Access to UG in the Acquisition of Long-Distance Wh-Questions of L3 English by L1 Mongolian Learners*

Il-jae Lee
(Kwangwoon University)

This study examines a peculiar L3 error in the production of long-distance (LD) wh-questions in English, which does not seem to arise out of L1 Mongolian or L2 Russian. The linguistic behavior anticipated in Universal Grammar was to mark the LD wh-questions in English with a wh-expletive sort of *what* in matrix clause and with the meaningful wh-word in embedded clause such as **What do you think who Julianne likes?*, instead of *Who do you think Julianne likes?* These rare L3 data in English were gathered from eight L1 Mongolian college students who already had working knowledge in L2 Russian. A cross-sectional oral-translation method was employed to elicit the data of L2 Russian and L3 English, which was further analyzed with the One-Sample Kolmogorov-Smirnov test to tell apart the group difference. According to the statistical analysis, the participants seemed to employ the L2 Russian grammar in the production of LD wh-questions in L3 English, but they selected the different wh-expletive *what,* not *how* as in L2 Russian. Since many other natural languages (Hungarian, German, Romani, among others) *do* employ *what* as the wh-expletive to mark their LD wh-questions, this study concludes that the participants *somehow* selected the linguistic option that is available in natural languages, but not available in their L1 Mongolian and L2 Russian.

Keywords: L2 acquisition, L3 acquisition, long-distance wh-question, wh-scope marking, wh-expletive

1. Introduction

The influence of previous language in acquiring another language, so-called *transfer*, has been a central topic in second language (L2) acquisition. Although transfer can be a definite factor in L2 acquisition, it cannot be the most decisive factor. Since negative transfer of first language (L1) is not the source of a lot of L2 errors, attention turned to Universal Grammar (UG; Chomsky 1995) to understand the general development and possible common errors therein in human language. More recently, third language (L3) acquisition has emerged as a new field to study the transfer of L1 and L2 on L3 (Cenoz, Hufeisen, & Jessener 2001; Clyne, Hunt, & Isaakidis 2004; Ringbom 2006) and also to understand the role of UG in L3 (Flynn, Vinnitskaya, & Foley 2008). This paper attempts to put forth unique L3 data of long-distance (LD) wh-question in English. These L3 data seem to disclose a syntactic transfer of L2 but, in essence, may turn out to be a UG-anticipated error that can be found in other natural languages.

The source of syntactic errors in L3 can be associated with L1 and L2. The source can be typological distance; meaning how distant L3 is from L1 and L2 (De Angelis & Selinker 2001; Cenoz 2001; Ortega 2008); language proficiency, meaning how fluently the learner speaks L2 and L3 (Hammarberg 2001; Tremblay 2006); age and school year (Navés, Miralpeix, & Celaya 2005), etc. However, except for Flynn et al. (2008), there seem to be no earlier studies that try to analyze L3 data with a possibility of UG playing a direct role in the acquisition of L3 morpho-syntactic features. Flynn et al. (2008) tested 33 adults (L1 Kazakh, L2 Russian, L3 English) on the production of free relatives in L3 English and concluded that learners of a language use prior experience with a particular linguistic knowledge. What is important is that in the course of using prior experience, learners have continuous access to Complementizer Phrase and its hosting features. It means the acquisition of L3 features is bound to UG via L1 and L2. The syntactic agenda under consideration concerns the spell-out position of wh-word in LD wh-question of L3 English as produced by a group of L1 Mongolian-L2 Russian learners.[1)]

2. Errors in Long-Distance (LD) Wh-Question of L3 English

Before examining the LD wh-question of Mongolian, Russian, and English, the matrix wh-question is briefly introduced first in (1), with the assumption that the learner acquires the matrix wh-question before acquiring the LD wh-question.

(1) a. Julianne **hen**-tei　uulz-san　　ve?　　　　　[Mongolian]
　　　 Julianne　who-DAT　meet-PAST　Q
　　 b. **Kto**　　Julianne　vstretilcya?　　　　　　[Russian]
　　　　 whom　Julianne　met
　　 c. **Who** did　Julianne　met?　　　　　　　　[English]

Syntactic derivation of the above wh-question in each language is similar in one sense, but discrete in another concerning the spell-out position of wh-word. Similarity is related to its original position: the wh-word initially merges as a complement of verb. Yet, disparity is related to its spell-out position: while the wh-word *hen* 'who' in Mongolian in (1a) remains in its original position (Dolgormaa 2014), it appears in the sentence-initial position in Russian in (1b) (Stepanov 2000) as well as in English in (1c). Nevertheless, this similarity concerning the spell-out position of wh-word in Russian and English is not effective anymore for long-distance (LD) wh-questions. See the examples below in (2).

(2) a. Julianne **hen**-tei　　uulz-san　　gej bodoj-baina ve?　[Mongolian]
　　　 Julianne　who-DAT　meet-PAST　C　think-PRES　Q
　　 b. **Kak**　vy　dumaete　**kto**　　Julianne vstretilcya ~~kto~~?　[Russian]
　　　　 WH　you　think　　　whom　Julianne met
　　　　 'How do you think who Julianne met?' (lit.)
　　 c. **Who** do you think Julianne met ~~who~~?　　　　　　[English]

---

1) I'd like to inform that some exemplary data have been mentioned in I-J Lee and D. Lee (2012) and other undocumented L2 data from the same experiment have been dealt in the Spring Seminar of the Korean Generative Grammar Circle in June 21st, 2014 at Jeju University, Korea and also in The 16th Seoul International Conference on Generative Grammar (SICOGG 16) during August 6 and August 9, 2014, at Dongguk University.

The present position of *hen* 'who' in Mongolian in (2a) is where it initially merges and is where it is spelled-out. That is, Mongolian LD wh-question marks its scope in its originally-merged position (i.e., a wh-in situ language like Korean and Japanese), as is the same for the matrix wh-question in (1a). In Russian in (2b), *kto* 'whom' originally merges into the embedded clause as a complement of the verb *vstretilcya* 'met' - ~~kto~~ marked with a strikethrough (i.e., a wh-ex situ language). In English in (2c), as all speakers of English consciously know, *who* must be spelled-out and marks its scope in the sentence-initial position of the matrix clause (also a wh-ex situ language), although it originally merges into the embedded clause as a complement of the verb *met*.

Nevertheless, the patterns of Russian and English diverge because *kto* in Russian must be spelled-out in the sentence-initial position of *embedded* clause, not of *matrix* clause. The matrix clause is taken by a sort of wh-expletive *kak* 'how'.[2] A rudimentary acquisition inquiry can be asked again: Is there transfer of L1 or L2 grammar into L3 grammar? More specifically, is there syntactic transfer of L2 Russian into L3 English by *not* spelling out the wh-word in *matrix* clause but in *embedded* clause? And in L3 English, would some sort of wh-expletive take up the wh-word position in matrix clause, as is the case in Russian with *kak* 'how'? See (3) below for some speculative productions.

(3) <u>Transfer of L2 Russian into L3 English</u>
    a. **Who** do you think Julianne met?   [grammatical English]
    b. ***How** do you think **who** Julianne met?   [transfer of L2 Russian]

The grammatical production of L3 English in (3a) is the target. Yet, when L2 transfer is apparent, the ungrammatical production of the kind in (3b) for L3 English should be evidenced. (3b) is ill-formed because the wh-expletive *how* situates in the position in which *who* should

---

2) The wh-word *kak* is neither a manner adverb asking means, process, or style nor a measure adverb asking degree, measure, or quantity. It is a wh-expletive with no such adverbial meanings that the ordinary wh-adverb *kak* means; it is a wh-expletive with the sole role of marking such an interrogative structure as a legitimate wh-question (Stepanov 2000; Stepanov & Stateva 2006).

otherwise be spelled-out, and *who* improperly ends up in the embedded clause. This underlying structure would have been fine in Russian, but not in English.

