

# The Acquisition of English Locative Constructions by Native Speakers of Korean: Pragmatic Competence or Syntactic Incompetence?

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## 1. INTRODUCTION

To understand a verb's meaning and use it correctly, a second language (L2) speaker must learn in what syntactic structures the verb is allowed. Across languages, there are some consistent verb semantics-syntax correspondences, and knowing these regularities can help an L2 learner assign correct syntactic structures to verbs. For example, if a learner understands that mental verbs such as "think," "know," and "hope" take a sentential argument, then he or she can use this mental verb-sentential complement "linking rule" to infer that a verb like "wonder" will also take a sentential complement (Kim et al., 1999).

However, there are more complex types of verbs that are subject to greater argument structure variation, which pose difficulty for many L2 learners. These verbs may appear in different syntactic structures but have the same arguments, or may appear in the same syntactic structures but have different arguments. Locative verbs in English are one such kind of verbs which are subject to great variation. They denote a relationship between a thematic entity (Figure) and a location (Ground). For example, the locative verb *load* links an object to a place it can be moved and can participate in alternation as follows:

- 1) Mary *loaded* the truck (ground) with hay (figure).
- 2) Mary *loaded* the hay (figure) onto the truck (ground).

Research shows that there are cross-linguistic differences (and similarities) in the syntax of locative verbs, and this paper will address how successfully native speakers of Korean acquire the syntax of locative constructions in English in the face of these variations. Pinker (1989) argued that there are two important types of rules that are associated with the acquisition of the L2 syntax of locative verbs. These rules—broad-range rules and narrow-range rules—illuminate the distinction between the acquisition of the knowledge of 1) broad constructional meaning and 2) narrow constraints distinguishing the various syntactic subclasses of locative verbs.

Korean L2 learners' success in learning the syntax of English locative verbs, therefore, depends on how fully they have apprehended these rules. Studies show that while many Korean learners of English have a firm grasp of the broad-range rules, even advanced Korean-English bilinguals have limited knowledge of narrow-range rules that govern more language-specific properties and define *subclasses* of locative verbs. Some researchers

including Bley-Vroman and Joo (2001) and Joo (2003) have interpreted Korean speakers' difficulty with narrow constraints as an indication that Universal Grammar (from here on referred to as UG) is not available in L2 acquisition; however, others like Schwartz et al. (2003) have challenged this claim, asserting that the difficulty is a sign of pragmatic competence rather than of UG inaccessibility.

The goals of this paper are, therefore, as follows: 1) to demonstrate how the Korean syntax of locative verbs differs from its English counterpart; 2) to discuss how Pinker's broad and narrow rules guide native Korean speakers' syntactic interpretation of English locative verbs; and lastly, 3) to present and evaluate the different theories accounting for Korean L2 learners' difficulty acquiring narrow-range rules and making subtle distinctions among various argument structures of locative verbs.

## 2. ENGLISH LOCATIVE CONSTRUCTIONS

The difficulty of learning locative verbs in English is apparent if we just consider the number of classes into which they can be categorized. Some locative verbs are "Contentoriented," indicating the content's (Figure's) *manner of motion*, while others are "Containeroriented," indicating the *change of state*, or end state, of the container (Ground) rather than the manner in which the Figure is affected. Linguists often refer to the former as Figure verbs and the latter as Ground verbs. Figure verbs and Ground verbs can be further classified into two groups, depending on which argument(s) can appear in the direct object position and whether they can be alternators or not. This classification results in the following four syntactic subclasses of locative verbs:

- (1) **Non-alternating Figure verbs** (e.g., *pour, dribble, spit, spill*) allow the theme argument (the Figure) but not the goal argument (the Ground), to be the direct object:
- |   |                                |
|---|--------------------------------|
| a. Josh <i>poured</i> milk into the jar.  | Figure-Ground ("Figure frame") |
| b. *Josh <i>poured</i> the jar with milk. | *Ground-Figure                 |

- (2) **Non-alternating Ground verbs** (e.g., *fill, cover, soak, decorate*) allow the goal argument (the Ground), but not the theme argument (the Figure), to be the direct object:

