

Interlinguistic Transfer of Semantic and Syntactic Information: Using Form–meaning Mapping between Korean and English Verbs*

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[Abstract]

This study investigates the transfer of L1 information, especially semantic and syntactic information, into English specific usage. As learners' L1 information is mapped onto English verbs, L2 forms are integrated with the semantic and syntactic information transferred from L1 lexical entries. To examine into the form-meaning mapping between Korean and English verbs, L1 translations corresponding to L2 words were provided during the mapping activities. Accordingly, learners easily adopted L1 translations and activated their L1 information to link with different types of English verbs. The outcome of the mapping activities might account for the process of transferring the semantic and syntactic information of L1. Participants benefited from their L1 information to understand the semantic role of verbs and their complements. The result of the post-tests suggested that learners mostly could connect L1 information with the semantic and syntactic feature of verbs. As a

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pedagogical implication, the corrective specification and feedback enhanced the form-meaning mapping between L1 and L2.

Key Words: L1 translation, semantic and syntactic information, transfer of L1 information, transitive/intransitive/ditransitive verb, form-meaning mapping.

1. Introduction

Learning vocabulary is the integral part of comprehension and production of language (Laufer, 1998; Nunan, 1999; Vermeer, 2001). Considering that the knowledge of words enhances understanding sentences or texts, the extension of lexical knowledge is important especially for EFL learners. Regarding the build-up of the lexical knowledge on the meaning, learners need to study other lexical features such as the morphological forms and word class and additionally analyze the sentence structure (Schmitt, 1997). However, compared to advanced learners, low-level learners rarely reach the point where they unconsciously process the sentences and implicitly acquire words within the context. What's worse, provided with the limited exposure to L2 in EFL class settings, they have difficulty in frequently encountering and practicing the language.

According to Schmitt (2008), an explicit approach, which establishes the form-meaning link, is effective at the early stage of learning. Assuming that most of the low-level learners have a limited vocabulary size, through the explicit learning, the increase of attention and notice can occur for form-function association for novel L2 vocabulary (Ellis, 2015; Laufer & Osimo, 1991; Schmidt, 1992). As the

form-meaning mapping or association is emphasized for acquiring newly learned L2 words, L1 can provide the concept and resource to approach L2 forms (Barcroft, 2002; Kroll & Stewart, 1994; Kroll & Sunderman, 2003). According to the previous psycholinguistic studies, L1 translation is initially activated to process L2 word forms, which will be mapped to L2 semantic structure (e.g., Blum & Levenston, 1978; Ringbom, 1983; Ellis, 1997; Hall, 2002; Jiang, 2004). Especially, the coactivation between the L1 and L2 lexical entry within learners' lexicon accounts for the stages of mapping between the L1 translation and the L2 form during the acquisition of L2 words (Jiang, 2000, 2002, 2004).

Through the form-meaning mapping between interlingual entries, L1 lexical information involving semantic and syntactic properties is transferred to L2 lexical entries (Jiang, 2004). Nevertheless, the previous study (Jiang, 2004) emphasizes only the transfer of semantic information from the L1 to the L2 lexical entry. Since the L1 semantic structure is intertwined with its syntactic properties in the L1 lexical entry, this study focuses on the transfer of both semantic and syntactic information from the L1 to the L2 lexical entry.

To examine into lexical entries, Pinker (2009) allows the child to parse sentences of the unknown verbs by using existing lexical rules and tree-building procedures. Different from native speakers, low-level EFL students lack knowledge about L2 lexical rules. Accordingly, this study selects and associates the semantic mapping with L1 information (semantic and syntactic properties). After discerning the overall procedure of mapping with a teacher, students will independently conduct the form-meaning mapping between their L1 information and L2 words. To be specific, during the mapping activities, semantic and syntactic information of L1 is transferred to link between L1 and L2 words.

In the field of L2 language acquisition, more discrete observation and analysis

according to word classes are required because each lexical unit involves the different grammatical function in sentences. During mapping activities, three middle school students deal with the syntactic construction of verbs containing transitive, intransitive and ditransitive phrases associated with L1 information. Since this study inspects the activation of L1 translations, verbs are classified by their meaning to be the material for mapping activities. Depending on the qualitative data obtained from the mapping activities and tests, the present study will investigate how learners acknowledge and distinguish semantic and syntactic properties of each verb. For the purpose of this study, the following research questions will be addressed:

First, how do low-level learners transfer their L1 information (semantic and syntactic information) for mapping between L1 and English verbs?

Second, how do learners recognize semantic and syntactic information of each verb?

2. Literature Review

2.1 Lexical Entries of Verbs and Argument Structure

The composition of lexical entries determines information of the lexical item. According to Levelt (1993), the lexical entries of lexical items specify at least four types of information: the meaning, the syntactic form, the morphological structure, and the phonological shape. As he follows the model introduced by Kempen and his colleagues (Kempen & Huijbers, 1983; Kempen & Hoenkamp, 1987), he claims that the lexical entries are divided into the lemma and the lexeme, which contain different types of information, respectively (Roelofs, Meyer & Levelt, 1998). For example, as

to syntactic information related with semantic information, the verb lemma (e.g., give) specifies the type of arguments it takes (e.g., a direct and an indirect object). Additionally, it entails other information about the verb including the tense (e.g., present or past), aspect (e.g., perfective or imperfective), number (singular or plural) and person (first, second or third person). In terms of morphophonological information (pronunciation and spelling), it is recovered from the lexeme and encoded into the morphosyntactic specification (e.g., I gave children chocolate cookies) from the lemma during speaking (Levelt, 1995). Since the lexical entries specifying different lexical items are interconnected with nodes, the activated lexical entries result in the production of speech (Levelt et al., 1991).

Concerning the lexical entry of the verb, Pickering and Branigan (1998) classify the syntactic representation of the verb into three types of information as follows Levelt's model of the lemma/lexeme distinction: Category, featural and combinatorial information. Category information indicates the syntactic category of a word (e.g., verb). Featural information covers the specifications of the number, person, tense, and aspect of a verb (e.g., present tense, perfective aspect, first person, plural). Combinatorial information specifies the possible combination of the verb with other linguistic units (e.g. A verb with a subject and a direct object) (Pickering & Branigan, 1998). Likewise, the lexical entry of the verb also indicates the grammatical relations with arguments involving semantic roles (e.g., AGENT, PATIENT, LOCATION). As the lexical entry contains the morphological specifications, the single lexical entry of the verb (e.g., give) represents all the inflected forms (e.g., give, gave, given, gives, giving) (Clark, 1995).

Besides, Pinker (2013) enumerates the specifications belonging to the lexical entry of the verb: morphological, phonological and syntactic information which includes the part-of speech category, the argument structure and the semantic structure of the

verb. Specially, he emphasizes the argument structure (also called the subcategorization frame) of verbs in relation to subjects, objects and objects of prepositions (or oblique objects), which is derived from their meaning. Conceivably, the argument structure specified by the lexical entry of the verb represents constituents of the grammatical sentence (Pinker, 2009, 2013).