Moreover, if L1 Mongolian plays a role in the acquisition of L3 English, the following erroneous productions in (4) are expected.

(4) Transfer of L1 Mongolian into L3 English
   a. *Do you think Julianne met **who**?
   b. *Do you think Julianne **who** met?

In (4a), the wh-word *who* remains in-situ where it has originally merged as the complement of verb, or it is spelled-out between the subject *Julianne* and the verb *met* in (4b), reflecting the SOV order of Mongolian. In either case, the structures are all ill-formed. In Mongolian, wh-word must be spelled out in its originally-merged position or in pre-verbal position, but not so in Russian or English. If erroneous constructions in (4a, b) emerge in L3 English, we can conclude that L1 transfer is viable in L3.

Next, the syntax of LD wh-question is discussed to explain how the structure is derived and that the LD wh-questions of Mongolian, Russian, and English are not so different in nature. Just like a mere genetic difference can result in astonishing uniqueness in skin color or hair texture, the mere surface difference among the three LD wh-questions in Mongolian, Russian, and English is only attributed to a discrete linguistic option that each language selects and the learner abides by. The option can be successfully selected with hardly any efforts for a native child, but the same option must be acquired with laboriously conscious efforts for an L2 or L3 learner of the same language (Lardiere 2008).

3. Syntax of Long-Distance (LD) Wh-Questions in Mongolian, English, and Russian

With the minimalist approach to understand the structure of human language, the spell-out of wh-word is assumed as follows. In order to generate a structure as a wh-question, Complementizer Phrase (CP) with

relevant syntactic features must be available with the head C and its specifier position Spec-C,[3)] and there must be a set of two lexical components as a complement of verb: wh-word (WH) and question (Q) particle (Hagstrom 1998; Rizzi 2006; Cable 2010). Then, to mark (or value) the structure as a legitimate wh-question, a matching relation called *agree* takes place actively between features in CP and features of WH and Q (cf. Pesetsky & Torrego 2007). This is all true for natural languages (Chomsky 1995), including Mongolian, Russian, and English as well. See (5) below.

(5) <u>Initial structures of wh-question</u>
    a. [CP ... [VP WH Q] C]   [Mongolian]
    b. [CP C ... [VP WH Q]]   [Russian and English]

(5a) is CP structure for a right-branching language like Mongolian; (5b) is for a left-branching language like Russian and English. Once the learner is capable of establishing such an interrogative structure and intends for a wh-question, the head C as *probe* searches down its c-commanding domain for a *goal* (WH) that holds necessary features, and then *probe* and *goal* set up in an *agree* relationship (Chomsky 2008). A subsequent syntactic operation ensues: WH and Q discretely copy to Spec-C, for all languages (Cable 2010)[4)] including Mongolian, Russian, and English as well, as in (6a, b). Here, the new copy is called *head*; the original copy is called *tail.*

(6) Copying of WH and Q in matrix wh-question
    a. [CP ... [VP **WH**+Q̶] C W̶H̶+**Q**] [Mongolian]
    b. [CP **WH+Q** C ... [VP W̶H̶+Q̶]] [Russian and English]

---

3) In essence, CP and tense phrase (TP) as functional categories form a composite phase in syntax with dynamic activities among morphosyntactic features, the technical detail of which is beyond the scope of the present paper and can be referred to Pesetsky and Torrego (2007).

4) Cable (2010) actually mentions that Q moves to C, and does not mention the copying of Q. Nevertheless, it can be considered as a terminological difference, while the idea of Q spelling-out in C remains constant.

This copying operation[5] generates two chains: a wh-chain $[WH_{HEAD}, WH_{TAIL}]$ (Rizzi, 2010, 2011) and, assumedly, a Q-chain $[Q_{HEAD}, Q_{TAIL}]$ (Cable 2010). In the chain $[WH_{HEAD}, WH_{TAIL}]$, semantic properties of WH_{TAIL} transfer to CP to determine its discourse properties via WH_{HEAD} (Bošković & Nunes 2007; Chomsky 2008); and in the chain $[Q_{HEAD}, Q_{TAIL}]$, the scopal information of Q is determined. This operation is uniform for all languages as well as Mongolian, Russian, and English.[6] What distinguishes Mongolian from Russian and English is the spell-out to assign the phonetic values. In (6a) for Mongolian, the spell-out is $[WH_{HEAD}, WH_{TAIL}]$ and $[Q_{HEAD}, Q_{TAIL}]$. In (6b) for Russian and English, the spell-out is $[WH_{HEAD}, WH_{TAIL}]$ and $[Q_{HEAD}, Q_{TAIL}]$. While Q_{HEAD} is spelled-out (receives a phonetic value) and Q_{TAIL} is silent (does not receive a phonetic value) in all three languages, WH_{TAIL} is spelled-out in Mongolian, but WH_{HEAD} is spelled-out in Russian and English. Owing to this difference of the spell-out of WH, Mongolian as a wh-in situ language diverges from Russian and English as wh-ex situ languages. However, the spell-out operation in long-distance (LD) wh-question is different between Russian and English, although it was the same for matrix wh-question.

In LD wh-question, the copying operation is the same as for matrix wh-question *only* within embedded clause, but what is distinctive is the way each of the three languages marks its scope in matrix clause when copying WH and Q.

(7) Copying of WH and Q in LD wh-question

   a. [$_{CP}$ ... [$_{CP}$ ... [$_{VP}$ WH_{TAIL}+Q_{TAIL}] C ~~WH~~+Q] C ~~WH_{HEAD}~~+Q_{HEAD}] [Mongolian]

   b. [$_{CP}$ WH+Q_{HEAD} C [$_{CP}$ WH_{HEAD}+~~Q~~ C ... [$_{VP}$ ~~WH_{TAIL}~~+Q_{TAIL}]]]   [Russian]

   c. [$_{CP}$ WH_{HEAD}+Q_{HEAD} C [$_{CP}$ WH+~~Q~~ C ... [$_{VP}$ ~~WH_{TAIL}~~+Q_{TAIL}]]]   [English]

---
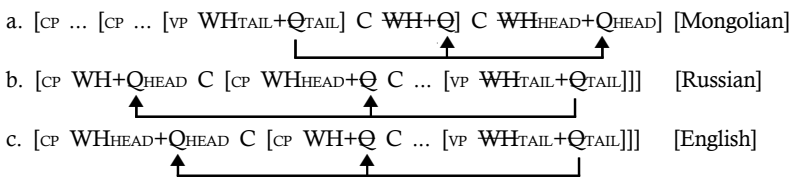
5) As mentioned in footnote 4 about *copying* and *moving,* the two terminologies indicate literally the same operation. This paper prefers to use *copying* to stress the role of tail preserving the semantic properties of wh-word.

6) The precise *goal* is Q itself, and this syntactic operation will not be dealt in detail in this paper.

Mongolian in (7a) and English in (7c) copy both WH and Q into the matrix clause, and WH<small>HEAD</small> marks the structure as a wh-question and WH<small>TAIL</small> preserves the semantic properties (Chomsky 1995). Yet, WH<small>TAIL</small> in Mongolian and WH<small>HEAD</small> in English are contrastively spelled-out. Mongolian assigns Q<small>HEAD</small> (the Q-marker) a phonetic morpheme of *-ve* to indicate a question;[7] English assigns Q<small>HEAD</small> no phonetic morpheme of any kind in a question. The matrix C in Russian in (7b) copies Q but not WH. Q<small>HEAD</small> indicates the scopal information of the structure, and WH<small>HEAD</small> in the *embedded* clause as the only head is spelled out. Nevertheless, at this phase, the structure turns into a sort of yes/no question, not a wh-question, such as **Vy dumaete kto Julianne vstretilcya?* '(Do) you think who Julianne met?' As a last resort, the Russian language selects a wh-expletive WH, directly merges it in matrix clause, assigns it a phonetic morpheme of *kak* 'how', and marks as a wh-question the otherwise ungrammatical and dubious question (Stepanov & Stateva 2006; den Dikken 2009). Below in (8) is recapitulated the spell-outs of WH and Q under consideration.