- |   |                                |
|---|--------------------------------|
| a. Sarah <i>filled</i> the pitcher with water.  | Ground-Figure ("Ground frame") |
| b. *Sarah <i>filled</i> water into the pitcher. | *Figure-Ground                 |

- (3) **Alternating Figure verbs** (e.g., *spray, plaster, pile*) allow *either* the Figure *or* the Ground to be the direct object:

- |  |              |
|--|--------------|
| a. Laura <i>sprayed</i> paint onto the wall. | Figure frame |
| b. Laura <i>sprayed</i> the wall with paint. | Ground frame |

- (4) **Alternating Ground verbs** (e.g., *load, stuff, paint*) allow *either* the Ground *or* the Figure to be the direct object:

- a. Mary *loaded* the truck with hay.                      Ground frame  
 b. Mary *loaded* hay onto the truck.                      Figure frame

L2 learners will benefit from learning the above syntax-semantics correspondences, i.e., from recognizing, for instance, that those verbs describing a manner of motion are Figure verbs and therefore allow the Figure to be in the object argument. Knowing that a verb—*spill*, for example—shares the semantic property of “manner of motion” with the verb *pour* will be necessary for determining that its syntax, too, constitutes the Figure frame.

### 3. KOREAN LOCATIVE CONSTRUCTIONS

Kim et al. (1999) reported, however, that cross-linguistic differences exist in the syntax of locative verbs, which suggests that the aforementioned syntax-semantic correspondences may not be universal, weakening the reliability of learning strategies based on universal syntax-semantics mapping. In Korean, some locative verb classes show the same syntactic structures as their English counterparts, while other classes are either “syntactically more liberal” or “syntactically more restricted” than their English counterparts. The following examples illustrate some of the differences between the two languages:

(1) Change-of-state verbs like *fill* are Non-alternating Ground verbs in English; however, they are Alternators in Korean:

- |                                      |           |            |                 |
|--------------------------------------|-----------|------------|-----------------|
| b. Yumi-ka                           | mul-ul    | cup-ey     | chaywu-ess-ta.  |
| Yumi-NOM                             | water-ACC | cup-LOC    | fill-past-Decl. |
| *“Yumi filled water into the glass.” |           |            | *Figure frame   |
| b. Yumi-ka                           | cup-ul    | mul-lo     | chaywu-ess-ta.  |
| Yumi-NOM                             | cup-LOC   | water-with | fill-past-Decl. |
| “Yumi filled the glass with water.”  |           |            | Ground frame    |

(2) Some verbs that are Alternators in English (e.g., *pile*) are Non-alternating Figure verbs in Korean:

- |                                      |              |              |                 |
|--------------------------------------|--------------|--------------|-----------------|
| b. Yumi-ka                           | chaek-ul     | chaeksang-ey | ssa-ass-ta.     |
| Yumi-NOM                             | book-ACC     | table-LOC    | pile-past-Decl. |
| “Yumi piled the books on the table.” |              |              | Figure frame    |
| b. *Yumi-ka                          | chaeksang-ul | chaek-elo    | ssa-ass-ta.     |
| Yumi-NOM                             | desk-ACC     | books-with   | pile-past-Decl. |
| “Yumi piled the table with books.”   |              |              | Ground frame    |

The following examples show that some instances of locative constructions are identical in Korean and English:

(3) Change-of-state verbs like *pour* are Non-alternating Figure verbs in both English and Korean:

- |            |        |        |             |
|------------|--------|--------|-------------|
| b. Yumi-ka | mul-ul | cup-ey | pwu-ess-ta. |
|------------|--------|--------|-------------|

Yumi-NOM	water-ACC	glass-LOC	pour-past-Decl.
“Yumi poured water into the glass.”			Figure frame
b. *Yumi-ka	cup- <i>ul</i>	mul- <i>lo</i>	pwu-ess-ta.
Yumi-NOM	cup-ACC	water-with	pour-past-Decl.
*“Yumi poured the cup with water.”			*Ground frame

(4) Some verbs that are Alternators in English (e.g., *paint*) are also Alternators in Korean:

b. Yumi-ka	kirum- <i>ul</i>	pyek- <i>ey</i>	chilha-ess-ta.
Yumi-NOM	oil-ACC	wall-LOC	paint-past-Decl.
“Yumi painted the oil onto the wall.”			Figure frame
b. Yumi-ka	pyek- <i>ul</i>	kirum- <i>elo</i>	chilha-ess-ta.
Yumi-NOM	wall-ACC	oil-with	paint-past-Decl.
“Yumi painted the wall with the oil.”			Ground frame