2.2 Transfer of the L1 information

Native speakers are capable of intuitively figuring out possible combinations of verbs with arguments based on their various syntactic expressions. Furthermore, the ability to make syntactic judgements makes it possible to produce novel combinations of arguments and adjuncts (Levin, 1993). Different from native speakers, EFL learners need to acquire the lexical rules and the relevant subcategorization possibilities for verbs.

In the processes of adult L2 acquisition, proposed by Jiang (2000), L2 forms are initially mapped to L1 translations. In other words, adult learners understand and remember new L2 words using L1 translations or their existing semantic structure. Concretely, for mapping between the L2 form and the L1 semantic structure, semantic and syntactic information in the L1 lexical entry is transferred to the L2 lexical entry. The L1 lexical entry contains four types of information, including semantic, syntactic, morphological and formal (phonological and orthographic) information, whereas the L2 lexical entry contains only formal information. As the coactivation of the L2 word and L1 lemma information (semantic and syntactic information)¹⁾ increases, transferred L1 lemma information residing at the L2 lexical entry directly mediates L2 word use. It is the process of form-meaning mapping in L2 acquisition represented by Jiang's semantic transfer hypothesis. As learners are

provided with the contextualized input, L2 specific information may dominate L2 lexical entries rather than L1 lemma information (Jiang, 2000; Jiang, 2002; Jiang, 2004). Besides, Schmitt (2008) also suggests that having constraints on learning L2 at the beginning stage, learners benefit from using L1 in the form-meaning association.

With the arousing discussion about the transfer and the cross-linguistic influence since the 1980s (e.g. Gass & Selinker 1983; Odlin 1989), the form-focused instruction suggests the possibility of L2 vocabulary teaching. Through the contrastive association of L2 vocabulary with the corresponding L1, learners may discern the similarities and differences between L1 and L2 lexical system (Laufer & Girsai, 2008). In terms of L2 acquisition associated with L1, other research suggests that there is the influence of L1 on L2 development concerning the grammar (e.g., Hyltenstam, 1984; Klein, 1986; Klein & Perdue, 1992; Wode, 1977; discussed in Jarvis, 2000). In the perspective of the full or partial transfer from L1, L1 affects learning the L2-specific grammatical concepts to some extent (White, 1985; Vainikka & Young-Scholten, 1996; Hawkins & Chan, 1997; discussed in Sabourin, Stowe & de Haan, 2004).

3. Research Design

This study aimed at closely investigating how three first-year middle school students at a lower level connected and transferred L1 information appropriately to semantic and syntactic properties of English verbs.

3.1 Participant

To investigate the form-meaning mapping between L1 information and English verbs, three low-level middle school students participated in this study (as shown in Table 1). They were supposed to independently study verbs and their inflected forms in preparation for vocabulary tests at school. However, they lacked their own vocabulary learning strategies. At the same time, they did not take any supplementary English education except at school.

First of all, three low-level students were selected based on their English grade at school. In terms of the result of the level test, the amount of vocabulary was different among three participants (as shown in Table 1). As participants were interviewed before the onset of mapping activities, they were unaware of the grammatical function of verbs and had low competence in mapping between forms and meanings. Specifically, only provided with the English form and the Korean translation, participants' L2 lexical entry did not contain any syntactic information of verbs. They could not identify the sentence structure in accordance with lexical features of verbs.

Table 1. First Semester Grade in English and Result of Level Test

Name	English grade (Raw score/whole average)	Level test (score/54)
Participant 1	34 / 77.8	12 / 54
Participant 2	72.35 / 77.8	39 / 54
Participant 3	53 / 64	25 / 54

3.2 Instrument

3.2.1 Tests

3.2.1.1 Level Test

The vocabulary level test was employed for measuring the passive vocabulary size^{e2)} of participants. It was designed to assess participants' semantic knowledge on the essential English vocabulary. Based on the interview conducted during the pilot test, it was found out that participants were incapable of demonstrating the grammatical function of verbs.

In the level test, eighteen items were composed of fifty four words obtained from the basic vocabulary list (proposed by the Ministry of Education, Science and Technology in 2009). Participants took the test for thirty minutes before the mapping activity started. The score of the test was equal to the number of correct answers. Figure 1 shows one item from the vocabulary level test.

Figure 1. Vocabulary Level Test

1. 채우다	
2. 기록하다	_____ enter
3. 만족하다	
4. 걱정하다	_____ believe
5. 맡다	
6. 들어가다	_____ note

3.2.1.2 Achievement Test

After mapping activities, post-tests were given to participants in the fourth, the eighth, the twelfth and the sixteenth period to see if Korean translations

corresponding to English verbs activated the related semantic, syntactic and morphological information. The content of the test included verbs participants had handled during mapping activities. Participants took the test for thirty minutes seven to ten days after the mapping.

In the first part of the test, participants were asked to choose the past tense form appropriate to the English sentence given with its translation (See Appendix). The test of Controlled Productive Knowledge (Laufer & Nation, 1999) was modelled to examine learners' mapping between L1 and past tense forms.

The second part of the test evaluated comprehension of internal arguments combined with verbs (transitive, intransitive and ditransitive verbs) using L1 information. Processing a prime sentence (e.g., The phone rang, I got 5000 won), which was given before questions in the test, activates combinatorial information about the verb³). In the subsequent encounter with other verbs, there is more chance to select the one which takes the same argument structure as the prime sentence (Pickering & Branigan, 1998). The syntactic priming in the present study was composed of prime sentences which respectively involved the different types of activity verb (transitive, intransitive or ditransitive verb). Following the prime sentences, ten verbs were given to participants and asked to match with one of the prime sentences if the verb has the same argument structure. The significant point to note was that the corresponding Korean translation was attached with prime sentences and verbs given in the test (See Appendix).

3.2.2 Vocabulary List

The rudimentary verbs for first-year middle school students⁴) were selected as the material for mapping activities. Participants were provided with one hundred eleven base forms in addition to Korean translations and their past tense. During the lesson

planning, verbs were categorized into transitive, intransitive and ditransitive verbs based on their Korean translation written in the vocabulary list (as shown in Table 2). To investigate the participants' recognition of syntactic properties depending on Korean translations, the vocabulary list for students was not classified by the transitivity. During the mapping activities, students wrote Korean sentences based on the given translations, which represented learners' L1 information.