(8) Heads and tails of WH and Q in LD wh-questions
   a. [**WH**<small>TAIL</small>+**Q**<small>TAIL</small>] [~~WH+Q~~] [~~WH<small>HEAD</small>+Q<small>HEAD</small>~~]   [Mongolian]
   b. [**Kak**+**Q**<small>HEAD</small>] [**WH**<small>HEAD</small>+~~Q~~] [~~WH<small>TAIL</small>+Q<small>TAIL</small>~~]   [Russian]
   c. [**WH**<small>HEAD</small>+ **Q**<small>HEAD</small>] [~~WH+Q~~] [~~WH<small>TAIL</small>+Q<small>TAIL</small>~~]   [English]

In all three languages in (8), Q<small>HEAD</small> is spelled-out; hence, no transfer related to Q can be anticipated in L3. Then, look at WH, the spell-out of which varies for each language: WH<small>TAIL</small> for Mongolian, WH<small>HEAD</small> in *matrix* clause for English, and WH<small>HEAD</small> in *embedded* clause for Russian. Let us return to possible transfer of L2 Russian to L3 English. If L2 transfer arises, L3 English should expose errors resembling the Russian LD wh-question; that is, the meaningful wh-word in *embedded* clause and some sort of wh-expletive in matrix clause, as in (3b) **How do you think who Julianne met?*.

_____

7) The Q morpheme *-ve* in Mongolian is the same as *-ka* in Korean (Dolgormaa 2014).

4. The Experiment

4.1. Research Question

Is there transfer of L2 Russian to mark a long-distance (LD) wh-question in L3 English with respect to the spell-out of wh-word? The rather broadly-stated research question was responded while investigating the (a)symmetry between subject and object LD wh-questions, the definiteness effect between subject and object LD wh-questions, the (a)symmetry between argument and adjunct LD wh-questions, the definiteness effect between argument and adjunct LD wh-questions, and heaviness effect of complex wh-phrase (such as *which person*, *in which hotel*).

4.2. Language Selection

This section states the reason for selecting the language juxtaposition of L1 Mongolian-L2 Russian-L3 English under examination. In order to clearly view the transfer phenomenon, a selectional prerequisite for languages was that L1 had to be a kind of wh-in situ language and that L2 and L3 had to be of wh-ex situ languages and have a different strategy of scope marking with wh-word. For L1, the Altaic languages like Korean, Japanese, Mongolian, etc. were a fine example because the wh-word remains in situ. For L2 and L3, wh-ex situ languages that spell out the wh-word in the embedded clause were such as Russian (Stepanov 2000), Hungarian (Horvath 1997), German (Felser 2001; Fanselow 2006), etc.[8] and that in the matrix clause were such as English, French, Spanish, etc.

For the ease of accessibility to participants and the convenience for carrying out the experiment, L1 Korean had been first thought, but then realized while L2 English could not have been a problem; it was the combination of L1 Korean and L3 English that was nearly impossible

---

8) It means all these languages have the structure of LD wh-question *[WH+Q_{HEAD}] [WH_{HEAD}+Q] [WH_{TAIL}+Q_{TAIL}]*, and only certain German dialects also allow this structure.

to find even one in Korea. Another option was L1 Mongolian. After having consulted Mongolian graduate students in Korea about foreign language learning in Mongolia, the researcher learned that Russian was a predominant foreign language in Mongolia, and Mongolians typically grew up with much exposure to Russian from their parents and as school subjects, but English has recently been replacing the role of Russian and become a required subject throughout higher education in Mongolia. Therefore, the researcher planned that older Mongolians (roughly over the age of 25) could not be the target population because they might have learned Russian, but not English. Younger Mongolians were considered to fare better because they could have learned Russian when younger and English later on as a class subject or on their own free will.

4.3. Participant Selection

In order to collect a sufficient amount of necessary data, the target Mongolian population had to have acquired working knowledge of the rather uncommon LD wh-question in L2 Russian and L3 English; hence, they also had to be mature enough to bear a span of roughly 15 minutes in a tightly-controlled, experimental setting. For that, university students were targeted.

Data were collected from the National University of Mongolia in Ulaanbaatar in 2012.[9] The researchers literally rummaged the campus for searching L1 Mongolian learners with L2 Russian-L3 English. Within a period of eight days, the researcher managed to get hold of eight participants[10] (n=8, 3 M, 5 F, M=20.8 yrs, SD=1.58), and a

---

9) The present data collection was part of a larger experiment that investigated other interlanguage developments of L1 Mongolian learners. The researcher dearly appreciates the hospitality and the support given by the Humanities School of the National University of Mongolia.

10) Actually, there were many more learners than that who claimed to know both Russian and English, but after an interview with the research assistant who was both fluent in Russian and English, only twelve seemed to know both languages enough to produce LD wh-questions. Nevertheless, four of them could not translate either Russian or English, and were excluded from further analysis. Reviewer B comments that data from just eight participants with fifty-six elicited tokens can-

self-reported questionnaire in Mongolian was given to collect bio-data and other information on language backgrounds. Also given was a short grammar quiz in Russian and English, whose purpose was to classify the participants into proficiency levels.[11] Summary data for the participants can be found below in Table 1.

Table 1. Characteristics of the Mongolian Learners

Participant No.		1	2	3	4	5	6	7	8
Sex		F	F	F	F	F	M	M	M
Testing age		19	20	22	20	24	21	20	20
Major[a]		K	E	E	R	R	R	R	R
Starting age of language study	English	13	10	13	14	14	15	15	12
	Russian	11	6	4	9	8	6	8	6
Years of language study	English	4	10	9	6	10	3	8	7
	Russian	6	15	4	12	8	8	10	12
Years of foreign residence	English	0	0	0	6	0	0	0	0
	Russian	2	2	0	6	5	2	0	0
Score of grammar correction quiz	English	15	22	21	18	18	18	12	10
	Russian	22	23	23	23	23	16	23	22

[a] K=Korean, E=English, R=Russian

4.4. Data Collection Method

A cross-sectional oral-translation method was designed to acquire a sufficient amount of data within a single experimental session because

---

not be attractively meaningful, while Reviewer C makes a similar comment that the findings from just eight participants fall short of making generalization and that further data collections are needed. The researcher has been aware that participant gathering is a toil, especially, in L3 studies and that this present paper can only be an on-going issue and more data must be collected to generalize the claim under investigation.

11) Our initial assumption was that a majority of Mongolian university students might know L2 Russian and L3 English. But it was later found out in Mongolia that the primary L2 in the university was English. Hence, the classification into proficiency levels could not be done as planned due to an insufficient number of needed participants. The consequence was to change the originally planned quantitative analysis to an unexpected qualitative analysis. Even so, the researcher does believe that necessary data have been collected for glimpsing into the transfer issue in L3.

this sort of elicitation task enables the experiment to evoke syntactic structures that are not commonly used. Those structures also occur quite infrequently and unexpectedly in spontaneous speech. Naturalistic data can truly unveil more genuine and unconscious knowledge of the learner's linguistic competence, but at the same time, the learner may utilize an avoidance strategy to circumvent the intended complex structure by opting for an alternative, simpler way of expressions, be it syntactically and semantically correct or not.

