

Korean EFL Learners' Underpassivization and Overpassivization: Psych Verbs and Unaccusatives

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The present paper addresses Korean EFL learners' acquisition of psych-verb and unaccusative constructions from a processing point of view. Korean learners' interlanguage psych-verb constructions and unaccusative constructions are marked by underpassivization and overpassivization, respectively. While both kinds of errors are observed in Korean learners' data, the processing account of language acquisition predicts that learners will commit underpassivization errors more frequently than overpassivization errors because passivization requires more processing. In order to see if the acquisition of psych-verb and unaccusative constructions is affected by the processing complexity of passivization, the present study compared learners' performance on psych-verb and unaccusative constructions. Ninety six university students performed a timed grammaticality judgment task on the two types of constructions. The comparison of the learner performances between psych-verb and unaccusative constructions revealed that the learners were more accurate with psych-verb constructions than with unaccusative constructions. The learners' accuracy with psych-verb constructions increased faster than unaccusative constructions, with the increase of the overall proficiency. The findings suggest that while processibility might be a major issue for low-level learners, there are other factors such as L1 transfer that exert a pervasive influence on the acquisition of psych-verb and unaccusative constructions.

Key Words: overpassivization, underpassivization, psych verb, unaccusative, processibility

I. Introduction

It is widely known that English passive voice is acquired later than English active voice. First language acquisition research has reported that native English children's acquisition of the passive voice is delayed until a late stage of their language development (de Villiers & de Villiers, 1973; Pienemann, 2005), while they begin to produce active constructions as soon as they start to make two-constituent utterances (Radford, 1990). Pienemann (2005) attributed the late development of passive construction

in the child's language to the processing difficulty due to the complexity of syntactic operation as well as semantic-syntactic mapping problems.

If the processibility also matters in the acquisition of English as a foreign language, the passive construction, which costs more processing than its active counterpart, will be more difficult to acquire. As a result, learners will make errors in comprehending and producing passives, prefer the active voice to the passive voice, and incorrectly use the active voice in the context where passives are obligatory. This underuse of passives, or underpassivization, is well documented in the studies on Korean ELF learners' errors with the psychological predicate (psych verb hereafter) in the obligatory context (Hahn, 2009a; Hwang, 1996). Researchers have found that Korean EFL learners tend to use active voice in constructing sentences with a psychological predicate (e.g., *The thief surprised to find the policeman).

Meanwhile, learners have also been found to make errors in the opposite direction, that is, overpassivization. Korean learners of English have been reported to overuse passives in the context where they should use the active voice (Hahn, 2009a; Hahn, 2009b; Hwang, 1999; Kim, 2003; Lee, 2009). Further, L2 learners' overpassivization has been largely limited to one specific type of verb: unaccusatives (e.g., *The thief was disappeared into the building).

The fact that Korean learners underpassivize one group of verbs and overpassivize another group of verbs suggests that there exist factors other than processibility that are involved in L2 acquisition. Still, if processibility plays a dominant role in guiding L2 acquisition, it should be hypothesized that linguistic aspects that demand less processing should be acquired earlier than those that demand more processing. Its natural corollaries would be: (a) learners will make more underpassivization errors than overpassivization errors and (b) learners will thus tend to make more errors in psych-verb constructions than in unaccusatives, if other conditions are equal. While quite a few studies have attempted to explore the nature of Korean learners' problems with unaccusatives and psych verbs, none of them have addressed these two areas together from a processing point of view. Further, no research has directly compared the two conflicting problem areas observed in a single set of subjects. This paper aims to explore whether L2 learners' interlanguage development is constrained by the cognitive principle of processibility, by comparing

Korean EFL learners' acquisition of psych-verb and unaccusative constructions.

II. Theoretical background

1. Acquisition of the psych-verb construction

Psych-verbs are verbs that express the psychological state. In English, psych verbs such as *surprise*, *depress*, *please*, and *embarrass* are transitive verbs that take two NP arguments: the Theme (or Stimulus) and the Experiencer. When they are used in the active voice, the order is Theme-Verb-Experiencer as in (1). So when one wants to start a sentence with the Experiencer, which is often the case, the sentence should be passivized as in (2).