The following table, adapted from Choi & Lakshmanan (2002), succinctly captures which locative constructions are allowed in each language (✓ = allowed):

	English		Korean	
	Alternating	Non-alternating	Alternating	Non-alternating
Figure	✓	✓	✓	✓
Ground		✓		

#### 4. PINKER’S BROAD-RANGE AND NARROW-RANGE RULES:

##### 4.1 Broad-range rules and broad conflation classes and the Object Holism Effect

Pinker (1989) distinguished between two aspects of the acquisition of locative verb constructions in L2: 1) the broad constructional meaning of “broad conflation classes” and 2) more subtle, selective constraints distinguishing “narrow conflation classes” or “conflation subclasses” of locative verbs. Learners first acquire the broad constructional meaning of locative verbs based on so-called broad-range rules. The classes of verbs to which they apply are called broad conflation classes and include the two aforementioned semantic categories, 1) manner-of motion (Figure) verbs and 2) change-of-state (Ground) verbs.

Broad-range rules provide the necessary criteria by which learners determine whether a verb can participate in the locative alternation. That is, for a verb to be an alternator, it must, as a minimum necessary, though not *sufficient* (more on this below), requirement, belong to a broad conflation class. If a learner knows that a verb specifies *both* a type of motion and a change of state, then it must be an alternator. For example, the verb *stuff* is an alternator because it can appear in both the *into/onto* form (which indicates that some motion has taken place) and in the *with* form (which indicates that an object has undergone a change of state as a result of some motion). Conversely, if a verb specifies *either* a type of motion *or* a change

of state but not the other, it is not an alternator. For example, *fill* is a non-alternating verb because it describes an end state (“she *filled* the glass *with* water”) but not a type of motion (\*“she *filled* water *into* the glass”); thus, it can appear with the preposition *with*, but not with *into/onto*, and belongs to the broad conflation class *manner of motion verbs*.

Therefore, broad-range rules, which define the two broad conflation classes, aid L2 learners in understanding just the general properties of verbs (manner of motion or change of state?) and in determining whether they satisfy the minimum requirement that allows them to participate in the locative alternation. These rules have been reported to be universal; that is, locative verbs in all languages have the two broad semantic constructions. Investigating this universality, Kim et al. (1999) made the following important generalization that seems to apply to all of the languages they examined:

- *Universal syntax-semantics correspondence*: Verbs with manner-of-motion meaning allow the Figure frame.

More specifically, Kim (as cited in Schwartz, 2003) stated that “the class of non-alternating Figure verbs like *pour* is syntactically identical across all of the languages” (p. 251) that she surveyed in that:

- *Pour-class manner-of-motion verbs* allow *only* the Figure frame.

The absence of cross-linguistic variation in the *pour* subclass is evidenced by the fact that children are more prone to make errors mapping change-of-state meaning to Figure frame (e.g., \*“John *filled* water *into* the glass”) than mapping manner-of-motion meaning to Ground frame (e.g., \*“John *poured* the glass *with* water”), suggesting that the syntax-semantics correspondence involving manner-of-motion meaning will be easier to learn because of its universality.

An important concept related to Pinker’s broad-range rules is the object holism effect. This describes the phenomenon in which the object of Ground verbs is perceived as completely affected. Compare, for example, the following sentences:

- (1) Mary *loaded* the truck ground with hay figure. Ground frame
- (2) Mary *loaded* hay figure onto the truck ground. Figure frame

Both native speakers of English and Korean consider the direct object, “the truck,” in (1) to be *completely* loaded, whereas they do not show this holism effect when interpreting (2). Joo (2003) reported that even though the holistic interpretation in Korean locative verbs is much weaker than that in English locative verbs, Korean L2 learners still show the native-like bias for holism when interpreting English locative constructions. In part 1 of her experiment, a forced-choice picture-description task, each subject was presented with an English sentence, either in the Figure frame or the Ground frame, and was instructed to choose between two illustrations, one in which the ground argument was completely affected (“Ground-oriented picture”) and another in which the ground argument was only partially affected (“Figure-oriented picture”). The results of this task showed that both native English speakers and Korean L2 learners had knowledge of the broad-range rules and the holism effect: they 1) chose Ground pictures for sentences containing change-of-state verbs and Figure pictures sentences containing manner-of-motion verbs and 2) chose the sentences whose direct object was the ground argument when presented with a picture whose ground was completely affected.