Table 2. Vocabulary list

<p>Transitive verbs (81 words)</p>	<p>awake(깨우다), bear(남다), beat(치다), *begin(시작하다), behold(바라보다), bend(구부리다), bite(물다), *blow(불다), break(부수다), **bring(가져오다), build(세우다), **buy(사다), cast(던지다), **catch(잡다), choose(선택하다), cut(자르다), deal(with) (다루다), draw(그리다), drive(운전하다), drink(마시다), eat(먹다), find(발견하다), forget(잊다), forgive(용서하다), **get(얻다), **give(주다), hang(걸다), have(가지다), hear(듣다), hide(숨기다), hit(치다), hold(잡다), hurt(다치게 하다), keep(유지하다), know(알다), lay(놓다), *leave(떠나다), **lend(빌려주다), light(비추다), lose(잃다), meet(만나다), mistake(오해하다), overcome(극복하다), **pay(지불하다), put(놓다), read(읽다), rid(of) (없애다), ride(타다), *ring(울리다), *say(말하다), see(보다), seek(찾다), **sell(팔다), **send(보내다), set(놓다), shake(흔들다), *shoot(쏘다), **show(보여주다), **speak(말하다), *speed(속도를 내다), spend(쓰다), spread(퍼다), steal(훔치다), stick(찌르다), *strike(때리다), swing(흔들다), *swear(맹세하다), take(잡다), **teach(가르치다), tear(찢다), **tell(말하다), think(생각하다), **throw(던지다), understand(이해하다), upset(뒤엎다), wet(젖시다), wear(입다), weave(엮다), **write(쓰다), *win(이기다), wind(감다)</p>
<p>Intransitive verbs (30 words)</p>	<p>bet(돈을 걸다), bleed(피 흘리다), burst(터지다), come(오다), cost(비용이 들다), creep(기다), fall(떨어지다), fight(싸우다), fit(꼭 맞다), fly(날다), freeze(얼다), go(가다), grow(자라다), lie(눕다), rise(오르다), run(달리다), sleep(자다), shine(빛나다), sing(노래하다), sink(가라앉다), sit(앉다), slide(미끄러지다), spin(돌다), spring(튀어 오르다), stand(서 있다), stink(악취가 나다), sweep(울다), swim(수영하다), wake(잠에서 깨다), weep(울다)</p>

* The transitive and the intransitive use are acceptable.

** The transitive and the ditransitive use are acceptable.

3.2.3 Mapping

The lexical entry of an English verb contains the semantic, syntactic and morphophonological information. It is conceivable that the transfer of L1 information belonging to the L1 lexical entry initially specifies the semantic and syntactic information of the L2 lexical entry (Jiang, 2004). In this study, the mapping activities were designed based on the semantic transfer hypothesis claimed by Jiang (2004)⁵.

Before connecting L1 information with English verbs, learners were provided with the pronunciation and the spelling of both the base forms and their past tense by the teacher. The semantic and the syntactic information are shared between languages such as the semantic roles and the grammatical functions (Jiang, 2000). However, in terms of the form (pronunciation and spelling), the transfer between Korean and English was restricted because the phonology and the orthographic system of English was distinct from Korean.

To transfer the semantic and the syntactic information of L1 into L2 words, learners' L1 information was represented as the Korean sentences (e.g., 친구의 비밀을 알다) which were developed from Korean translations (e.g., 알다). It was the first step of mapping. After writing their own Korean sentence containing both the semantic and syntactic information, learners linked it to the English form (e.g., know).

As for the connection and coactivation between L1 and L2, it was necessary to transfer the semantic and syntactic information according to L2-specific use. For the past tense form (e.g., knew), learners wrote its meaning (e.g., 알았다) after understanding the past tense based on their L1 information. As L1 information was connected to the past tense aspect (e.g., 친구의 비밀을 알았다), it was transferred into L2-specific use (e.g., I knew my friend's secret). Regarding the transfer of argument structure, the teacher initially explained the syntactic knowledge on

transitive, intransitive and ditransitive verbs. If students did not know the equivalent English word for each item involved in Korean sentences, the teacher indicated the appropriate English word.

3.3 Procedure

Participants engaged in the mapping activities composed of seventeen periods of class for three months. For the first two periods, students made maps of transitive verbs associated with their L1 information through the teacher-initiated or the teacher-student interactive mapping activities. Intransitive verbs were included in the content of the mapping activities in addition to transitive verbs starting from the third period. Provided with ten to fifteen words in each period, learners independently constructed their own visual maps to link between their L1 information and English verbs. During the seventh-period, the ditransitive verbs were introduced through the teacher-student interactive mapping for the first time. In the fourth, eighth, twelfth and sixteenth period, participants took the achievement test based on the verbs they had previously learned. If necessary, each participant was intermittently interviewed mainly about their construction of mapping and the answers in achievement test.

Table 3. Class Schedule

Period	Time (minutes)	Date	Contents
1	40	August, 15 th	<ul style="list-style-type: none"> ○ Answering questionnaires (Personal background and perception of vocabulary learning questionnaire) and a level test ○ Teacher-initiated mapping
2 3		August, 17 th August, 26 th	○ Teacher-initiated and teacher-student interactive mapping

4	30	September, 5 th	Achievement test
5 6 7	25-30	September, 11 th September, 13 th October, 11 th	○ Independent mapping (individually) ○ Teacher-student interactive mapping
8	30	October, 17 th	Achievement test
9 10 11	25-30	October, 19 th October, 20 th October, 25 th	○ Teacher-initiated and teacher-student interactive mapping ○ Independent mapping (in a group)
12	30	October, 30 th	Achievement test
13 14 15	20	November, 1 st November, 4 th November, 6 th	○ Independent mapping (individually and in a group)
16	30	November, 13 th	Achievement test
17		November, 15 th	In-depth interview

3.4 Data Analysis

Learners' output was collected after each period of class. Their mapping was analyzed concerning the lexical properties, especially the semantic and the syntactic properties, and the errors occurred during the transfer of L1 information. While the researcher instructed and observed students' performance, the overall process of the class was videotaped. Afterwards, the transcripts of video recording and field notes were analyzed through the open coding and the focused coding⁶⁾. Additionally, to elicit the participants' ideas related to the previous class, the video-stimulated recall interview and the in-depth interview were conducted.

4. Result

After three participants carried out mapping activities, the relevant information was provided for answering research questions about 1) transfer L1 information (semantic and syntactic information) for mapping between L1 and English verbs; 2) recognition about semantic and syntactic information of each verb.

4.1 Transfer of L1 Information

The purpose of this study was to focus on learners' approaching the meaning and the grammatical function of English verbs. Based on the previous psycholinguistic studies (Jiang, 2000; Jiang, 2002; White, 1985), L1 translation was possibly adopted as the major mechanism to activate and connect L1 semantic and syntactic information with English verbs. Only with the L2 form (spelling and pronunciation), participants were not able to approach and understand both the meaning and the argument structure. To integrate L1 information from the L1 lexical entry to L2, participants manifested their L1 information as the form of Korean sentences. The morphological, orthographic and phonological information related to each verb, which consists L2 lexical entries (Levett, 1993), was suggested to students in English before starting mapping.

Learners were unaware of the meaning and the grammatical usage of English verbs only through the representation of formal information (spelling and pronunciation).⁷⁾ First of all, participants accepted the Korean translation of English verbs and stimulated their L1 knowledge relevant to translations for developing maps. Since lexical entries of English verbs need syntactic specifications (Kaplan & Bresnan, 1982; Pinker, 2009; Jiang, 2004), students were told to write Korean

sentences involving translations (e.g., 공을 치다, 집으로 갔다). As Korean sentences were transferred to L2 appropriate form (e.g., Hit a ball, I went to home) during mapping activities, L1 lexical information specified internal and external arguments of the verbs (e.g., a subject, an object).

