29) Discussion contents are <u>that why</u> royalty families didn't respect English, <u>and why</u> lower classes say English, <u>also how</u> French and English communicated with each others (S24, HDE2019‑DR4.5).

(30) Another question was that "<u>If a Pope had that much influence of</u> <u>people, why did he give blessing so easily?</u>" (S45, HDE2019‑DR4.4).

S5, a first‑year male student, supplied a *that why*‑clause as the complement to the noun *question* in (28). S24, a second‑year female student, used a similar construction as the complement to the copular verb *be* in (29). She wanted to report what topics her group had a discussion about. She listed three *wh*‑interrogatives after the complementizer *that*, as the complement clause of the subject, *the discussion contents*. These two students used *that* to introduce an indirect interrogative clause. In contrast, S45, a fourth‑year female English Education major who was very fluent in English speaking and writing, used *that* to introduce a direct question in double quotation marks in (30).

Consider the following example:

(31) The problem I confronted [was] <u>that which school that</u> I had to deal
with (S62, HDE2019-RE1).

Right after the mid-term exam, S62, another fourth-year student but
majoring Education, began her report with (31) to discuss the problem for
her first reflective essay. She wanted to discuss in what ways the Black
Death influenced schools in those days. This contextual information led me
to supply the square-bracketed [*was*]. We need to note that she used *that*
to introduce a post-copular indirect interrogative clause and that she used
it both before and after the preposed *which school*.

Students also produced some cases that can be related to that sequence:

(32) J said that she cannot understand <u>that why do</u> we deny future tense
(S43, ES2019-DR8.1).

(33) To be honest, with this and further examination into theta role
made me feel really confused thinking <u>that can</u> we really call this as
syntactic (S39, ES2019-RE1).

S43, a third-year female student, used a *that why*-clause as the com-
plement of the main verb *understand*; interestingly, she applied the
Subject-Auxiliary Inversion (SAI) in the embedded *why*-clause as well. In
contrast, S39, a third-year male student, used a *that can* sequence in the
complement clause to the verb *think*, which usually requires a preposition
like *about*. What is noteworthy is that he has applied SAI in the *that*-
clause instead of using *whether*.

The following example contains the WH *that* sequence, which is similar

to that in (31). By now, the L2 English Comp system comes to look quite similar to that in adult English. S32, a second-year female student who lived many years in an English-speaking country, put the complementizer *that* in the Comp position of an embedded interrogative clause.

(34) After reading the Foreign Influences on Old English, it was new concepts <u>how much influences that</u> English went through, so she mentioned that it would be helpful and interesting to teach her future kids as a background knowledge (S32, HDE2019-DR3.1).
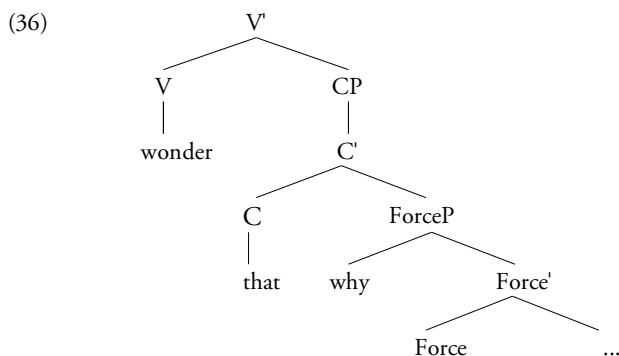
Putting *that* in the Comp position like this occurs even in the main interrogative sentence with S8, a first-year female student. She produced the following, in which *that* occurs in the main clause Comp position.

(35) The question that I thought of is: *What kind of concept <u>that</u> we can relate to the entailment?* (S8, ELEE2019-DR8.2).

# 5. Discussion and Interpretation

Examples (20)-(33) demonstrate that the transfer of the [-fusional] Comp system happens from L1 Korean into the inter-English grammar, so the task of resetting the fusionality parameter seems to pose a realistic problem for at least some Korean learners of L2 English. They seem to have already reset the parameter of head directionality from [head-last] to [head-first]. It will not only back up the VO order,[15] but also the *that* WH sequence, which is illegitimate in adult English.[16] The relevant part

of the sentence can be analyzed as follows (cf. Rizzi 1997):

(36)

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                    V'
                  /    \
                 V      CP
                 |       |
              wonder     C'
                       /    \
                      C     ForceP
                      |      /   \
                    that   why   Force'
                                /     \
                             Force    ...
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Here, the inter-English C(omp) head should be realizing the complementation function only and the Force head is realizing the clause-typing function only, as in the learners' L1 Korean.[17] After this, we must hypothesize an operation that might be called Comp Fusion, which will merge the two heads, C and Force, eventually, as part of the process

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15) Hahn (1999) reports that only four out of her nine young EFL learner participants produced the OV sequence in her longitudinal study. This suggests that the head directionality resetting happens quite easily and early.