By specifying what kind of verbs are allowed in the Ground frame, the holism effect can aid L2 learners in predicting the syntax of some arguments:

- (3) a. Irv loaded hay into the wagon.  
       Irv sprayed water onto the flowers.  
       Irv threw the cat into the room.  
       Irv pushed the car onto the road.
- b. Irv loaded the wagon with hay.  
       Irv sprayed water onto the flowers.  
       \*Irv threw the room with the cat.  
       \*Irv pushed the road with the car. (Pinker, 1989, p. 49)

These examples show that in the Ground frame, where the goal argument is the direct object, only those verbs whose goal is completely affected by the theme may undergo the locative alternation. The last two sentences in 3b are ungrammatical because the verbs *threw* and *pushed* entail actions that “cannot result in complete filling or depletion” (p. 50). Since the holism effect does not apply to these verbs in the Ground frame, they are not eligible to participate in the locative alternation.

#### 4.2 Narrow-range rules and narrow conflation classes and learners’ difficulty with them

It has been established earlier in this paper that for a verb to participate in the locative alternation, it must necessarily belong to a broad conflation class (manner of motion or change of state). This, however, is not a *sufficient* criterion. It must additionally belong to one of the *narrow* conflation classes—Non-alternating Figure, Non-alternating Ground, and Alternating verbs—which are defined by the narrow range rules. These rules distinguish the various subgroups within the broad conflation classes, outlined above in section 2 (“English locative constructions”).

Studies show that while Korean L2 learners of English acquire knowledge of the universal broad-range constraints and the holism effect easily, they display limited knowledge of the more language-specific properties of locative verbs that are associated with the narrow-range rules. For example, in order to test how successfully Korean L2 learners acquire the argument structure of English locative verbs, compared to native speakers of English, Joo (2003) employed a forced-choice sentence selection task in addition to the forced-choice picture-description task that was described above—and concluded that knowledge of narrow-ranges rules is much more difficult, if not impossible, to attain for Korean L2 learners.

In this task, the subjects were presented with two sentences—ground- and figure-constructions—and were required to choose the one that better described a given picture, or choose “neither.” Half the pictures used in the experiment showed completely affected arguments and the other half showed partially affected arguments. The dependent variable was the frequency with which the subjects chose ground-sentence responses (“degree/means of groundness”). If a subject chose a ground-construction sentence, he or she received one point; if a subject chose either of the remaining options, a figure-construction sentence or “neither,” no points were given.