Therefore, instead of producing a biclausal structure such as a LD wh-question *Who do you think Julianne met?*, the learner might likely marshal a series of mono-clausal structures such as *Julianne met someone. Do you know who?* to deliver the intended meaning as dispensing with the endeavor to merge two clauses into a complex clause and to apply the copying operation of *who* into the matrix clause from the embedded clause. That is, syntactically, no move or no copying is preferred if possible. In essence, an outcome of this possibility (transfer of L2 Russian into L3 English) was what the present experiment planned to examine. And this possibility was likely expected from the Mongolian learner in intermediate proficiency. If advanced in L3, data will be native-like; if low, necessary data might be a dearth of meaningful structures. Intermediate proficiency in L3 was therefore believed to fare better to examine the behavior of wh-word in LD wh-question in L3 English.

Furthermore, a production task rather than a competence task has been selected because it can elicit the intended structure more directly than, say, a psycholinguistic processing or comprehension task, as Crain and Thornton (1998) claim that correct derivations from the lexicon do not take place by accident. The elicited production task has a great advantage over other tasks. It can be readily replicated to acquire a variety of linguistic data with the exactly same method and the other is that the acquired data entail confidence and precision of what the learner meant in producing LD wh-questions. The results confirm that the elicited production task seems to help uncover the learner's grammatical knowledge of LD wh-question probably more directly than other tasks.

Particularly, Liceras, de la Fuente, and Walsh (2011) also indicate that the experiment based on a grammatical judgment task might have distorted the likely outcomes; thereby, not only the impracticable data from Spanish but the viable data from German alluded to a trivial skepticism in their entire study. In our experiment, the experimental setting and linguistic environments during all sessions were properly controlled in order to produce circumstances which were as similar as possible for each participant.

4.5 Data Collection Instrument

The experiment has prepared a series of seven video-scenes (plus five fillers), and on each scene, a person asks in Mongolian a question to the other person (unseen on the screen). The content of each scene was thoughtfully formulated with necessary functional words in Mongolian in order to draw out the specific target structure, LD wh-question. Table 2 presents the token sentences translated into English used in the two sets,[12] and the order of presenting each scene was mixed with fillers. The participant was to listen to the question and orally translate it into English first. After finishing the first set for English and taking a quick time-off, another set of similar scenes followed also in Mongolian with the same structure but different actors and words, which were to translate in Russian.[13]

---

12) The list of actual token sentences in Mongolian can be found in Appendix.

13) One dilemma the researcher had also faced at the time of the preparation of video-scenes was uncertainty of which language to have the participant translate first between Russian and English. According to I-J Lee and D. Lee (2012) for L1 Korean-L2 English and Okawara (2000) and Yamane (2003) for L1 Japanese-L2 English, a sort of Russian type of LD wh-question with the wh-expletive *what* (a few with *how*) is a prevalent structure even among advanced learners of L2 English. Hence, translation into English preceded the translation into Russian in this experiment because the former would likely induce more errors than the latter and the errors in LD wh-question in what the researcher aimed to investigate.

Table 2. Token Sentences in the Experiment: Set A and Set B

A1	Sub-Ind	Who do you think killed William?
A2	Obj-Ind	Who do you think Julianne likes?
A3	Sub-Def	Which person do you think saw Jessica?
A4	Obj-Def	Which person do you think Thomas hit?
A5	Where-Ind	Where do you think we had lunch?
A6	Where-Def	In which cinema do you think I saw the movie?
A7	How-many	How many books do you think I bought yesterday?
B1	Sub-Ind	Who do you think hit Marilyn?
B2	Obj-Ind	Who do you think Susan loves?
B3	Sub-Def	Which person do you think bit James?
B4	Obj-Def	Which person do you think George likes?
B5	When-Ind	When do you think we had pizza?
B6	When-Def	On which day do you think aunt will come?
B7	How-many	How many friends do you think I have?

In Table 2, the first two questions (1's and 2's) were to compare the (a)symmetry of subject and object indefinite wh-word *who* in LD wh-question. The next two questions (3's and 4's) were also to compare the (a)symmetry of subject and object definite wh-phrase *which person* in LD wh-question. With these questions, the effect of definiteness of wh-word can also be examined. The next two questions (5's and 6's) were to compare the effect of definiteness of adjunct wh-word in LD-question, while the last question (7's) were to examine the effect of heaviness of complex wh-phrase in LD question.[14] The response time was set for ten to twelve seconds before the next scene came up. The given time – which has been adjusted a few times after pilot studies – has been determined to be enough to produce LD wh-question. The time could also allow the participant to have an afterthought to monitor and repair the earlier production.

---

14) As stated earlier, the original hypothesis was designed to carry out a sufficient number for quantitative analysis as examining subject-object asymmetry, argument-adjunct asymmetry, definiteness effect, and heaviness effect. The plan had to be altered for a qualitative analysis.

4.6. Results

Each participant was given seven experimental sentences (two for LD subject wh-question, two for LD object wh-question, and three for LD adjunct wh-question) sorted with five fillers; hence, a total of fifty-six necessary experimental sentences were elicited from eight participants and analyzed. All L2 Russian and L3 English data were transcribed and cross-checked by two Mongolian linguists who were proficient in Russian and English. The researcher then categorized the data into five types of responses as adopted and modified from I-J Lee and D. Lee (2012): LD wh-question, wh-scope marking, embedded wh-question, mono-clause, and failure. L3 English sample data are presented in (9)-(13).

(9) <u>Type 1 (LD wh-question): wh-word appearing in the matrix clause</u>
     a. Who do you think Julianne likes? [P2]
     b. Who do you think Thomas hit? [P2]

(10) <u>Type 2 (wh-scope marking): wh-expletive and wh-word</u>
     a. What do you think who kill William? [P2]
     b. What do you think how many books I bought yesterday? [P7]
     c. What do you think which people · seen the Jessica? [P8]
     d. How do you think where I · saw the movie? [P3]
     e. How do you think · how many book I · bought yesterday? [P3]

(11) <u>Type 3 (embedded wh-question): wh-word in the embedded without</u>
     <u>wh-expletive</u>[15)]
     a. Do you know · do you know where I had a dinner? [P1]
     b. Do you know how many books I bought yesterday? [P8]
     c. Where I saw the film · do you think? [P4][16)]

---

15) Reviewer C comments that embedded yes/no wh-questions such as *Do you know what John bought?* should be experimented. If learners do not utilize the wh-expletive with these types of embedded wh-questions, he argues that the wh-expletive can possibly be a wh-question marker for matrix clause. I don't think I have clearly understood his comment, but a LD wh-question with the bridge-verb *say* such as **What do you say who bought what?* has been elicited in my other experiment and Dolgormaa (2014).

16) *Do you think where I saw the film?* could have been a yes/no question but P4 copied

(12) <u>Type 4 (mono-clause): only one clause with a single proposition</u>
    a. Who · who · the see · the see Jessica? [P1]
    b. Which people saw Jessica? [P3]
    c. Who is · loves Julianne ···? [P6]
    d. What do you think · who ···? [P8]

(13) <u>Type 5 (failure): no response or incomprehensible expression</u>
    a. Who is · who is have Julianne? [P1]
    b. · in your opinion Thomas ···? [P4]
    c. Who · William ···? [P6]

Table 3. Types of LD Wh-Questions of L2 Russian-L3 English ($n=8$)

	P1		P2		P3		P4		P5		P6		P7		P8	
	L2	L3	L2	L3	L2	L3	L2	L3	L2	L3	L2	L3	L2	L3	L2	L3
Sub-Ind	2	5	2^w	1	4	$2^?$	2	5	4	2^w	2	4	2^w	4	3	5
Obj-Ind	2	5	2	2^w	2	2^h	2	3	2	2^w	5	5	2^w	2^w	3	4
Sub-Def	4^*	4^*	2	2^w	4	4	5	3	4	2^w	2	4^*	2^{w*}	2^{w*}	5	2^w
Obj-Def	2	5	2	1^*	2	2^h	4	5	2	2^{w*}	2	5	2	2^{w*}	3	5
Where-Ind	2	3	2	2^w	2	2^h	2	3	2	2^w	2	5	2^w	5	2	3
Where-Def	2^*	3^*	2^*	2^w	2^*	2^{h*}	2^*	3	2	2^{w*}	2^*	2^{w*}	2^w	2^w	2	2^w
How-many	2	4	2	5	2	2^h	2	5	2	2^w	3	4	2^w	2^w	3	3

* Definite wh-phrase uttered with an indefinite wh-word (e.g., *which person* to who)
? Fronting of the entire embedded clause as in (11b). ^{w} = what, ^{h} = how

According to the One-Sample Kolmogorov-Smirnov test, a prevalent type was evidenced both for L2 Russian (N=56, Z=5.612, p=.000) and L3 English (N=56, Z=1.737, p=.005) LD wh-questions among the eight participants. That is, Type 2 in (10) was the preferred type that those participants selected both for L2 Russian and L3 English LD wh-questions.