The meaning of the verbs can be a major determinant of argument structures (Levin, 1993). After recognizing the Korean translation (e.g., 선택하다, 주다, 열다), participants were able to stimulate their L1 knowledge, including syntactic properties as well as semantic properties (as shown in Table 4). The cognition and interpretation of L1 translations might affect the form-meaning mapping of English verbs afterwards as represented in learners' maps.

Table 4. Example of Korean Sentences

English word (translation)	Korean sentence
find(발견하다)	*보물을 발견하다
come(오다)	친구가 내게 오다
wake(잠에서 깨다)	내가 잠에서 깨다

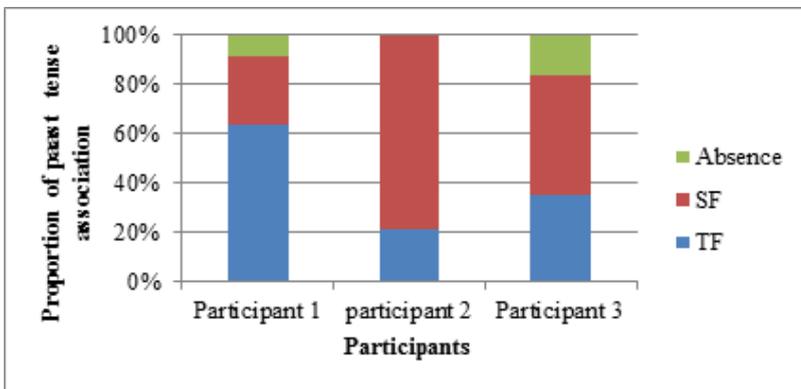
* Participants tended to omit the subject 'I'.

Based on translations, learners produced Korean sentences, including semantic and syntactic properties of L1.⁸⁾ After learners connected Korean sentences (e.g., 나는 친구를 선택하다) to English base forms (e.g., choose), they attempted to write the Korean meaning of the past tense (e.g., 선택했다) in most of their maps (as shown in Figure 2).

They said that the inclusion of the Korean meaning made it easy to understand the morphological form and the function of the past tense (e.g., chose). Considering that learners were not aware of the surface word order of English and the function of the

past tense at first, the teacher needed to explicitly explain the grammatical concepts during the first two periods of teacher-initiated mapping activities. For the rest of periods, learners independently transferred and restructured their Korean sentences on their maps based on the teacher’s explanation.

Figure 2. Association of Past Tense Translation with Past Tense Form



* TF: writing the translation first, SF: writing the spelling first and translation, Absence: no translation but spelling

In terms of the argument structure, learners could correctly transfer the surface structure of Korean sentences to English if the grammatical function of each item included in Korean sentences coincided with English. In this case, the initial mapping between L1 and L2 was attributed to learners’ L1 semantic information intrinsically correlated with syntactic information (as shown in Table 5).

Table 5. Example of Transferring Korean Sentence

choose(선택하다) - 나는 친구를 선택하다 - chose - 선택했다 - I chose my friend
grow(자라다) - 내 키가 자라다 - grew - 자랐다 - I grew up
bring(가져오다) - 친구에게 옷을 가져와서 주다 - brought - 가져왔다 - I brought my friend a clothes

As for Korean sentences involving the adverbial phrases (e.g., 영원히 비밀을 숨기다, 혼자서 울다) to be an adjunct, learners had confused their syntactic position with the object. To activate their L1 knowledge on adverbials, the teacher gave an open-ended question to learners, ‘What is the function of those words (영원히, 혼자서)?’⁹⁾ After learners’ mapping were checked, the teacher specified the proper syntactic position of each adverbial in English sentences.

4.1.1 Transitive Verb

4.1.1.1 Semantic Information

Through the Korean translation, learners recognized both the meaning and the syntactic properties of transitive verbs. In other words, learners recognized the grammatical features of transitive verbs, which take the object to complete their meaning.

For those verbs with transitive and intransitive uses, learners accepted some of them to be transitive. The construction of Korean sentences was semantically meaningful. In the semantics of English, as in Korean, the transitive use of ‘blow(불다)’ and ‘wind(감다)’ means that the object is externally controlled (Levin, 1993). The verb ‘run(달리다)’ in the Korean sentence was transitively used as an idiomatic expression (as shown in Table 6).

Table 6. Transitive Use of Verb

Verb	Korean sentence	English sentence
blow(불다)	민들레씨앗을 불다	I blew dandelion seeds
ring(울리다)	벨소리를 울리다	I rang a bell
run(달리다)	마라톤을 달리다	I ran a marathon

After students transferred their Korean sentences to English-specific use, subjects and objects of Korean sentences agreed with semantic roles (e.g., agent, theme, patient) in the English context. Furthermore, the learners’ L1 information contained the semantic information of complements. To complete the meaning of verbs, the argument structure requires a prepositional phrase as well as an object (as shown in Table 7).

Table 7. Argument Structure of Verb

	Verb	Korean sentence	English sentence
Participant 1	put(놓다)	나는 물건을 책상에 놓다	I put the stuff on a desk (subject-verb-object- [*] PP)
Participant 3	hang(걸다)	나는 생선을 천장에 걸다	I hung a fish on the ceiling (subject-verb-object- [*] PP)

* prepositional phrase

4.1.1.2 Syntactic Information

Transitive verbs (e.g., get) in English subcategorize for a complement, which means that they take an object (e.g., the money, the reward) (Pickering & Branigan, 1998). According to the LFG (Lexical-functional Grammar) representation, the sentence structure involving transitive verbs is represented in (SUBJ, OBJ). The association of arguments (or subcategorization frame) and their grammatical function was rather emphasized in mapping activities. The indication of thematic roles was skipped for analyzing the sentences.

Table 8. Proportion of Korean Sentence Structure¹⁰⁾

	Participant 1	Participant 2	Participant 3
Subject-Object-Verb	37	18	8

Object-Verb*	30	50	56
(Subject)-Object-ADV-Verb (ADV:adverbial phrase or clause)	6	5	9
Erroneous transfer	4	4	4

* *Students had a tendency to leave out the subject 'I'*

As shown in Table 8, students' L1 information contained the meaning of lexical items and the argument structure. As learners wrote Korean sentences based on the translations, objects were involved in completing the meaning of transitive verbs. Since participants were intuitively aware of the configuration of verbal arguments only in Korean, it was necessary to transfer their L1 information appropriately to L2 syntactic structure. Particularly, the syntactic position of objects is different between Korean and English.

For the first two periods of class, the teacher explicitly raised participants' notice and awareness of the difference between L1 and L2. To be specific, the instructor told students that by pointing out objects in Korean sentences, it must be placed after the verb in English (grammatical terms such as the verb and the object were not mentioned). After receiving the grammatical input from the teacher, students could transfer SOV (subject-object-verb) structure into SVO. After three periods of mapping, learners independently recognized the remarked sentence structure in English and the grammatical function of the object. Using L1 translations and transferring their L1 information, students overcame the much of their difficulty in understanding the argument structure of transitive verbs.