(1) The news surprised the people.
 Theme Verb Experiencer

(2) The people were surprised at the news.
 Experiencer be - V- en prep. Theme

By contrast, Korean psych-verbs are intransitive in their base forms that take the Experiencer as the subject as in (3). Subjectivizing the non-animate NP as in (4) is atypical although not completely unacceptable, partly because animacy plays the key role in deciding the subjecthood in the Korean language (Klaiman, 1988).

(3) Saramdeul-i news-ei nolla-ssta.
 People at the news experience surprise-PAST
 Experiencer Theme V

(4) ?News-ka saramteul-ul nolla-kehai-ssta.
 The news people experience surprise-cause-PAST
 Theme Experiencer V-CAUSE

This cross-linguistic difference in transitivity has been claimed to be partially responsible for Korean learners' ungrammatical psych-verb

constructions. Researchers found that Korean learners frequently use an active psych-verb form in the sentence where the Experiencer is the subject (Hahn, 2009; Hwang, 2000), as in (5) and (6).

(5) *The people surprised at the news.

(6) *The boy disappointed because he got a bad grade.

Another source of the Korean learners' underpassivization in English psych-verb constructions might come from the processing complexity involved in passivization. Passives are known to be one of the late-developing features in native-speaking English children's language. Their acquisition of passives is known to be delayed until they reach the age of 4 or 5 (de Villiers & de Villiers, 1973; Pienemann, 2005). For one thing, passives are not in conformity with the NVN structure. As children initially resort to the NVN strategy which directly maps the Agent-Verb-Patient relation onto the NVN sequence (Bever, 1970), they have difficulties with matching the Patient role with the sentence subject (Pienemann, 2005). Further, an additional insertion of the auxiliary *be* and the attachment of the participial morpheme *-en* are added to the total processing cost.

As the psych-verb construction with the Experiencer in the subject position is a subcategory of passive construction, the processing cost of the passivization applies to psych-verb constructions as well. So learners who haven't acquired passives will have problems with psych-verb constructions as well. The close relationship between psych-verb constructions and passives are also attested by Hahn's (2009a) study. In her comparison of Korean EFL learners' production of passives, psych-verb constructions, and unaccusatives, Hahn found that the learners' performance on passives were correlated with their performance on psych-verb constructions, but not with their performances on constructions with other verbs.

In sum, Korean learners have to deal with dual problems in acquiring the psych-verb construction—the difference in transitivity between English and Korean psych-verbs on one hand, and the processing complexity due to passivization on the other hand.

2. Acquisition of the unaccusative construction

Another major problem area that involves passivization is the unaccusative construction (Hahn, 2009; Hwang, 1999; Lee, 2009; Yip, 1989; Zobl, 1989). Unaccusative verbs are a subcategory of intransitive verbs. Intransitives, which are one-argument verbs, can be classified into two categories—unergatives and unaccusatives. Unlike unergative verbs, whose subjects take the thematic role of the Agent with volition (e.g., Mary swam in the pool for an hour), unaccusative verbs are intransitive verbs whose subjects are not Agents but Themes (e.g., The door closed). In terms of meaning, unaccusatives are restricted to the verbs of occurrence such as *occur*, *happen*, *appear*, *disappear*, and *arise* and change-of-state verbs such as *open*, *close*, *break*, *melt*, *freeze*, and *dry*. Most of the change-of-state unaccusatives alternate between unaccusatives and transitives, and thus have a passive counterpart as exemplified below.

- (7) Unaccusative: The door opened.
 Transitive: The man opened the door.
 Passive: The door was opened.

On the contrary, verbs of occurrence are non-alternating unaccusatives. They do not allow either transitive or passive counterparts.

- (8) Unaccusative: An accident occurred last night.
 Transitive: *The man occurred an accident.
 Passive: *An accident was occurred.

Korean unaccusatives are realized in different ways from their English counterparts. While English unaccusatives are intransitive and thus take a root form, Korean equivalents of English unaccusatives are realized in various forms. For some Korean unaccusatives, intransitives take the root forms, requiring an overt causative morpheme such as ‘-i’ to make causative/transitive construction.