16) Dr. PARK Myung Kwan (2020, Jan. 30, personal communication) informed me that when he Googled "wondered that why", he could collect many instances of the *that* WH sequence. This shows that the sequence might not necessarily an inter-English property. Perhaps, even though his collection may include cases of fossilization from L2 English acquisition, it might be possible that some English dialects are undergoing a historical change in the complementizer morphology from the [+fusional] parameter to a [−fusional] or [analytic] one. A more elaborate investigation into this matter exceeds the limit of this paper.

17) Dr. KIM Tae Sik (the commentator) suggests a logical possibility in which the Force head does not move to the C head because the Doubly-Filled Comp Filter has already been acquired. To check this plausible option, we need to collect a more longitudinal data set.

of resetting morphological parameter: from [−fusional] to [+fusional]. This process is attested by cases like (34) and (35), which contains *WH that* sequences.
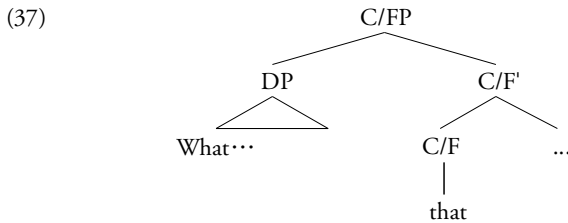
Given this, Kim's (2014) Q−Sequence must be revised and/or augmented to accommodate the sub−stage(s) which maintain(s) a complex Comp system as in (36), which must have been transferred from the L1 Korean. To recall the stages, his Q−Sequence is realized in the Declarative Question Stage, the Topical Question Stage, the Focal Question Stage, and the Indirect Question Stage. By the second stage, dealing with a mono−clausal sentence structure, the learner has developed tense−related inflectional contents, but he/she doesn't know yet how to move T into C. The pre−subject auxiliary *do* in (11a) should be hypothesized to have been inserted directly into its position. Example (35) might belong to this stage because no genuine SAI has applied; neither has the so−called Doubly−Filled Comp Filter (Chomsky and Lasnik 1977).[18)] Alternatively, it may belong to the next Focal Question Stage, and its left periphery will be analyzed as in (37). In this case, SAI, already acquired, is simply being blocked in (35) by the presence of *that*.

In either case, we might call this sub−stage a No Comp Filter Stage, a version of which in fact attested its availability long time ago in Middle English. Regarding this period, Millward and Hayes (2012) state: "From

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18) We can guess the relative clause structure might foster neglecting the acquisition of the Doubly−Filled Comp Filter. Dr. KIM Tae Sik (the conference commentator) suggests the same structure as in (36) to represent the left periphery of the English sentence represented in (37), in which I am using a composite head C/F. His idea is that the Force head with a [+declarative] feature moves to the C head with a [+complementizer] feature in both Korean and English, and the morphological difference shows up only at the PF level. This can be surely an attractive way to capture the fusionality parameter with an elaborate division of labor between syntactic and phonetic operations.

the interrogative adverbs and pronouns came *how þat, which þat*, and *when þat*" (Millward and Hayes 2012:178–179). English must have the Doubly–Filled Comp Filter installed later than those days. Moving to the Focal Question Stage will include acquiring the mechanisms of SAI and the Doubly–Filled Comp Filter.[19)]

(37)

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                        C/FP
                   ┌──────┴──────┐
                  DP            C/F'
                 ┌─┴─┐         ┌─┴─┐
               What…          C/F    …
                                │
                              that
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Kim's (2014) next, Indirect Question Stage deals with multi–clausal structures and is sub–divided into four sub–stages as in (13): The Indirect Topical Question Stage, the Indirect Focal Question Stage, the Indirect Disfocal Question Stage, and the Indirect Refocal Question Stage.