Table 9. Transfer of Transitive Verb

get(얻다) - 나는 길에서 떡을 얻다 - got - 얻었다 - I got a cake on the street (SUBJ-VERB-OBJ-ADV)
catch(잡다) - 고양이가 쥐를 잡다 - caught - 잡았다 - A cat caught a mouse(SUB -VERB-OBJ)
sell(팔다) - 나는 시장에서 옷을 판다 - sold - 팔았다 - I sold the clothes at the market(SUB-VERB-OBJ-ADV)

Learners experienced difficulties in distinguishing the syntactic position of the subject from the object while they were transferring their L1 information. ¹¹⁾Without any corrective feedback, learners wrote arguments (the subject and the object) following verbs (e.g., broke my mom a window, ate bread my friend, overcame Hyeon a disease). The overgeneralized syntactic position of the object was applied to the subject. To give a corrective feedback, the teacher asked if learners could recognize the semantic role of the subject in Korean sentences. They stated that the person (by pointing out the subject) performed the action. Subsequently, the teacher clarified that the agent who performs the action comes before the verbs. As presented in Table 8, learners were more likely to drop the subject from their Korean sentences. In this case, they could easily place objects following transitive verbs.

4.1.2 Intransitive Verb

4.1.2.1 Semantic Information

Students intuitively wrote Korean sentences based on the given translations. During the mapping activities, L1 information suggested by students (e.g., 벌레가 튀어 오르다) was transferred into the English sentence structure (e.g., A bug sprang) according to English lexical rules. Furthermore, learners' L1 information of

intransitive verbs was represented as meaningful sentences with locative adjuncts.

Table 10. Intransitive Verb with Locative Adjunct

	Verb	Korean sentence	English sentence
Participant 1	stand(서다)	나는 돌 위에 서있다	I stood on the rock (subject-verb-prepositional phrase)
Participant 2	sit(앉다)	자리에 앉다	I sat on the seat (subject-verb-prepositional phrase)
Participant 3	swear(맹세하다)	나는 신께 맹세하다	I swore to God (subject-verb-prepositional phrase)

Learners considered some of the transitive verbs to be intransitive depending on their Korean translations. Transitive verbs subcategorize for a direct object as a complement. In some cases, alternations possibly change a transitivity of the verb into the form of NP V or NP V PP instead of NP V NP (Levin, 1993, p.14). Therefore, learners' cognition of Korean translations was semantically possible without any grammatical problem.

Table 11. Intransitive Use of Verb

	Verb	Korean sentence	English sentence
Participant 1	drive (운전하다)	하정우가 매니저 대신 운전하다	The assistant drove for Mr. Ha
Participant 3	win (이기다)	내가 이기다	I won

4.1.2.2 Syntactic Information

Students could write Korean sentences based on the translation of intransitive verbs and transfer them to English. As shown in Table 12, Korean sentences written by learners were distinguished from the sentences of transitive verbs. The remarkable

feature was that, except the cases of erroneous interpretation, students did not combine the object with intransitive verbs. In other words, through the translation of intransitive verbs, learners' knowledge of the meaning and the syntactic structure was possibly connected and transferred to English.

Table 12. Proportion of Korean Sentence Structure

	Participant 1	Participant 2	Participant 3
Subject-Verb	13	15	15
Subject-ADV-Verb (ADV:adverbial phrase or clause)	10	5	4
ADV-Verb* (ADV:adverbial phrase or clause)	4	9	10
Erroneous transfer	3	1	1

* Students had a tendency to leave out the subject 'I'

Students associated almost 50% of their Korean sentences with the adverbial phrase or clause. Regarding the adverbial as a complement of the verb (e.g., on the bed, with my mom), learners' L1 information could be associated with English intransitive verb. Compared to the adverbial complements, adverbials were less involved in students' Korean sentences to modify the verb. Furthermore, students could distinguish the adverbial complements from the adjuncts using their L1 information. When the teacher asked them by indicating two different adverbials within students' Korean sentences, they said that the adjunct (e.g., 예일 리가 나를 위해) modify the verb.

Table 13. Result of Transferring Intransitive Verb

Fight(싸우다) - 친구와 싸우다 - fought(싸웠다) - I fought with my friend
Fall(떨어지다) - 절벽에서 떨어지다 - fell(떨어졌다) - I fell from the cliff
Lie(눕다) - 내가 침대에 눕다 - lay(누웠다) - I lay on the bed
Go(가다) - 은이가 집에 가다 - went(갔다) - Eun went home
Sing(노래하다) - 에일 리가 나를 위해 노래하다 - sang(노래했다) - Ailee sang for me

The surface order of Korean sentences conformed to English sentence structure. Nevertheless, learners were confused with the syntactic position of the subject by overgeneralizing the syntactic position of the object until the fourth or fifth period.¹²⁾ Similar to the case of transitive verbs, they wrote the subject after intransitive verbs (e.g., shone the sun, rose the price) at first. For sentences including adverbials, learners asked the syntactic position of adverbials in English. The teacher suggested that most of the adverbials used in students' Korean sentences should be placed after intransitive verbs in English sentences (as shown in Table 12). However, for some adjectives or adverbs modifying the constituent (e.g., 싫어하는, 영원히), the teacher needed to specify the appropriate syntactic position during the feedback.

4.1.3 Ditransitive Verb

4.1.3.1 Semantic Information

For ditransitive verbs, two complements, a direct and an indirect object, are required so as to complete the meaning of the verb (Aarts, 2008). During the mapping activities, students were not provided with the list of verbs categorized by ditransitive

Table 14. Transferred Ditransitive Verb

	Korean sentence	English sentence
teach(가르치다)	내가 아이들에게 말을 가르치다	I taught children the language
show(보여주다)	나는 여자선생님에게 팔을 보여주다	I showed the teacher my arm
give(주다)	물을 주다	I gave water
lend(빌려주다)	옷을 빌려주다	I lent my clothes

verbs. Except two sentences for ‘teach’ and ‘show’, students did not add the complement which indicates the recipient to their Korean sentences (as shown in Table 14). When the meaning of ditransitive verbs were emphasized correlated with the implication of giving (e.g., 사주다, 보내주다, 빌려주다, 가져와주다), students realized the necessity of an indirect object to complete the meaning of the verb.

4.1.3.2 Syntactic Information

Ditransitive verbs usually take two objects (e.g., a direct object and an indirect object) or a single object combined with to/for and noun phrase (Palmer, 2014). The sentences containing verbs such as tell, show, give and lend are accepted without the indirect object if the verb is idiomatic or ambiguous (Randall, 1987). Also, according to the grammatical rules in Korean, the indirect object combined with English ditransitive verbs corresponds to the complement. In English, ditransitive verbs take the double object frame; the indirect object is considered to be an obligatory adverbial in Korean.

Notwithstanding the syntactic rules in both languages, learners were more likely to omit the indirect object (the adverbial in Korean) in their Korean sentences (as shown in Table 15). After readjusting learners’ semantic structure of ditransitive verbs, they suggested the indirect object to be combined with ditransitive verbs. The teacher provided students with the initial input about the argument structure of

ditransitive verbs (subject, verb, indirect object, direct object).