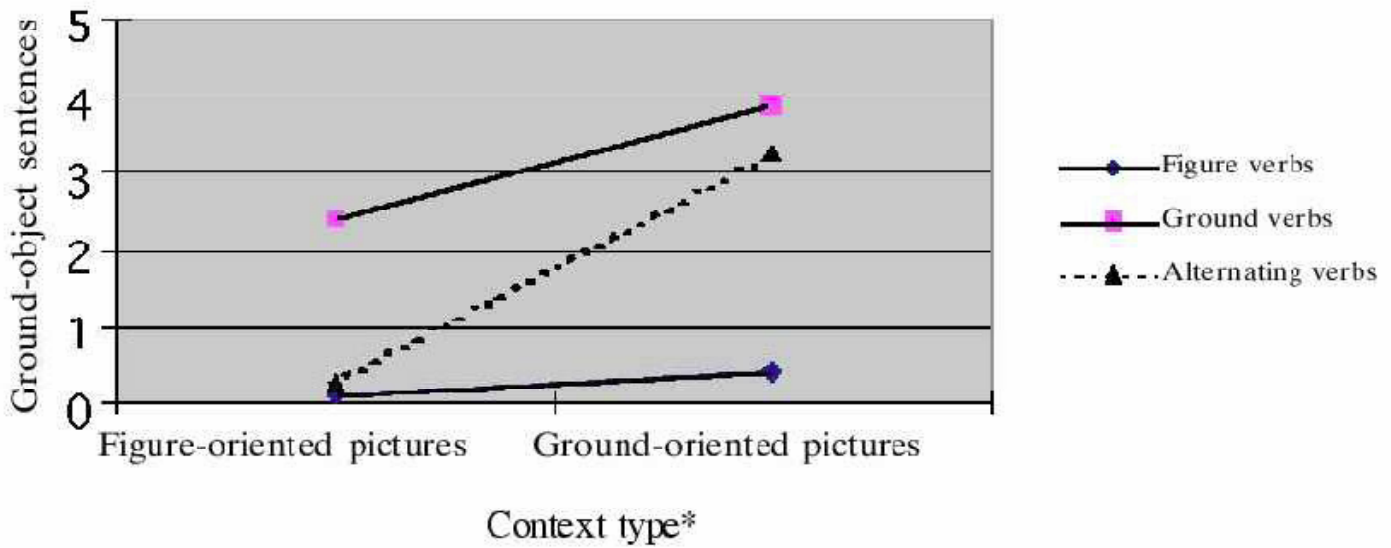


Figure 1. Native speakers of English

The results showed that in the native English group (Figure 1), the means of groundness in the Ground verb class was significantly higher (3.88) than those for the other two verb classes, Alternating and Figure (3.24 and 0.41, respectively). Moreover, for both context types, Figure-oriented pictures and Ground-oriented pictures, the means of groundness in the Figure verb class were very similar—virtually zero. In other words, regardless of which type of picture they were shown, the native English speakers rejected all the Ground-object frames of the figure class verbs because they were ungrammatical. For example, they rejected sentences like “John poured the glass with water” whether they were shown a picture of a full glass or a half-filled glass.