- (9) nok-ta (‘melt’) vs nok-i-ta (‘melt’)
 Unaccusative Transitive

For other unaccusatives, transitives take the root forms, requiring an overt unaccusative morpheme such as ‘-i’ and ‘-ci’ to make unaccusative/intransitive construction.

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|-----------------------|-----|----------------------|
| (10) tat-ta (‘close’) | vs. | tat-i-ta (‘close’) |
| kkay-ta (‘break’) | vs. | kkay-ci-ta (‘break’) |
| Transitive | | Unaccusative |

On the other hand, a third group of unaccusatives, most of which are verbs of occurrence, do not have a causative counterpart. These non-alternating Korean unaccusatives typically have a morpheme –ci or –na as shown in (11).

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|--------------------------|-----|------------|
| (11) ile-na-ta (‘occur’) | vs. | ----- |
| sara-ci-ta (‘disappear’) | vs. | ----- |
| Unaccusative | | Transitive |

Second language researchers have found that L2 learners of English tend to overpassivize unaccusatives. Some found that learners incorrectly passivized non-alternating unaccusatives (Hahn, 2009a; Kim, 2003; Yip, 1989). Others reported that L2 learners preferred the passivized version of alternating unaccusatives to their intransitive counterparts even when the context required non-passivized, intransitive verbs (Lee, 2009). Still others found that L2 learners rejected correct intransitive forms and accepted incorrect passivized sentences (Hahn, 2009b; Hwang, 1999).

Hahn (2009a) found that Korean EFL learners’ overpassivization errors are confined to unaccusatives only, and not to other intransitives. This suggests that learners do not randomly passivize any intransitive verbs, and that overpassivization is a phenomenon that characterizes Korean learners’ interlanguage unaccusatives.

Some researchers attributed the overpassivization of unaccusatives to L1 transfer. Yip (1989) proposed that Chinese learners’ incorrect passivization of English unaccusatives is due to the topic prominence of the Chinese language. In the Korean EFL context, researchers attempted to account for learners’ overpassivization in terms of transfer triggered by L1 unaccusative morphemes. Hwang (2006) claimed that Korean learners

take unaccusative morpheme ‘-i’ as in *yel-i-ta* (‘open’) for a passive morpheme, which misguides them to passivize English unaccusatives. Hahn, on the other hand, suggested that Korean learners might take the unaccusative morpheme ‘-ci’ as in *sara-ci-ta* (‘disappear’) and *ttele-ci-ta* (‘fall’) for a passive morpheme. As can be seen in (12), ‘-ci’ is also used as a passive morpheme in Korean.

- (12) Transitive: *mantul-ta* (‘make’)
 Passive: *mantule-ci-ta* (‘be made’)

Hahn suggested that the passiveness associated with the L1 unaccusative morpheme works as a trigger for the passivization of their English unaccusatives. It was further claimed that Korean passives are in fact a subcategory of unaccusatives and they have developed from the same historical root (Kang, 1996). If we accept this proposal, overpassivization is a phenomenon that reflects a deeper-level category transfer that goes beyond the seemingly superficial transfer.

The discussions so far suggest that Korean learners’ overpassivization of unaccusatives is the function of their L1. However, from a processing point of view, passivization charges extra processing cost, and therefore should be discouraged for economy’s sake (Pienemann, 2005). In this respect, the acquisition of unaccusatives involves a tension between the processibility dimension and the L1 transfer dimension, which is not the case with psych-verb constructions. In the case of psych-verb constructions, underpassivization is motivated by both economy of processing as well as L1 transfer. In the case of unaccusative constructions, however, overpassivization is motivated by L1 transfer but should be discouraged from a processing point of view. Thus we might predict that Korean learners of English will be induced to make more errors with psych-verbs than with unaccusatives.