Table 15. Readjusted Ditransitive Verb

	Korean sentence	Readjusted English sentence
bring(가져오다)	책을 가져오다	I brought my friend a book
lend(빌려주다)	옷을 빌려주다	I lent my grandmother my clothes
send(보내다)	친구를 일터에 보내다	I sent my friend a workplace

There were some cases that learners' L1 syntactic information was congruent with the complement of ditransitive verbs. For 'teach', 'show' and 'send', participant 1 and participant 3 added an indirect and a direct object to Korean sentences during their independent mapping (as shown in Table 14 and 15).

4.2 Erroneous Transfer of L1 Information

Learners' interpretation of the Korean translation was discrepant from the meaning of English words. Since the translation denotes the homonym in Korean (the same pronunciation but the different meaning), students accepted its meaning which was discrepant from the English word (as shown in Table 16). Accordingly, they linked and transferred the inconsistent semantic structure to English. As the semantic information is internally related to the syntactic information, the sentence structure was incorrectly specified by the wrong interpretation. To readjust the transfer of incorrect information, the teacher mentioned the proper denotation by giving a Korean sentence as an example. It can be called semantic restructuring that corrects the semantic knowledge of a word possessed by learners (Laufer & Girsai, 2008). These are the examples related to the wrong interpretation:

Table 16. Wrong Interpretation of Translation¹³⁾

	Korean sentences	English sentence
lay(놓다)	마음을 놓다	I laid my mind
spend(쓰다)	시를 쓰다	I spent a poet
stick(찌르다)	냄새가 코를 찌르다	The smell stunk my nose
wind(감다)	머리를 감다	I wound my hair
rise(오르다)	산을 오르다	I rose the mountain

Learners sometimes made mistakes to analyze their L1 syntactic information properly (as shown in Table 17). To transfer L1 information into English-specific usage, it was necessary to understand the grammatical function and role of constituents involved in Korean sentences. However, their L1 lexical knowledge in relation to the semantic and the syntactic structure, was intrinsic to produce meaningful sentences. Accordingly, there was a constraint on explicitly analyzing and connecting their L1 information in English. In the example of Participant 2 (as shown in Table 17), the Korean sentence derived from the translation was grammatical but turned out to be ungrammatical after being transferred into English.

Table 17. Wrong Interpretation of Translation

	Korean sentence(L1 information)	English sentence(Transferred information)
Participant 1	하늘을 날다	I flew the sky
Participant 2	물을 적시다	I wet water
Participant 3	바닥을 기다	I crept the floor

For the first two to three periods, learners frequently made syntactic errors rather than semantic errors in relation to the transfer of their L1 information. The major cause was the difference in the surface structure between Korean and English

sentences. To be specific, learners could link the semantic information of Korean sentences with the given words during mapping activities. In terms of the word order, they had to recognize and transfer the argument structure as L2-specific syntactic input was provided by the teacher (as discussed in 4.1 Transfer of L1 Information). Even though learners independently transferred their L1 information from the fourth period, the teacher's feedback was required to verify the result of the mapping. As presented in Table 18, students needed to gain the contextualized knowledge on the different modifiers. Also, as in the example of Participant 2, the lexical category and the function of the word (쓰레기에서) in Korean are not congruent to English.

Table 18. Wrong Interpretation of Translation

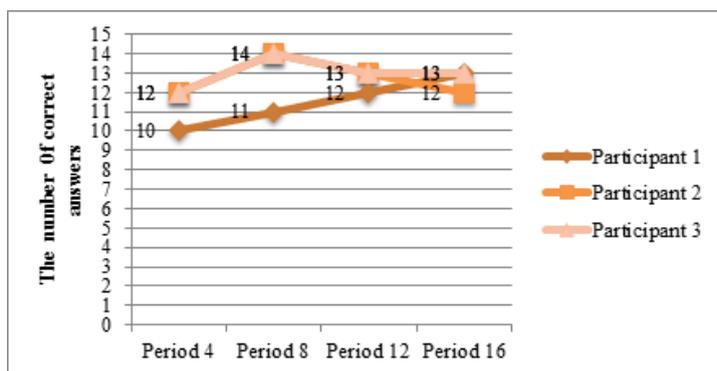
	Korean sentence(L1 information)	English sentence(Transferred information)
Participant 1	내가 물에 가라앉다	I sank under the water
Participant 2	쓰레기에서 악취가 나다	The trash stank
Participant 3	수업 후 내용을 잊다	I forgot the content after class

4.3 Lexical access

The purpose of the achievement tests was to see if semantic and syntactic information of Korean translations were attached and mapped to L2 lexical forms (in this study, the spelling of English verbs). In the receptive use of L2, the recognition of L2 vocabulary activates the equivalent L1 translation associated with semantic, syntactic, and morphological information in the L1 lexical entry. Consequently, the activated L1 information support learners' understanding the form of L2 words (Jiang, 2000).

In the first part of the achievement test, learners could choose the appropriate English form to the given context based on the translation of the English sentence. Although participants were never given time to memorize the spellings of verbs with their equivalent translation, they attained the form-meaning association between the L1 translation and the L2 form after mapping activities. Figure 3 presents the number of correct answers out of fifteen items for each participant.

Figure 3. Grade of Achievement Tests: Part 1

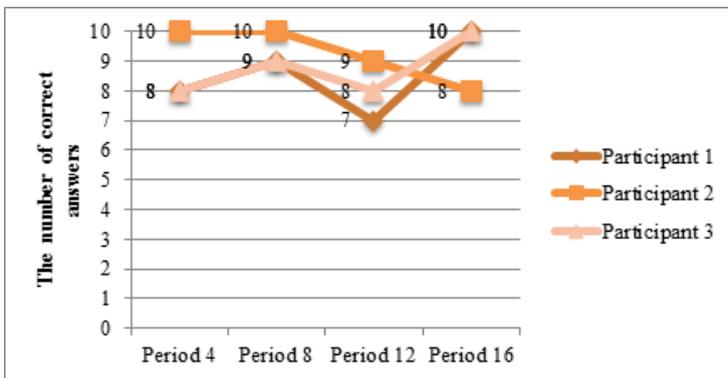


In terms of the second part, learners' L1 information related to the translation, especially syntactic information, facilitated the syntactic priming. At first, two participants, Participant 1 and Participant 3, could not understand how to answer the questions using prime sentences. As the teacher showed the mapping for each prime sentence, learners tried to consciously conduct mapping between their L1 information and verbs. In the fourth achievement test, participants could not spontaneously distinguish the syntactic difference of ditransitive verbs from transitive and intransitive verbs. To support their comprehension, the teacher cast the open-ended question about how many arguments each verb takes. Since then, the students figured out the ditransitive verb with two objects. Figure 4 presents the number of correct

answers out of ten items for each participant.

The notable point was that learners inwardly formulated Korean sentences associated with the given verbs in order to find out their argument structure. Through adopting and connecting their L1 information with verbs, they might judge their argument structure and match with one of the prime sentences.¹⁴⁾ To reproduce the sentences involving the given verbs, they did not adhere to the syntactic structure of prime sentences. The problem concerning the connection between L1 information and English verbs was that the retention of L2-specific syntactic information transferred from L1 decreased after one week.