The [–fusional] parameter can be maintained in the first, Indirect Topical Question Stage because we observe examples (20)–(29) and (31), which are characterized with the *that* WH sequence and with the lack of SAI in the embedded clause. Example (32), in contrast, shows that with the *that* WH sequence used, the embedded interrogative can have SAI applied as well at least with some learners. Example (33) should be interpreted along this line. This alludes the possibility that the [–fusional] parameter can be maintained into the Indirect Focal Question Stage.

Example (30) looks like a special case in which *that* literally introduces

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19) It is interesting to imagine a parallelism between phylogeny and ontogeny in the development of a particular language like English.

a direct interrogative sentence in quotation marks. Since S45 is a highly fluent speaker of L2 English, this hints at the probability that com‐plementizer *that* has been *fossilized* for this type of use in her case (Cf. Selinker 1972). Its use looks quite similar to that of the colon in (35), or to a comma in the following.

(38) Because there are several (sometimes many) thresholds in the system separating attractor basins, <u>an important question is, how close to the threshold can we get before the system is captured by an attractor basin?</u>" (Wainwright and Mulligan 2005:309).

We can say that this case vividly reveals *that*'s functioning of com‐plementation and constitutes a link to examples in (32) and (33), which attest SAI in a complement clause and so should belong to the Indirect Focal Question Stage.

Examples (34) and (35) suggest that when the Comp Fusion has occurred, complementizer *that* is to show up in the Comp position. So, perhaps, this might constitute the initial stage of the Indirect Disfocal Question Stage, functioning as a stepping‐stone linking Kim's (2014) Indirect Topical/Focal Question Stage, on the one hand, and Indirect Disfocal Question Stage, on the other. This sub‐stage should be chara‐cterized by the parametric values of [+fusional], [−Doubly−Filled Comp], and [−SAI].

The last example to deal with at this juncture is (24), reproduced below as (39):

(39) I made this question because I wondered <u>that</u> the mass really had

not any hostility (like old English nobility) to William and Norman nobility. I also wondered <u>that why</u> the book described only the nobility's hostility and rebellion, not the story of the common people's reaction to the conquest (S30, HDE2019-DR4.3).

As mentioned before, S30 simply used *that* in the embedded clause with an interrogative sense. In a sense, he used it as a surrogate of *whether* or *if*. In fact, S53 also produced a similar sentence.

(39) I wonder <u>that</u> likewise /r/ sound, /z/ sound also requires larger oral space. Then,<u> is there any difference between /r/ and /z/ in terms of oral space</u> (S53, HDE2019-DR1.1).

He used this sentence at the beginning of the course in DR1 while he later produced example (20) with the same verb *wonder* and the *that what* sequence in its complement clause. We can imagine that some L2 English learners go through a stage in which they have *that* widened in its complementation function. Probably, this should be a case of *overextension* reported for L1 English acquisition (Denham and Lobeck 2013:39), which will cover the cases of *preposition dropping* observable with *think* in (27) and (33) (Cf. Shin, Yoon, and Chung 2017).

If we turn our attention to using the *that* WH sequence and/or indirect interrogatives in L2 Englishes, we can summarize their syntactic environments as follows:

(41) a. Verbal: [*wonder* __] (n=9); [*think* (of) __] (n=3); [*question* __] (n=1); [*understand* __] (n=1);
   b. Nominal: [*question* __] (n=2);

[*problem* (··· *be* ···) __] (n=1); [*concept* ___] (n=1); [*content* ··· *be* ··· __] (n=1)

The array of frequency in (41) shows that indirect interrogatives are predominantly used as complements to verbs of mental processes (like *wonder*, *think (of)*, and *understand*). Halliday and Matthiessen (2014:517), for example, list the verbs in (42) as verbs taking indirect interrogative clauses:

(42) a. Verbs of mental processes: *wonder, doubt; consider; find out, ascertain, check; determine, judge; predict, know*
   b. Verbs of verbal processes: *ask, demand, inquire, query.*

They distinguish these two types by means of whether their complements are about contents or ideas, or about lexicogrammatical wording. This criterion leads us to judge all of the verbs and nouns in (41) are in fact concerned with the contents of the direct interrogative clauses, such that all of them are of mental processes. This is understandable in that students are reporting their discussions and their thoughts. The only thing to note in addition is that their repertoire is quite limited to lexical items with general senses.