3. Automatization and language processing

Processing passives, whether productively or receptively, charges extra processing cost. However, there is still possibility that for advanced learners, processing passive constructions has been automatized so that it might not impose additional processing burdens on the learner. According

to information processing theories such as skill acquisition theory (Bialystok & Sharwood-Smith, 1985; McLaughlin, 1987), learning is defined as “the gradual transformation of performance from controlled to automatic” (Ortega, 2009, p. 84). Language processing at the early stage of learning is controlled (McLaughlin, 1987) and thus demands focused attention. As the controlled processing is transformed to automatic processing, or proceduralized, through repeated exposures and practicing, the automatized processes require only “small effort and take up few cognitive resources” (Ortega, 2009, p. 83). Therefore, as a learner gets the automatic control of passives, errors in psych-verb constructions due to passivization will also reduce. As the learner’s passivization is automatized, psych-verb constructions will become easier to process. Accordingly, learners will make less and less underpassivization errors with psych-verb constructions.

4. Word familiarity

Another factor that might affect the learners’ acquisition of psych-verb and unaccusative constructions is the learners’ familiarity with or exposure to individual psych verbs or unaccusatives. In a study of Korean learners’ production of psych-verb and unaccusative constructions, Hahn (2009a) found that the learners who underpassivized psych-verb constructions varied in their accuracy depending on what verbs were used in their production. For example, they correctly passivized sentences including the verb *embarrass* with 83.3% accuracy, while they passivized sentences including the verb *shock* with only 20% accuracy. Likewise, while the learners correctly used intransitives in producing sentences that included *fall* with 96.2% accuracy, they used intransitives only 25% of the time when the sentence included *disappear*. The discrepancies observed across individual verbs suggest that the learners’ performance might be affected by their familiarity with individual verbs. Therefore it needs to be studied if the learners’ difficulty with the acquisition of the psych-verb and unaccusative constructions might in fact be related more with the difficulty of individual verbs rather than the psych-verb or the unaccusative as a category.

5. Implicit knowledge and explicit knowledge

Second language researchers generally agree that there are two kinds of knowledge of language—implicit and explicit. Krashen (1977, 1981) claimed that acquired knowledge should be distinguished from learned knowledge. He argued that the former is intuitive knowledge of language that can be spontaneously employed in real-time conversation, while the latter is conscious knowledge of language that the users can draw on only when they are not under time pressure. He further stated that there is no interface between the two types of knowledge, and that one should acquire, not learn, a language in order to become fluent in everyday interpersonal communication skills.

Currently, the distinction is better captured in terms of implicit and explicit knowledge (Bialystok, 1979; DeKeyser, 2003; Hulstijn, 2002). Similar to acquired knowledge, implicit knowledge refers to intuitive knowledge that automatically applies to spontaneous language use without conscious efforts. On the other hand, explicit knowledge refers to the learner's conscious knowledge of language that takes time to draw on. As the study on sentence processing is about real-time processing, it attempts to tap into the learner's spontaneous, implicit knowledge rather than learned or explicit knowledge. Thus in a study where processing is a main issue, the time factor should be included in the research design.

According to Ellis (2005), different kinds of knowledge are elicited depending on the types of tasks the learners are asked to perform. In his large-scale psychometric study of implicit and explicit knowledge, Ellis compared the learners' performances in different contexts: oral narratives, elicited imitation, two types of grammaticality judgment (GJ)—timed and untimed—and metalinguistic explanation. He found that the subjects' performance on the timed GJ task showed a strong correlation with their performances on production tasks such as oral narrative and imitation, loading onto one factor, while their performances on untimed GJ and metalinguistic explanation loaded onto another factor. He concluded that tasks such as timed GJ and oral narration tap into the learner's implicit knowledge while tasks such as untimed GJ and metalinguistic explanation tap into the learners' explicit knowledge. The present study will thus assume that the learners' performance on timed GJ

reflects their implicit knowledge and indirectly demonstrates their performance in oral production.

Based on our discussion so far, the following has been hypothesized.

Hypothesis 1: Passives charge processing cost, and thus learners will make more errors due to underpassivization than overpassivization. As a result, psych-verb constructions, which require passivization, will be more difficult to acquire than unaccusatives, which don't require it.