Figure 4. Grade of Achievement Tests: Part 2



5. Conclusion

To establish the form-meaning link, it was necessary to not only activate L1 information through L1 translations but also properly transfer it into L2-specific usage. Each lexical entry of verbs in learners' L1 might contain an argument

structure associated with grammatical functions. Grammatical functions as the universal feature are associated with lexical items and syntactic structures (Neidle, 1996). The association of arguments in students' L1 information was possibly transferred to the English surface structure through mapping activities. The primary advantage of the mapping activities was that learners acknowledged the contrasting lexical features between Korean and English as well as among English verbs. At the same time, they could readjust their L1 knowledge appropriately to L2 words.

Nevertheless, instantly adopting L1 translations confined students' comprehension on the lexical features of verbs. Typically, learners could not realize the alternation of the transitivity only through Korean translations. Also, without providing the contextualized input, the direct transfer from L1 to L2 induced lexical errors. Sometimes, learners overgeneralized and applied the lexical pattern of transitive verbs to intransitive verbs. In this case, the feedback from the teacher corrects overgeneralization errors (Ambridge et al., 2006; Ellis, 2015). For the form-meaning mapping of beginning students, the teacher's role was indispensable for providing the initial input and the feedback on learners' maps.

The present study was designed to investigate the learners' awareness of semantic and syntactic features of verbs using L1 information. Since the number of participants was limited in this study, more cases of lower-level students might support the effect of form-meaning mapping using L1 information. The future research would look into the possibility of adopting L1 translations to acquire the various uses of verbs. More diverse transfer between L1 and L2 words can be investigated if different translations related to one word are provided for learners.

Notes

- 1) Jiang proposes the semantic transfer hypothesis depending on Levelt's model of lexical entry (1993).

- 2) The format of the vocabulary level test follows Laufer's model (1998).
- 3) The combinatorial information indicates the possible combination of the verb with other linguistic units (argument structure).
- 4) The vocabulary list was extracted from Middle School English Reading 1 published by Highlight (2006). The verbs were collected from middle school English text books.
- 5) The detailed presentation and the explanation are provided in Jung(2016).
- 6) In the first cycle of coding, the open coding, data are divided into discrete parts and checked for similarities and differences. Next, through focused coding, the most frequent or salient parts are developed into categories (Strauss & Corbin, 1998; Charmaz, 2006).
- 7) Learners were inspected for their prior knowledge on the meaning and the grammatical usage of English verbs during the pilot study.
- 8) Once learners are able to recognize the meaning, argument structures as the syntactic properties of the words can be mostly predicted from the meaning of words (Levin, 1995, p.11-13).
- 9) Hyeon, one participant, answered that they adds the more meaning to the verbs. The teacher additionally stated that they are not obligatory different from the object.
- 10) The sentences written during teacher-involved mapping were exempted from counting. Those verbs which are possibly used transitively and intransitively were counted if students accepted as a transitive verb.
- 11) Three participants made mistakes in the syntactic position of the subject. The number of mistakes got less as they constructed more maps (more details in Jung, 2016, p.95-98).
- 12) Every period of the mapping activity, the number of mistakes was different for each participant (more details in Jung, 2016, p.95-98).
- 13) The mistakes were not generally committed by all three participants. The detailed description for each individual is discussed in p. 88-98 (Jung, 2016).
- 14) More detailed description is recorded in Jung (2016) from p.104 to p.106.

Works Cited

- Ambridge, Ben., Julian Pine, Caroline F. Rowland, and Chris R. Young. "The Effect of Verb Semantic Class and Verb Frequency (entrenchment) on Children's and Adults' Graded Judgements of Argument Structure Overgeneralization Errors." *Cognition* 106 (2008): 87-129. Print.
- Barcroft, Joe. "Semantic and Structural Elaboration in L2 Lexical Acquisition." *Language Learning* 52 (2002): 323-63. Print.
- Blum, Shoshana and E. A. Levenston. "Universals of Lexical Simplification." *Language Learning* 28 (1978): 399-415.
- Bresnan, Joan. *A Realistic Transformational Grammar*. Austin, TX: U of Texas P, 1977. Print.
- Charmaz, Kathy. *Constructing Grounded Theory: A practical guide through qualitative research*. London: Sage, 2006. Print.
- Clark, Eve V. *The Lexicon in Acquisition*. New York: Cambridge UP, 1995. Print.
- Ellis, Nick. "Vocabulary Acquisition: Word Structure, Collocation, Word-class, a Meaning." *Vocabulary: Description, Acquisition and Pedagogy*. Ed. N. Schmitt and M. McCarthy. Cambridge: Cambridge UP, 1977, 122-39. Print.
- _____. "Implicit and Explicit Language Learning: Their Dynamic Interface and Complexity." *Implicit and Explicit Learning of Languages*. Ed. Patrick Rebuschat. Amsterdam: Benjamins, 2015, 3-23. Print.
- Gass, Susan M., and Larry Selinker. "Language Transfer in Language Learning" *Issues in Second Language Research*. Rowley, MA: Newbury, 1983. Print.
- Hall, Christopher J. "The Automatic Cognate Form Assumption: Evidence for the Parasitic Model of Vocabulary Acquisition." *International Review of Applied Linguistics* 40 (2002): 69-87. Print.

- Hawkins, Roger, and Cecilia Yuet-hung Chan. "The Partial Availability of Universal Grammar in Second Language Acquisition: The 'Failed Functional Features Hypothesis'." *Second Language Research* 13.3 (1997): 187-226. Print.
- Hyltenstam, Kenneth. "The Use of Typological Markedness Conditions as Predictors in Second Language Acquisition: The Case of Pronominal Copies in Relative Clauses." *Second Languages: A Crosslinguistic Perspective*. Ed. R. Andersen. Rowley, MA: Newbury, 1984. Print.
- Jarvis, Scott. "Methodological Rigor in the Study of Transfer: Identifying L1 Influence in the Interlanguage Lexicon" *Language Learning* 50 (2000): 245-309. Print.
- Jiang, Nan. "Lexical Representation and Development in a Second Language." *Applied Linguistics* 21 (2000): 47-77. Print.
- _____. "Form-meaning Mapping in Vocabulary Acquisition in a Second Language." *Studies in Second Language Acquisition* 24 (2002): 617-38. Print.
- _____. "Semantic Transfer and its Implications for Vocabulary Teaching in a Second Language." *The Modern Language Journal* 88 (2004): 416-32. Print
- Kaplan, Ronald M., and Joan Bresnan. "Lexical-functional Grammar: A Formal System for Grammatical Representation." *Formal Issues in Lexical-Functional Grammar* (1982): 29-130. Print
- Kempen, Gerard and Edward Hoenkamp. "An Incremental Procedural Grammar for Sentence Formulation." *Cognitive Science* 11 (1987): 201-58. Print.
- _____, and Pieter Huijbers. "The Lexicalization Process in Sentence Production and Naming: Indirect Election of Words." *Cognition* 14 (1983): 185-209. Print.
- Klein, Wolfgang. *Second Language Acquisition*. Cambridge: Cambridge UP, 1986. Print.
- _____, and Clive Perdue. *Utterance Structure: Developing Grammars Again*.