# 6. Summary and Conclusion

In this paper, I have brought to a focus the L2 acquisitional implications of the parametric difference between English and Korean in morphological

typology of fusionality: English is a fusional language [+fusional] while Korean is an agglutinative language [−fusional]. If parameter resetting is to occur in L2 acquisition (White 2003), then the acquisition of L2 English by Korean learners must involve a parameter resetting from their negative L1 value [−fusional] to the positive value of the target language.

Against this background expectation, this paper wanted to check whether this fusionality resetting occurs in reality, and, if positive, what stages it occurs at in existent models of syntactic development of *wh*−questions such as Kim's (2014) Q−Sequence. On the basis of manually collected examples produced by Korean college−level learners of English, I have shown that the fusionality parameter resetting must be hypothesized as ranging over Kim's Indirect Topical Question and Indirect Focal Question Stages; and probably, overflowing onto the Indirect Disfocal Question Stage as well. The argumentation is based on the observation that college−level Korean learners of L2 English widely produce quite a few sentences containing the *that* WH sequence, which seems best to be interpreted as a creature of the resetting of the head directionality parameter from [head last] to [head first] still preserving the [−fusional] parameter of their L1 Korean. They also produce sentences with the WH *that* sequence, which is expected to occur if the hypothesized Comp Fusion has occurred that merges the C and Force heads into one. These data come along with variation that involves SAI in the embedded context, which indicates that some learners are hanging around the Indirect Topical Question and Indirect Focal Question Stages. These suggest that the Comp Fusion operation cannot be assigned to any one of Kim's Q−Sequence; rather it should occur along with the acquisition of syntactic mechanisms. The stages of fusionality parameter resetting can be delineated as follows:

(43) a. *that* WH: the resetting of the head directionality    parameter [head first, −fusional]

b. *(that)* WH *that*: the resetting of the fusionality parameter [head first, +fusional, −doubly−filled Comp]

c. WH: the acquisition of the Doubly−Filled Comp Filter [head first, +fusional, +doubly− filled Comp]

The *that WH that* sequence in (31) and (43b) will probably be a combination of the [−fusional] and [+fusional] parameters. This is reminiscent of Shin's (2006) observation that *is* can be inserted or copied into the C position with the original copy not deleted.

(44) Is it is a dog?

(Shin 2006:131)

It seems that, when a new rule is formulated, it can apply along with the old one.

Lexical acquisition should also occur in parallel with the Comp Fusion and Kim's Q−Sequence. It involves streamlining the over−sized extensions of *that* and other words like *think*, under the light of their use in L1 English, and adding verbs with more specific senses that take indirect interrogatives, such as those in (42).

This result leads us to conclude that parameter resetting is a plausible approach to L2 acquisition of morphological as well as syntactic properties. It also implies that L2 English acquisition is a multi−faceted process: It involves rule formation, parameter resetting, and lexical acquisition and adjustment in progress simultaneously.

In terms of the description of the use of indirect interrogatives, which

was the second purpose of this paper, we have found out that they are entirely used with verbs and nouns of mental processes, and that the repertoire is understandably quite limited. The exploration of acquisition phenomena in this direction of use will generate more promising pedagogical implications than otherwise for acceleration of L2 English acquisition at rather advanced levels. This type of research also seems desperately needed in view of the so-called *English fever* (Krashen 2003) that is contaminating the locale we syntacticians reside in.

This work is limited in the size of the data set because it is based on naturally produced data which are manually collected; further, their chronological positions haven't been identified meticulously. As a *Language & Information Society* reviewer also suggests, more controlled types of longitudinal or cross-sectional experimental studies, like Kim (2019), will reveal a further nature of this phenomenon of resetting the morphological parameter in fusionality.[20] This paper is also limited in that it has dealt only with the Comp systems being created and modified in the process of L2 English acquisition by Korean learners. The same lens of fusionality resetting must show up in other areas such as vocabulary acquisition, the exploration of which will enlighten our understanding of the process of L2 acquisition more widely to benefit English education in Korea.

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20) Another *Language & Information Society* reviewer wondered what would trigger such parameter resetting as proposed in this paper. In a naturalistic L2 acquisition setting, White (2003) considers *communication breakdown* as one major factor. In school setting, surely, explicit instruction will help learners to notice and consciously correct their errors, in which process they may be able to reset the relevant parameter(s).

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