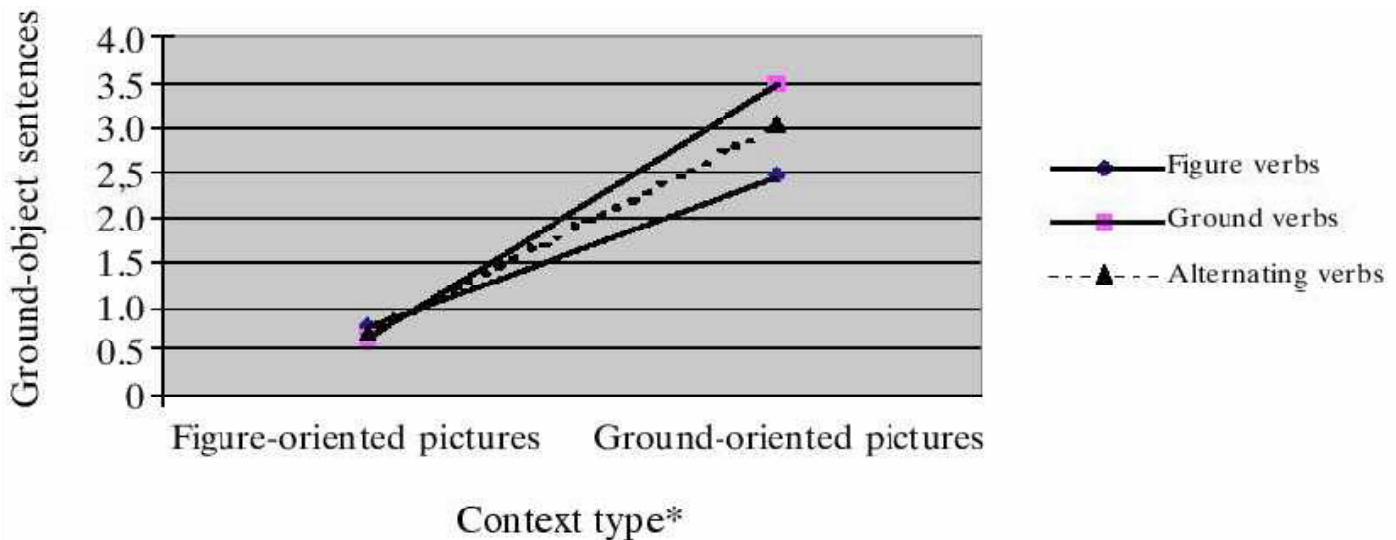


Figure 2. Korean L2 learners of English

In contrast, in the L2 learners group (Figure 2), the means of groundness in the Figure verb class differed on the basis of context type, i.e., it was significantly higher for Ground-oriented pictures than for Figure-oriented pictures. For example, they were more likely to accept sentences like “John poured the glass with water” when presented with Ground-oriented pictures than when presented with Figure-oriented pictures. This shows that they had not yet learned that verbs like *pour* do not allow the Ground frame in any case. Moreover, the patterns of groundness were similar across all three verb classes in this group: in each verb class, the means of groundness was low in figure contexts and high in ground contexts. In other words, the L2 learners chose Ground-object sentences when presented with Ground-oriented pictures and Figure-object sentences when presented with Figure-oriented pictures, showing that they were heavily influenced by the holism effect and had not yet acquired knowledge of narrow class constraints.

Consider the following example: When Figure pictures were presented with a partially affected ground argument (about half the time), the native English speakers chose the grammatical Ground frame sentences or chose neither, showing a strong dislike for using Non-alternating Ground verbs in the Figure frame, especially *fill* and *cover*. However, the L2 learners were strongly influenced by the holism effect, which led them to choose ungrammatical Figure frame sentences. Here is what I mean:

e.g., picture presented:



(Partially affected ground)

Sentences to choose from:

(a) John filled water into the glass.

(Korean speakers choose this ungrammatical Figure frame, succumbing to the holism effect.)

(b) John filled the glass with water.

(English speakers choose this grammatical Ground frame, overcoming the holism effect.)

(c) Neither.

(English speakers rejected both sentences.)

Joo's results would predict that in this example, the native English group would choose (b), a Ground frame sentence which favors the holistic interpretation, *even though* the picture shown presents only a *partially* affected argument (a half-filled glass) because (a) is ungrammatical, or they would choose (c) neither, showing sensitivity to both the holism effect and to the constraints on the *fill* verb class. In contrast, the Korean speakers would choose the Figure frame sentence (a), which is ungrammatical in English but grammatical in Korean. L2 learners are highly sensitive to the holism effect; seeing that the glass in the picture is not wholly affected, they would choose the sentence that does not entail holism *but* is ungrammatical. This inappropriate extension of the holism effect, which results in their acceptance of the ungrammatical locative construction, suggests that they have not acquired full knowledge of what language-specific constraints are placed on narrow conflation classes of locative verbs.

## 5. THEORIES ACCOUNTING FOR KOREAN L2 LEARNERS' DIFFICULTY ACQUIRING NARROW CLASS CONSTRAINTS

### 5.1 Inaccessibility of UG in L2 acquisition: Syntactic incompetence

Bley-Vroman and Joo (2001) stated that the Korean L2 learners' lack of knowledge of the narrow constraints is due to their inability to "determine which verbs cannot occur in a construction" (p. 210)—a negative evidence problem. Children, on the other hand, are able to acquire native-like knowledge of these narrow constraints in the absence of negative evidence— "evidence about which word strings are ungrammatical" (Pinker, 1989, p. 6)—because Universal Grammar is set up to deal with it. Therefore, L2 learners' inability to make fine discriminations among various narrow conflation classes is due to their failure to overcome this negative evidence problem, which in turn is evidence that UG is inaccessible in L2 acquisition. This lack of negative input, as discussed in the previous section, causes L2 learners to overgeneralize argument structures of locative verbs via the holism effect and use ground-object constructions for figure verbs and figure-object constructions for ground verbs. It is true that children often make similar argument-structure overgeneralization errors. Pinker (1989) pointed out that they, too, apply broad-range rules or have systematic misconceptions about the meanings of some verbs. However, unlike L2 learners, they are able to *retreat* from this overgeneralization. Joo (2003) attributed L2 learners' insufficient knowledge of the narrow constraints and failure to recover from overgeneralization to their

incomplete use of a learning mechanism called semantic structure hypothesis testing. According to Pinker (as cited in Joo, 2003, p. 325), children use the following three mechanisms in learning lexical meaning:

- 1) Event-category labeling ('linking verb meanings onto the mental representation of concepts');
- 2) Semantic structure hypothesis testing ('adjusting any incorrect hypothesis by observing how the verb is used across situations'); and
- 3) Syntactic cueing of semantic structures ('learning verb meanings from argument structures').