Hypothesis 2: Once learners reach a stage where passivization does not charge extra-cost, learners' underpassivization errors will reduce, and accordingly, their errors with psych-verb constructions will decrease rapidly.

Hypothesis 3: Learners' difficulty with psych-verb constructions and unaccusative constructions will not depend on their familiarity with individual verbs.

III. Method

1. Participants

A total of 96 university students studying English as their major or minor participated in the experiment: 33 freshmen, 33 sophomores, 13 juniors, and 17 seniors. Their TOEIC scores ranged from the lowest 390 to the highest 890, with the average of 676.7. The wide range of the TOEIC scores reflects the wide range of the participants' proficiency level.

2. Instrument and Procedure

The participants performed two tasks: a timed GJ task and a word familiarity rating task. For the timed GJ task, twelve test sentences with a psych verb and twelve test sentences with an unaccusative verb were constructed. Six psych-verbs (*surprise*, *embarrass*, *disappoint*, *shock*, *frustrate*, and *frighten*) were used to make six pairs of grammatical and ungrammatical sentences, that is, one sentence using the correct passive

voice and one sentence using the incorrect active voice, as exemplified in (13). The paired grammatical and ungrammatical sentences were similar in length and structure, although not identical, so that the context surrounding the psych-verb might not influence the participants' decision.

(13) Psych-verb construction

Grammatical: The hikers were surprised to see a big bear.

Ungrammatical: The woman surprised to hear the loud noise.

Likewise, six unaccusative verbs were used to make six grammatical-ungrammatical sentence pairs, that is, one sentence using the correct active voice and one sentence in the incorrect passive voice, as illustrated below. As in the psych-verb test sentences, the difference between the grammatical and ungrammatical sentences in a pair was kept minimal.

(14) Unaccusative construction

Grammatical: The thief disappeared in the dark.

Ungrammatical: The girl was disappeared into the room.

All of the test sentences were constructed using easy, high-frequency words in order to prevent any difficulty caused by the words surrounding the psych verbs or unaccusatives.

Fourteen additional sentences were also included in the test as distracters in order to prevent the participants from overly focusing on psych-verb and unaccusative constructions so that their explicit/metalinguistic knowledge rather than their implicit/intuitive knowledge might play a dominant role in their decision-making. The distracter items tested the participants' knowledge of some linguistic areas that the researcher considered to pose problems to Korean EFL learners: word order in the subordinate wh-clause; tense agreement between the matrix clause and the subordinate clause; subject-verb agreement between the head noun and the verb within the relative clause modifying the noun; subject-verb agreement between the head noun modified by a relative clause and the main verb; and the choice between the relative pronoun and the relative adverb. Examples are presented below:

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- (15) Word order in the subordinate wh-clause
Grammatical: Mrs. Jones asked me what the problem was.
Ungrammatical: The people in the room didn't know what was the problem.
- (16) Tense agreement between the matrix and the subordinate clauses
Grammatical: Jane told us that she was going to church.
Ungrammatical: The doctor asked him if he feels okay.
- (17) Subject-verb agreement between the head noun and the verb within the relative clause
Grammatical: Students who do not pass the math exam must take math again.
Ungrammatical: Students who does not want to take geography can take history.
- (18) Subject-verb agreement between the head noun modified by a relative clause and the main verb
Grammatical: The little boy who passed all the subjects was so proud.
Ungrammatical: The young woman who finished all the assignments were so tired.
- (19) Relative pronoun vs. relative adverb
Grammatical: Geography is the subject that Joseph wants to take.
Ungrammatical: A café is a small restaurant that people can get a light meal.

In order to validate the test items, the sentences used in the test were judged by three native English speakers, all of whom agreed on the acceptability/unacceptability of the test sentences. The sentences were arranged in a random order, and no two sentences in their grammatical-ungrammatical pair appeared consecutively. The whole set of test sentences used in the present study are provided in Appendix, in their order of presentation in the test.