   Type 2 is the grammatical option in Russian that, as in (14a) below, the meaningful wh-word *kto* 'whom' must be spelled-out at the embedded Spec-C and the wh-expletive *kak* merged into the matrix Spec-C.

---

the entire embedded clause. The possible answer to this question is neither *yes* nor *no*, but the researcher sorted this as Type 3, not Type 2, because the wh-expletive is not present.

Nevertheless, Type 2 is an ungrammatical structure in English that, as in (14b), the meaningful wh-word *who* fails to be spelled-out in the matrix Spec-C, but in the embedded Spec-C. Instead, the wh-expletive WH takes up the matrix Spec-C and marks the sentence as a Russian-type LD wh-question.

(14) a. [CP **Kak** vy dumaete [CP **kto**   Julianne vstretilcya]]? [L2 Russian]
            how you think   whom Julianne met
         'How do you think who Julianne met?' (lit.)
      b. *[CP **WH** do you think [CP **who** Julianne met]]?   [L3 English]

A quick assumption about the prevalence of Type 2 insinuates the idea of L2 transfer because such an extraordinary structure in L3 English as in (14b) *does* have the exactly same syntactic structure in L2 Russian as in (14a).

  A general description with the data from the eight participants in Table 3 can be this: P1 and P4 have the knowledge of L2 Russian LD wh-question (the left column) by looking at the number of Type 2. Their L3 English (the right column) has not developed enough to mark a LD wh-question with a wh-expletive (Type 2) in (10) or with the meaningful wh-word (Type 1) in the matrix Spec-C in (9). P1 and P2 could at best produce a type of indirect wh-question as in (11a,b), but this structure wrongly turns into a yes/no question. A strategy to avoid this unintentional yes/no question seemed to front the entire embedded clause containing the wh-word, not just the wh-word, as in (11c).

  Next, P6 and P8 manage to mark the matrix Spec-C with a wh-expletive, while fronting the wh-word only to the embedded Spec-CP (that is, Type 2). However, P6 does it just one out of seven tokens and P8 just two. Notice that all three productions of Type 2 by P6 and P8 are marked with *what,* not *how,* as in Russian with *kak.* See (15).

(15) a. **What** did you think **where** are · see watch? [P6]
      b. **What** do you think **which people** · seen the Jessica? [P8]
      c. **What** do you think **which cinema** I saw the movie? [P8]

Here, a curiosity arises. When P6 and P8 translated Mongolian into L2 Russian, they employed only *kak* 'how'. However, when translating into L3 English, *what* as the wh-expletive was selected although *how* (the equivalence of *kak*) was readily available in English. Discussion on this will be dealt in the later section.

Now let's turn to other participants (P2, P3, P5, and P7) who could more successfully mark the matrix Spec-C with a wh-expletive (Type 2) or with a meaningful wh-word (Type 1).

Although P2, P3, P5, and P7 produced Type 4 (mono-clause) and Type 5 (failure), Type 3 - a crucial error - was not evident at all. This suggests that these participants knew that a LD wh-question cannot be in the form of yes/no question and WH must be overtly spelled out in the matrix Spec-C both in Russian and English. The prototypical structure in Russian (Type 2) presided over all their LD wh-questions, which is fine in Russian but ungrammatical in English. Only P2 could produce the grammatical structure in L3 English (Type 1), not wholly, but only partially with two occasions. Other than that, it can be assumed that these four participants exploited the L2 Russian LD wh-question to generate the L3 English LD wh-question.

This assumption can be supported only with the data of P3 who used *how* (the superscript [h] in Table 3) to mark the matrix Spec-C, as shown in (16) for L2 Russian and (17) for L3 English.

(16) a. **Как** (How) ты думаешь · **кого** (whom) любить Сюзан? [P3]

    b. **Как** (How) ты думаешь · **какой цвет** (which color) любить Джорж? [P3]

    c. **Как** (How) ты думаешь **когда** (when) мы ели пицца? [P3]

    d. **Как** (How) ты думаешь · **когда** (when) приедет сестра? [P3]

    e. **Как** (How) ты думаешь **сколько** (how many) у меня друзей есть? [P3]

(17) a. **Who** likes Julia · **how** do you think? [P3]

    b. **How** do you think · William · killed **whom**? [P3]

    c. **How** do you think · **which person** · hitting by Thomas? [P3]

    d. **How** do you think · **where** we had lunch? [P3]

    e. **How** do you think **where** I · saw the movie? [P3]

    f. **How** do you think · **how many book** I · bought yesterday? [P3]

On the contrary, in order to further support the assumption (that is, the transfer of L2 Russian into L3 English), we must answer why P2 and P5 strictly employed *what* (the superscript ^w in Table 3) as the wh-expletive as in (18), not *how* as did in L2 Russian. The explanation of this choice of *what* not *how* can be a crucial source to determine the transfer of L2 Russian into L3 English, the detailed explanation of which will be dealt in the next section for discussion.

(18) a. **What** do you think · **who** · William · who kill · William? [P2]
b. **What** do you think **which person** saw Jessica? [P2]
c. **What** do you think **where** we had the dinner? [P2]
d. **What** do you think **in which** · **movie theatre** I watch the movie? [P2]
e. **Who** loves Julia · **what** do you think about this? [P5]
f. **What** do you think William killed **who**? [P5]
g. **What** do you think · **which person** saw Jessica? [P5]
h. **What** do you think about **who** Thomas beat? [P5]
i. **What** do you think · **where** we eat our dinner? [P5]
j. **What** do you think · **where** I watched movie? [P5]
k. **What** do you think · yesterday **how many books** I bought? [P5]

The data of P7 in (19) show a possible case of back-transfer; that is, the knowledge of a language acquired later (that is, L3 English) transfers to the language acquired beforehand (that is, L2 Russian). P7 marked all of the L2 Russian LD wh-questions with an uncommon, less-nativelike *kto* 'what' in (19) instead of *kak*, except for one occasion in (19c). Also, all of the L3 English LD wh-questions were marked with *what*, as in (20).

(19) a. **Что** (What) ты думаешь · **кто** (who) ударил Вилльяма? [P7]
b. **Что** (What) ты думаешь · **кого** (whom) любить Кимсан? [P7]
c. **Что** (What) ты думаешь · **кто** (who) укусил Джеймса? [P7]
d. **Как** (How) ты думаешь **какой цвет** (which color) любит Жорж? [P7]
e. **Что** (What) ты думаешь **когда** (when) · мы ели пиццу? [P7]
f. **Что** (What) ты думаешь **сколько** (how many) у меня друзей? [P7]

(20) a. **What** do you think · **who** is · killed William? [P7]
    b. **What** do you think **who** is watched Julian? [P7]
    c. **What** do you think **who** · beatted Thomas? [P7]
    d. **What** do you think · **which cinema** I saw the movie? [P7]
    e. **What** do you think **how many books** I bought yesterday? [P7]

It can be argued that the kind of Russian dialect P7 had been exposed to exclusively marks LD wh-question with *kto* 'what', not *kak* 'how'. According to his bio-data, he started to learn Russian when he was eight years old, had ten years of Russian studying, and was majoring in Russian language in university. The researcher believes that he has been more likely exposed to and trained to use standard Russian using *kak* in LD wh-question. Moreover, the test scores (Russian 23, English 10) reveal that his competence in Russian grammar seemed to be higher than the average, while English was likely below the average. Back-transfer of L3 English into L2 Russian is a bit difficult to assume.