- Amsterdam: Benjamins, 1992. Print.
- Kroll, Judith F., and Erika Stewart. "Category Interference in Translation and Picture Naming: Evidence for Asymmetric Connections between Bilingual Memory Representations." *Journal of Memory and Language* 33 (1994): 149-74. Print.
- _____, and Gretchen Sunderman. "Cognitive Processes in Second Language Learners and Bilinguals: The Development of Lexical and Conceptual presentations." *The Handbook of Second Language Acquisition*. Ed. C. J. Doughty and M. H. Long. New York: Wiley-Blackwell, 2003. 104-29. Print.
- Laufer, Batia and Helen Osimo. "Facilitating Long-term Retention of Vocabulary: The Second-hand Cloze." *System* 19.3 (1991): 217-24. Print.
- _____. "The Development of Passive and Active Vocabulary in a Second Language: Same or Different?" *Applied Linguistics* 19.2 (1998): 255-71. Print.
- _____, and Nany Girsai. "Form-focused Instruction in Second Language Vocabulary Learning: A Case for Contrastive Analysis and Translation." *Applied Linguistics* 29.4 (2008): 694-716. Print
- _____, and Paul Nation. "A Vocabulary-size Test of Controlled Productive Ability." *Language Testing* 16.1 (1999): 33-51. Print.
- Levelt, Willem J. M. *Speaking: From Intention to Articulation*. Cambridge, MA: MIT P, 1993. Print.
- _____. "The Ability to Speak: From Intentions to Spoken Words." *European Review* 3.1 (1995): 13-23. Print.
- _____, et al. "The Time Course of Lexical Access in Speech Production: A Study of Picture Naming." *Psychological review* 98.1 (1991): 122. Print
- Levin, Beth. *English Verb Classes and Alternations: A Preliminary Investigation*. Chicago, IL: U of Chicago P, 1993. Print.

- Neidle, Carol. "Lexical Functional Grammar." *Proceedings of the ESSLLI* (1996): 107-28. Print.
- Nunan, David. *Second Language Teaching and Learning*. KY: Heinle & Heinle, 1999. Print.
- Odlin, Terence. *Language Transfer: Cross-linguistic Influence in Language Learning*. London: Cambridge UP, 1989. Print.
- Palmer, Frank Robert. *The English Verb*. New York: Routledge, 2014. Print.
- Pickering, Martin J., and Holly P. Branigan. "The Representation of Verbs: Evidence from Syntactic Priming in Language Production." *Journal of Memory and Language* 39.4 (1998): 633-51. Print
- Pinker, Steven. *Language Learnability and Language Development, with New Commentary by the Author*. Cambridge, MA: Harvard UP, 2009. Print
- _____. *Learnability and Cognition: The Acquisition of Argument Structure*. Cambridge, MA: MIT P, 2013. Print.
- Randall, Janet H. *Indirect Positive Evidence: Overturning Overgeneralizations in Language Acquisition*. Bloomington, IN: Indiana U Linguistics Club, 1987. Print.
- Ringbom, Hakan. "The Influence of Other Languages on the Vocabulary of Foreign Language Learner." *Errors Analysis, Contrastive Analysis and Interlanguage*. Ed. G. Nickel and D. Nehls. Heidelberg: Gross Verlag, 1982. 85-96. Print.
- _____. "Borrowing and Lexical Transfer." *Applied Linguistics* 4.3 (1983): 207-12. Print.
- Roelofs, Ardi, Antje S. Meyer, and Willem JM Levelt. "A Case for the Lemma/Lexeme Distinction in Models of Speaking: Comment on Caramazza and Miozzo." *Cognition* 69.2 (1998): 219-30. Print.

- Sabourin, Laura, Laurie A. Stowe, and Ger J. De Haan. "Transfer Effects in Learning a Second Language Grammatical Gender System." *Second Language Research* 22.1 (2006): 1-29. Print.
- Schmidt, Richard. "Awareness and Second Language Acquisition." *Annual Review of Applied Linguistics* 13 (1992): 206-26. Print.
- _____. "Attention." *Cognition and Second Language Instruction*. Ed. P. Robinson. New York: Cambridge UP, 2001, 3-33. Print.
- Schmitt, Norbert. "Vocabulary Learning Strategies." *Vocabulary: Description, Acquisition and Pedagogy* (1997): 199-227. Print.
- _____. "Review Article: Instructed Second Language Vocabulary Learning." *Language Teaching Research* 12.3 (2008): 329-63. Print.
- Strauss, Anselm, and Juliet Corbin. *Basics of Qualitative Research: Procedures and Techniques for Developing Grounded Theory*. Thousand Oaks, CA: Sage, 1998. Print.
- Vainikka, Anne, and Martha Young-Scholten. "Gradual Development of L2 Phrase Structure." *Second Language Research* 12.1 (1996): 7-39. Print.
- Vermeer, Anne. "Breadth and Depth of Vocabulary in Relation to L1/L2 Acquisition and Frequency of Input." *Applied Psycholinguistics* 22.2 (2001): 217-34. Print.
- White, Lydia. "The 'Pro-drop' Parameter in Adult Second Language Acquisition." *Language Learning* 35.1 (1985): 47-61. Print.
- Wode, Henning. "Four Early Stages in the Development of LI Negation." *Journal of Child Language* 4 (1977): 87-102. Print.

국문초록

의미적, 통사적 요소의 언어 간 전이 : 한국어와 영어 동사 사이의 형식-의미 구조도를 이용한

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본 연구는 모국어 정보에서, 특히 의미적, 통사적 요소를 영어의 용법으로 전이하는 과정에 초점이 있다. 학습자들의 모국어 정보가 영어 동사에 입력되면서, 제2외국어의 형식이 학습자들의 모국어 어휘에서 전이된 의미적, 통사적 정보와 결합하는 현상이 발생한다. 한국어와 영어 동사 간 형식-의미 구조 형성과정을 알아보기 위해, 영어 어휘의 모국어 번역을 구조도 활동 중에 학습자들에게 제시했다. 그에 따라, 학습자들은 모국어 번역을 쉽게 받아들이고 번역을 이용하여 다른 종류의 영어 동사와 관련된 모국어 지식을 활성화시켰다. 구조도 활동의 결과를 통하여 모국어 의미적, 통사적 정보 전이과정을 제시할 수 있었다. 실험 참여자들은 동사와 보어의 문장 안에서 의미 역할을 이해하기 위해 모국어 정보를 활용할 수 있었다. 하지만 문장 안에서 보어의 위치를 이해하고 모국어 정보를 영어의 용법에 맞게 전이하는데 시간이 소요되었다. 정보를 전이하는 과정에서, 모국어 정보가 잘못된 영향을 끼치기도 했다. 사후 시험결과, 학습자들은 대부분의 경우 모국어 정보를 동사의 의미적, 통사적 요소와 연결할 수 있었다. 교육학적 영향으로, 올바른 수정과 피드백은 모국어와 제 2외국어 형식-의미 구조 형성을 개선한다고 말할 수 있다.

주제어 : 모국어 번역, 의미적 통사적 정보, 모국어 정보의 전이, 형식-의미 구조도, 타 동사/자동사/수여동사

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