But unlike children who can exploit all three mechanisms equally well, L2 learners are not given as many opportunities to observe how the various argument structures of locative verbs are used in real-life situations. Most of their verb input comes from "discourse context in reading or listening passages" (p. 325). Unfortunately, ESL materials do not provide adequate input on verbs and their syntactic structures, and, as Juffs (1998) pointed out, over-represent those classes of verbs that provide "survival skills" in communication (e.g., experiencer psych verbs and unergatives) while under-representing others (e.g., transitive causative/inchoative- change-of-state and movement verbs and stimulus psych verbs) with which learners have particular difficulty.

Because of this poverty of input, L2 learners do not get to use as much the second learning mechanism, semantic structure hypothesis testing, which requires observation of the use of a verb in many different real-life situations and then figuring out its argument structure(s) from its meaning. Instead, they rely heavily on the third mechanism, syntactic cueing of semantic structures, through being exposed to sources such as example sentences in textbooks and dictionaries. For L2 learners, therefore, the acquisition of syntactic argument structures seems to precede that of semantic structures (Joo, 2003). That is, they seem to learn argument structures of locative verbs based on explicit syntactic information rather than from a semantic understanding. Unfortunately, their acquisition of these syntactic argument structures is based on limited sources—e.g., ESL textbooks rather than real-world input—which do not provide sufficient input to guide them to make correct syntax-semantics correspondences when it comes to narrow conflation classes.

Bley-Vroman and Joo (2001) also pointed out that although L2 learners do attain some knowledge of narrow constraints by relying on "what has been heard or what has not been heard" (p. 216), they are unable to apply them to *novel* verbs, showing reduced linguistic productivity. For example, in Bley-Vroman and Yoshinaga's (as cited in Bley-Vroman & Joo, 2001) study testing the grammaticality judgment of native English speakers and Korean L2 learners, they found that the latter responded differently when they were presented with real verbs than when they were presented with made-up verbs. Unlike the native English speakers, they failed to apply the narrow constraints to novel verbs of the same semantic classes.

This led the researchers to conclude that it is "difficult or impossible" for L2 learners to attain "principled knowledge of narrow classes," which distinguish verbs like *fill* from

verbs like *pour*. Because UG—which allows native speakers to “act on principle” and show early syntactic productivity— is inaccessible in L2 acquisition, L2 learners must learn the narrow constraints in an “unprincipled” way, i.e., by association (relating certain syntactic constructions to certain meanings) based on (limited) input exposure and explicit instruction. The hypothesis that L2 learners’ knowledge of narrow rules is not principled is supported by the fact that learners make correct grammatical judgments about only some verbs in specific contexts (i.e., those which they have been explicitly taught) in a forced grammaticality judgment test but not in the more meaning-oriented picture-choice task described above.

## 5.2 Coercion: Pragmatic competence

Recall that L2 learners’ limited knowledge of narrow constraints is associated with their inability to recover from their overgeneralization of the holism effect. Bley-Vroman and Joo (2001) argued that this is due to the unavailability of UG in L2 acquisition. Most researchers do acknowledge that L2 learners’ acquisition of narrow constraints is not native-like; however, Schwartz et al. (2003) consider their holism-triggered narrow range errors to be caused by a phenomenon known as contextual coercion, which is evident even in L1 acquisition, and propose a convincing alternative to the theory of UG inaccessibility L2 acquisition.

According to this account, L2 learners “contextually coerce verbs beyond their lexical specifications” (p. 257). Consider the following simple examples of coercion:

- (1) a. The light flashed (until dawn).
  - b. John is resembling his father \*(more and more).
- (Jackendoff, as cited in Schwartz, 2003)

Notice that in (1a), the meaning of the verb “flashed” changes when the Adverb phrase “until dawn” is inserted. When we consider the meaning of the verb “flash” in isolation or in the context of a very simple structure like “The light flashed,” we visualize a single sudden burst of brightness. However, the addition of “until dawn” coerces the hearer to extend its meaning to “repeatedly flashed.” In other circumstances, contextual coercion can even change the grammaticality status of a sentence, as in (1b).