    The next section brings out some of the interesting findings reported in the result, and discusses that the strategy to mark a LD wh-question in L3 English may not be due to the transfer of L2 Russian. That is, the selection of *what* as a wh-expletive in L3 English LD wh-question is not a syntactic transfer of *kak* 'how' or *kto* 'what' in L2 Russian. It might be a UG-anticipated option readily available throughout human languages.

5. Discussion

    This paper aimed to examine the transfer of the knowledge to mark a long-distance (LD) wh-question of L2 Russian into L3 English, in terms of the way to spell out the meaningful wh-word. More specifically, when the position of the meaningful wh-word in LD wh-question that is spelled-out varies among L1, L2, and L3, a linguistic curiosity invited us to contemplate whether L3 draws on a strategy from L1 or L2 or directly exploits L3 via UG. The former is considered *transfer*; the latter *access to UG* (Flynn et al. 2008).

(21) a. [CP WH ... [CP WH ... **WH**]   [Mongolian]
    b. [CP WH ... [CP **WH** ... WH]   [Russian]
    c. [CP **WH** ... [CP WH ... WH]   [English]

In (21a), WH copies are generated, but the meaningful wh-word WH (in bold) is spelled-out in the original position in Mongolian. For Russian in (21b), the copying operation for WH is delimited within the embedded clause and the meaningful wh-word WH is spelled-out there. The matrix Spec-C is taken by a semantically vacuous wh-expletive WH which receives a phonetic value of *kak*. For English in (21c), the meaningful wh-word WH is spelled-out in the matrix Spec-C. In this combination, if transfer of L2 Russian were to be in substantial effect, L3 English would fall back on the structure on either (21a) or (21b). On the other hand, if L3 English LD wh-question substantiates a discrete structure that cannot be traced back to L1 or L2, it can be said that UG still plays a role in the acquisition of L3.

Necessary data have been elicited from eight participants of L1 Mongolian-L2 Russian-L3 English. Largely, the LD wh-question in L3 English had the same syntactic structure as L2 Russian, but the employment of the wh-expletive was different; *what* not *how* as in L2 Russian, as in the contrastive data in (22).

(22) a. **Kak** vy   dumaete **kto**   Julianne vstretilcya? [L2 Russian]
      how you   think   whom Julianne met
    b. **What** do you think **who** Julianne met?   [L3 English]

There seems to be an apparent reason to believe that the transfer of L2 Russian took place in L3 English. The strategy for LD wh-question in L2 Russian has been successfully acquired by the L1 Mongolian participants; that is, to spell-out the meaningful wh-word *kto* 'whom' in embedded clause and a wh-expletive *kak* 'how' in matrix clause as in (22a). They then utilized the same strategy in the production of LD wh-question in L3 English as in (22b), probably because they have not acquired in English to spell out the meaningful wh-word in matrix clause as in *Who do you think Julianne met?*. Theoretically, this is a reasonable

assumption. This strategy of employing a wh-expletive in matrix clause is more economical according the Merge-over-Move principle (Chomsky 1995). That is, Merge is preferred over Move. Russian respects this principle, but English chooses not to.

(23) a. [CP Q vy dumaete [CP **kto** Julianne vstretilcya]?
     b. [CP Q you think [CP **who** Julianne met]?

At the point in which the question morpheme Q marks the construction as a matrix interrogative and the meaningful wh-word spells-out in embedded Spec-C (Cable 2010), the subsequent step is not to leave the structure as it is; otherwise, it turns to an unintended yes/no question, as in (24).

(24) a. *Vy dumaete **kto** Julianne vstretilcya?
     b. *Do you think **who** Julianne met?

The questions in (24) are dubious both in Russian and English because necessary featural agreement has not occurred between *probe* in matrix Spec-C and *goal* in embedded Spec-C. Russian selects Merge of the wh-expletive *kak* 'how' in matrix Spec-C to agree with *kto* in embedded Spec-C. In English, matrix Spec-C selects Move of the meaningful wh-word *who* and spells it out there, as in (25).

(25) a. **Kak** vy dumaete **kto** Julianne vstretilcya?
     b. **Who** do you think ~~who~~ Julianne met?

The Mongolian participants have acquired the more economical option of Merge of a wh-expletive from L2 Russian, and directly transferred this very knowledge of Merge of a wh-expletive into L3 English, as in (26), borrowed from the data aforementioned.

(26) a. **What** do you think **where** we had the dinner? [P2]
     b. **What** do you think · **which person** saw Jessica? [P5]
     c. **What** do you think · yesterday **how many books** I bought? [P5]
     d. **What** did you think **where** are · see watch? [P6]

     e. **What** do you think · **who** is · killed William? [P7]

     f. **What** do you think **which cinema** I saw the movie? [P8]

     g. **How** do you think · **how many book** I · bought yesterday? [P3]

It is very plausible to furnish these data with a conclusion that since Merge is a more economical option and is already available via L2 Russian, the Mongolian participants literally (and possibly unknowingly) made use of it for L3 English; hence, the transfer of L2 Russian. Therefore, such constructions in (26) ensued at the cost of ungrammaticality in English. This conclusion would support the earlier account (De Angelis & Selinker 2001; Cenoz 2001; Ortega 2006) that L2 Russian can be the source of syntactic errors in LD wh-questions in L3 English because the two languages are typologically similar in terms of ex-situ wh-word.

Yet, there is one specific issue that needs to be answered before making a firm conclusion of the transfer of L2 Russian into L3 English. That is, why did the participants predominantly select the wh-expletive *what* instead of *how* in L3 English, when the selection of *kak* 'how' in Russian is grammatical? In essence, such constructions in (26) can be easily detected in other natural languages such as Hungarian (Horvath 1997), German (Fanselow 2006), Romani (McDaniel 1989), Hindi (Dayal 1994), Passamaquoddy (Bruening 2006), Warlpiri (Legate 2011), among others.

(27) a. **Mit**   állítottál,   hogy **kivel**   találkozott János?
     what-acc claimed-2sg that **who**-with met   John-nom
     'With whom did you claim that John met?'   [Hungarian]

   b. **Was** glaubst du   **wen**   Irina liebt?
     what believe you **whom** Irina loves
     'Who do you believe that Irina loves?'   [German]

   c. **So** o   Demìri mislinol **kas**   Arìfa dikhÍa?
     what does Demir think   **whom** Arifa saw
     'Whom does Demir think that Arifa saw?'   [Romani]

   d. jaun **kyaa** soctaahai meri **kahaaN** jaayegii?
     John **what** thinks   Mary **where**   will-go
     'Where does John think Mary will go?'   [Hindi]

e. **Keqsey** Mali   itom   **wen** nil kisi-niskam-uk?
   what   Mary say   **who** I   PERF-dance-with [Passamaquoddy]
f. **Nyarrpa**-ngku   yimi-ngarru-rnu   Jakamarra-rlu   kuja-ka
   how-2sg.obj   speech-tell-past   Jakamarra-erg   DECL-pres
   nyarrpara-kurra   ya-ni   Jampijinpa?
   where-all   leave-past   Jampijinpa
   'Where did Jakamarra tell you Jampijinpa is going?' [Warlpiri]

As can be seen in (27), the use of the wh-expletive *what* is ubiquitous in natural languages in (27a-e). It is rather uncommon to employ the wh-expletive *how* as in Walpiri (27f).

At this moment, the agenda that I would like to present is whether the Mongolian participants actually transferred the knowledge of LD wh-question in L2 Russian into their L3 English or whether they just exploited a general strategy of LD wh-question readily available in natural languages. That is, Merge of a wh-expletive is preferred over Move of a meaningful wh-word (Chomsky 1995), and the assignment of a phonetic value to the wh-expletive that matches some sort of the default wh-word (assumedly, *what* or *how*) (S.H. Hong 2009). The Mongolian participants indeed seemed to have preferred Merge over Move; hence, it is difficult to tell apart whether the transfer of L2 Russian played a role for Merge or whether a general strategy in language acquisition guided them to prefer Merge.

On the other hand, the phonetic assignment of *what* seems to allude to the possibility of the latter option that the LD wh-questions in L3 English were produced as anticipated by the principles of natural language (i.e. UG).

Nevertheless, L2 acquisition literature reports numerous occurrences of such erroneous LD wh-questions in English as produced by L1 Korean (Lee & Lee 2012), L1 Japanese (Schulz 2011), L1 Basque (Gutiérrez & Mayo 2008), L1 French (Slavkov 2011), L1 Bulgarian (Slavkov 2011), among others. Just like in English, all these L1's as well as Mongolian do not allow their LD wh-questions to be taken up by a wh-expletive and a meaningful wh-word. Yet, their L2's reveal an emergence of wh-expletive (predominantly *what*) in matrix clause and

the meaningful wh-word in embedded clause, as does in Russian and do in those languages in (28).

(28) a. **What** do you think **which person** buy this clothes? [from Korean adult]
　　 b. **What** does Tom think **who** Anne should invite?　[from Japanese adult]
　　 c. **What** do you think **who** lived in that house?　[from Basque child]
　　 d. **What** did you think **where** he watch TV?　　　[from French child]
　　 e. **What** do you think **who** John kissing?　　　　[from Bulgarian child]

Although their L1's in (28) nor adult English do not grant a wh-expletive to take up the matrix Spec-C, such a construction *does* emerge in L2 English. Then, where does this sort of erroneous LD wh-question in English come from? Since it is obviously not due to language transfer, another option to turn to is Universal Grammar (UG). Language learner seems to initially exploit a more economical option (i.e. Merge over Move) in LD wh-question, regardless of the status of previous language. The Mongolian participants naturally adopted the Merge option and were bound to produce the LD wh-question with the wh-expletive *what* in L3 English, which happens to resemble the structure of their L2 Russian. The type of wh-expletive was different, not *how* but *what*.

It can be fair to conclude that when the Mongolian participants produced the LD wh-question in L3 English, they did not transfer the structural knowledge of LD wh-question in L2 Russian. Instead, they must have had access to UG in search of a more economical option to produce the LD wh-question in L3 English.

References

Bošković, Željko and Jairo Nunes. (2007). The copy theory of movement: A view from PF. In Norbert Corver and Jairo Nunes, ed., *The Copy Theory of Movement*, 13-74. John Benjamins Publishing Company: Amsterdam/ Philadelphia.

Bruening, Benjamin. (2006). Differences between the *wh*-scope-marking and *wh*-copy constructions in Passamaquoddy. *Linguistic Inquiry* 37, 25-49.

Cable, Seth. (2010). *The Grammar of Q: Q-Particles, Wh-Movement, and Pied-Piping*.

Oxford University Press.

Cenoz, Jasone, Britta Hufeisen, and Ulrike Jessner (2001). *Cross-linguistic Influence in Third Language Acquisition: Psycholinguistic Perspectives.* Clevedon: Multilingual Matters.

Cenoz, Jasone. (2001). The effect of linguistic distance, L2 status and age on cross-linguistic influence in third language acquisition. In Jasone Cenoz, Britta Hufeisen and Ulrike Jessner, eds., *Crosslinguistic Influence in Third Language Acquisition: Psycholinguistic Perspectives*, 8-20. Clevedon: Multilingual Matters.

Chomsky, Noam. (1995). *The Minimalist Program*. Cambridge, MA: MIT Press.

Chomsky, Noam. (2008). On phases. In Robert Freidin, Carlos. P. Otero, and Maria Luisa Zubizarreta, eds., *Foundational Issues in Linguistic Theory: Essays in Honor of Jean-Roger Vergnaud*, 133-166. Cambridge, MA: MIT Press.

Clyne, Michael, Claudia Rossi Hunt, and Tina Isaakidis. (2004). Learning a community language as a third language. *International Journal of Multilingualism* 1, 33-52.

Crain, Stephen and Rosalind Thornton. (1998). *Investigations in Universal Grammar: A Guide to Experiments on the Acquisition of Syntax and Semantics*. The MIT Press.

De Angelis, Gessica and Larry Selinker. (2001). Interlanguage transfer and competing linguistic systems in the multilingual mind. In Jasone Cenoz, Britta Hufeisen and Ulrike Jessner, eds., *Crosslinguistic Influence in Third Language Acquisition: Psycholinguistic Perspectives*, 42-58. Clevedon: Multilingual Matters.

den Dikken, Marcel. (2009). On the distribution of successive-cyclicity - Adjunction, resumption and scope marking as the roads to success in long-distance relation building. Ms., CUNY, New York.

Dolgormaa, Uujinbai. (2014). *Effects of Language Proficiency on the Acquisition of L2 Long-Distance Multiple Wh-Questions*. Unpublished doctoral dissertation. Kwangwoon University, Korea.

Fanselow, Gisbert. (2006). Partial movement. In Martin Everaert and Henk van Riemsdijk, eds., *The Blackwell Companion to Syntax, Vol. III*, 437-492. Malden/Oxford/Carlton: Blackwell Publishing.

Felser, Claudia. (2001). Wh-expletives and secondary predication: German partial *wh*-movement reconsidered. *Journal of Germanic Linguistics* 13, 5-38.

Flynn, Suzanne, Inna Vinnitskaya, and Claire Foley. (2008). Complementizer phrase features in child L1 and adult L3. In Juana M. Liceras, Helmut Zobl, and Helen Goodluck, eds., *The Role of Formal Features in Second Language Acquisition*, 514-533. Lawrence Erlbaum Associates.

Gutiérrez, María Junkal and María del Pilar García Mayo. (2008). Non-adult long-distance wh-questions in the non-native acquisition of English. In Carmen Pérez Vidal, Maria Juan-Garau, and Aurora Bel Gaya, eds., *A Portrait of the Young in the New Multilingual Spain*, 264-288. Multilingual Matters.

Hagstrom, Paul. 1998. *Decomposing Questions*. Unpublished doctoral dissertation. MIT.

Hammarberg, Björn. (2001). Roles of L1 and L2 in L3 production and acquisition. In Jasone Cenoz, Britta Hufeisen and Ulrike Jessner, eds., *Crosslinguistic Influence in Third Language Acquisition: Psycholinguistic Perspectives*, 21-41. Clevedon: Multilingual Matters.

Hong, Sun Ho. (2009). *Aspects of the Syntax of Wh-Questions in English and Korea*. Hanbit Publishing: Seoul, Korea.

Horvath, Julia. (1997). The status of "WH-expletives" and the partial WH-movement construction of Hungarian. *Natural Language and Linguistic Theory* 15, 509-572.

Lardiere, Donna. (2008). Feature assembly in second language acquisition. In Juana M. Liceras, Helmut Zobl, and Helen Goodluck, eds., *The Role of Formal Features in Second Language Acquisition*, 106-140. Lawrence Erlbaum Associates.