Schwartz et al. (2003) asserted that contextual coercion can apply to L2 learners’ acquisition and interpretation of locative constructions in English. They argued that in part 2 of Bley-Vroman and Joo’s (2001) study, the L2 learners simply extended the verb meanings to describe the pictures that showed completely affected goal arguments (Ground-oriented pictures). This in no way entails that UG is inaccessible in L2 acquisition. They also pointed out that coercion can occur in the L1 acquisition of locative constructions by children, for whom UG is available:

- (2) Coercion in child language acquisition:
  - a. E, 2;11: Pour, pour, pour. Mommy, I poured you. [Waving empty container near M.]

M: You poured me?

E: Yeah, with water.

In light of such examples, some researchers have asserted that the holism effect, rather than deriving from UG-constrained syntax-semantics linking, is a mere pragmatic effect. For example, Rappaport and Levin (as cited in Pinker, 1989) claimed that it is simply “an epiphenomenon of the fact that the verb specifies a change of state” (p. 78). They pointed out that the sentence “The vandal sprayed the statue with paint” would remain grammatical and strictly true even if only a dab of paint was sprayed on the statue. Jackendoff (as cited in Schwartz, 2003) also drew attention to the context-dependent nature of the holism effect, noting that its strength depends on the type of predicate:

- (3) a. Bill sprayed/smeared/dabbed splashed the wall with paint (for ten minutes), but it still wasn't covered.  
 b. ?Bill loaded the truck with dirt for an hour, but there was still room for more.  
 c. ?Bill crammed/packed the crack with cement (for five minutes), but it still wasn't full.

(as cited in Schwartz, 2003, p. 249)

Moreover, Lee (1997) suggested that the holistic interpretation in Korean (weaker than that in English) becomes strong with the insertion of intensifying adverbs such as *wancenhi* or *katukhi* (“completely”).

In English, too, the insertion of a word like “full” can significantly improve a sentence like (4a). This is possible because the modification has extended the hearer's semantic representation of the verb *pour* in (3b) via contextual coercion.

- (4) a. \*John poured the glass with water.  
 b. John poured the glass *full* with water. (Pinker, 1989)

These examples are strong evidence in support of the hypothesis that holism is not “a strictly *semantic* inference” (Schwartz, 2003, p. 249). The strength of its effect is variable across different sentence contexts, dependent on such factors as verb type and whether or not an intensifying adverb is present. Yet it manifests itself in only one type of syntactic structure, the Ground frame, and is part of the broad constructional meaning aspect of locative verb knowledge, which is governed by broad-range rules deemed to be universal and thus easily grasped by L2 learners. Therefore, more research is needed to verify whether holism is simply a matter of implicature. Understanding its nature will be crucial to determining whether or not, and/or the extent to which, UG is accessible in the acquisition of the L2 syntax of locative verbs.

## 6. CONCLUSION

The syntax of locative constructions has sparked great interest among linguists because it involves various cognitive-linguistic concepts including changing states, moving objects, and being affected (Bley-Vroman & Joo, 2001). The acquisition of these concepts is reflected in a learner's ability to correctly associate themes with specific syntactic structures. Pinker stated that knowledge of both broad constructional meaning and narrow-range constraints is necessary to attain a native-like understanding of the syntax-semantics correspondences in locative constructions in L2.

This paper addressed specifically Korean speakers' acquisition of the broad-range and narrow-range rules and discussed relevant research. Studies show that while Korean learners of English have knowledge of universal broad constraints, they have trouble distinguishing the language-particular narrow conflation classes, which are defined by narrow-range rules. Their failure to readily acquire the narrow constraints has been associated with an inappropriate extension of the holism effect. Some researchers have attributed this to UG inaccessibility in L2 acquisition, while others have challenged this claim, arguing that the overgeneralization of holism may be due to a pragmatic phenomenon known as contextual coercion. Until research can verify that holism is not a mere pragmatic effect, it seems that Schwartz et al. are correct to challenge the hypothesis that adult L2 acquisition is not UG-constrained.

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