Lee, Il-jae and Dami Lee. (2012). On the acquisition of wh-scope marking in Korean-English interlanguage. *Language and Linguistics* 57, 159-195. [Korean journal]

Legate, Julie Anne. (2011). Warlpiri *wh*-scope marking. *Syntax* 14, 97-121.

Liceras, Juana M., Anahi Alba de la Fuente, and Lia Walsh. (2011). Complex *wh*-questions in non-native Spanish and non-native German: Does input matter? In Luis A. Ortiz-López, ed., *Selected Proceedings of the 13th Hispanic Linguistics Symposium*, 139-149. Somerville, MA: Cascadilla Proceedings Project.

McDaniel, Dana. (1989). Partial and multiple wh-movement. *Natural Language and Linguistic Theory* 7, 565-604.

Navés, Teresa, Immaculada Miralpeix, and M. Luz Celaya. (2005). Who transfers more ... and what? Crosslinguistic influence in relation to school grade and language dominance in EFL. *International Journal of Multilingualism* 2, 113-134.

Okawara, Izumi. (2000). *On the Acquisition of Long-Distance Wh-Questions by Japanese Learners of English*. BA thesis. Gunma Prefectural Women's University, Japan.

Ortega, Mireia. (2008). Cross-linguistic influence in multilingual language acquisition: The role of L1 and non-native languages in English and Catalan oral production. *Íkala, Revista de Lenguaje y Cultura* 13, 121-142.

Pesetsky, David and Esther Torrego. (2007). The syntax of valuation and the interpretability of features. In Simin Karimi, Vida Samiian, and Wendy K. Wilkins, eds., *Phrasal and Clausal Architecture: Syntactic Derivation and Interpretation*, 262-294. Amsterdam: John Benjamins Publishing.

Ringbom, Håkan. (2006). The importance of different types of similarity in transfer studies. In Janusz Arabski, ed., *Cross-linguistic Influences in the Second Language Lexicon*, 36-45. Clevedon: Multilingual Matters.

Rizzi, Luigi. (2006). On the form of chains: Criterial positions and ECP effects.

In Lisa Lai-Shen Cheng and Norvert Corver, eds., *Wh-movement: Moving On*, 97-133. MIT Press, Cambridge, MA.

Rizzi, Luigi. (2010). On some properties of criteria freezing. In E. Phoevos Panagiotodis, ed., *The Complementizer Phase: Subjects and Operators*, 17-32. Oxford University Press.

Rizzi, Luigi. (2011). Minimality. In Cedric Boeckx, ed., *The Oxford Handbook of Linguistic Minimalism*, 220-238. Oxford University Press.

Schulz, Barbara. (2011). Syntactic creativity in second language English: *wh*-scope marking in Japanese-English interlanguage. *Second Language Research* 27, 313-341.

Slavkov, Nikolay. (2009). *The Acquisition of Complex Wh-Questions in the L2 English of Canadian French and Bulgarian Speakers: Medial Wh-Constructions, Inversion Phenomena, and Avoidance Strategies*. Unpublished doctoral dissertation, University of Ottawa, Canada.

Slavkov, Nikolay. (2011). Derivational complexity effects in L2 acquisition. In Mihaela Pirvulescu, María Cristina Cuervo, Ana T. Pérez-Leroux, Jeffrey Steel, and Nelleke Strik, eds., *Selected Proceedings of the 4th Conference on Generative Approaches to Language Acquisition North America (GALANA 2010)*, 227-240. Somerville, MA: Cascadilla Proceedings Project.

Stepanov, Arthur and Penka Stateva. (2006). Successive cyclicity as residual *wh*-scope marking. *Lingua* 116, 2107-2153.

Stepanov, Arthur. (2000). Wh-scope marking in Slavic. *Studia Linguistica* 54, 1-40.

Tremblay, Marie-Claude. (2006). Cross-linguistic influence in third language acquisition: The role of L2 proficiency and L2 exposure. *CLO/OPL* 34, 109-119.

Yamane, Maki. (2003). *On Interaction of First Language Transfer and Universal Grammar in adult Second Language Acquisition: Wh-movement in L1-Japanese/ L2-English Interlanguage*. Unpublished doctoral. dissertation, The University of Connecticut, USA.

Il-jae Lee
Department of English
Kwangwoon University
20, Gwangun-ro, Nowon-gu, Seoul 139-701, Korea
E-mail: ijlee@kw.ac.kr

Appendix

A1
Чи   хэн Жулиен-д   сайн гэж бодож-байна   вэ?
Chi khen Julianne-d   sain gej bodoj-baina   ve
You who Julianne-DAT   like C   think-PRES   Q
'Who do you think Julianne likes?'

A2
Чи   Вилльям хэн-ийг   ал-сан   гэж бодож-байна   вэ?
Chi William hen-iig   al-san   gej bodoj-baina   ve
You William whom-ACC   kill-PAST   C   think-PRES   Q
'Who do you think killed William?'

A3
Чи   ямар   хүн   Жессика-г   хар-сан   гэж бодож-байна   вэ?
Chi yamar   hun   Jessica-g   har-san   gej bodoj-baina   ve
You which   person   Jessica-ACC   see-PAST   C   think-PRES   Q
'Which person do you think saw Jessica?'

A4
Чи   Томас   аль   хүн-ийг   цохи-сон   гэж бодож-байна   вэ?
Chi Thomas   ali   hun-iig   tsohi-son   gej bodoj-baina   ve
You Thomas   which   person-ACC   hit-PAST   C   think-PRES   Q
'Which person do you think Thomas hit?'

A5
Чи   бид-нийг   хаана   өдөр-ийн   хоол ид-сэн   гэж бодож-байна   вэ?
Chi bid-niig   haana   odor-iin   hool id-sen   gej bodoj-baina   ve
You we-ACC   where   afternoon-POSS   food eat-PAST C   think-PRES   Q
'Where do you think we had lunch?'

A6
Чи   нам-айг   аль   кинотеатр-т   кино   үз-сэн   гэж бодож-байна   вэ?
Chi nam-aig   ali   kinoteatr-t   kino   uz-sen   gej bodoj-baina   ve
You I-ACC   which   cinema-in   movie see-PAST C   think-PRES   Q
'In which cinema do you think I saw the movie?'

A7
Чи   нам-айг   өчигдөр   хэд-эн   ном   худалдаж ав-сан   гэж бодож-байна   вэ?
Chi nam-aig   uchigdur   hed-en   nom   hudaldaj av-san   gej bodoj-baina   ve
You I-ACC   yesterday   how-many   book buy   take-PAST C   think-PRES   Q
'How many books do you think I bought yesterday?'

A8
Чи   хэн юу   худалдаж ав-сан   гэж бодож-байна   вэ?
Chi hen yu   hudaldaj av-san   gej bodoj-baina   ve
You who what-ACC buy   take-PAST C   think-PRES   Q
'Who do you think bought what?'

A9
Чи   нам-айг   хаана   юу   идэж-байна гэж бодож-байна   вэ?
Chi nam-aig   haana   yu   idej-baina gej bodoj-baina   ve
You I-ACC   where   what eat-PRES   C   think-PRES   Q
'Where do you think I am eating what?'

A10
Би хэн түрүүлж   яв-даг-ийг   мэднэ.
Bi hen turuulj   yav-dag-iig   medne
I   who first   go-PRES-ACC   know
'I know who goes first.'

A11
Би чам-айг   хаана   амьдар-даг-ийг   мэдэх-гүй.
Bi cham-aig   haana   amidar-dag-iig   medeh-gui
I   you-ACC   where   live-PRES-ACC   know-not
'I don't know where you live.'

A12
Би чам-айг   юу   хийж-байгаа-г   мэдэх-гүй.
Bi cham-aig   yu   hiij-baigaa-g   medeh-gui
I   you-ACC   what   do-PRES-ACC   know-not
'I don't know what you are doing.'