The test sentences were presented on the screen, one sentence at a time. Each sentence was numbered and appeared on the screen with a

click sound and disappeared after seven seconds. Then a blank screen was shown for three seconds before the next sentence appeared with a click. In order to reduce the fatigue effect, there was a 30 seconds' break after every ten sentences. As mentioned in II.5, the timed GJ used in this study was expected to elicit the learners' implicit knowledge rather than explicit or metalinguistic knowledge (Hulstijn, 2002; Ellis, 2005; Krashen, 1981). The time limit was set at seven seconds, through some adjustments via a mock test with two students.

The participants were told to put a circle next to the number of the sentence on their answer sheet if they consider the test sentence correct, and to put a cross next to the sentence number if they consider the test sentence incorrect. The participants were told to make decisions while the sentences stayed on the screen and not to correct their original answers after a second thought. In order to ascertain that the participants understand how to perform the task, the researcher and the participants had a mini-practice test with the first two test items (Item 1 and Item 2, which concerned progressives with or without the auxiliary *be*). After confirming that all the participants understood how to perform the task, the actual test started from Item 3.

In addition to the timed JG, the present study conducted a questionnaire survey in order to see if the learners' performance was affected by their familiarity with individual verbs. The participants were given a list of the psych-verbs and unaccusative verbs used in the test. They were asked to mark the degree of their familiarity with the individual words on the list on a 4-point Likert scale. (1=very unfamiliar, 2=a bit unfamiliar, 3=quite familiar, 4=very familiar). All the participants received a 5000 won-worth gift certificate as a reward.

3. Data analysis

The participants' individual performances on the 38 test items were scored. Their judgment on psych-verb constructions and that on unaccusatives were compared by conducting a paired-samples t-test, in order to see if there exists any difference in performance between the two types of constructions. The performances were also compared across three proficiency levels, to see if the processibility matter ceases to cause difficulty as the learners' proficiency improves.

The participants' degrees of familiarity with the individual verbs were also coded. The learners' familiarity with the psych verbs and their familiarity with the unaccusative verbs used in the test items were compared by conducting a paired-samples t-test. To further see whether the participants' familiarity with an individual verb affected the accuracy with a sentence that included the verb, a Pearson correlation analysis was performed.

IV. Results and discussion

1. Psych-verb vs. unaccusative

The analysis showed that the participants performed more accurately on psych-verb constructions than on unaccusative constructions as can be seen in Table 1. The difference in their judgment between the two groups of verbs was statistically significant ($t=4.030$, $df=95$, $p=.000$).

TABLE 1

GJ Average: Psych-V Constructions vs. Unaccusatives

	Mean	N	SD
Psych-V	.762	96	.217
Unaccusative	.667	96	.208

The above result is opposite to the direction of our first hypothesis. In Hypothesis 1, we had predicted that psych-verb constructions would be more difficult to acquire than unaccusative constructions because of the processing cost of the required passivization. Contrary to our prediction, the participants in our study performed better on psych-verb constructions, which needs to be explained.

2. The effect of the proficiency levels

The learners' performance on the GJ test (a total of 38 items) showed 72.3% accuracy on the average, the lowest being 34.2% and the highest being 97.4%. We divided the learners according to their test scores into the low, intermediate, and advanced groups, based on the

criteria presented in Table 2 (We used the test score instead of the TOEIC score because the seniors did not take the TOEIC test).

TABLE 2

Participants' Proficiency Levels

Level	Accuracy with the GJ test	N
Low	0-60%	26
Intermediate	60-80%	39
High	80-100%	33

When we compared the learners' performances across their proficiency levels, the same pattern was observed between psych-verb constructions and unaccusatives. That is to say, all three groups were found to perform better on psych-verb constructions than on unaccusatives, as is shown in Table 3.

TABLE 3

Accuracy by Levels: Psych-Verb vs. Unaccusative

Level	Psych-V		Unaccusative	
	Mean	SD	Mean	SD
Low (N=26)	.526	.161	.497	.152
Inter. (N=39)	.757	.160	.623	.175
Adv. (N=33)	.961	.059	.854	.118

However, the difference was minimal in the low group. The low group's accuracy rates in their judgment on the two types of constructions were around 50%. While they showed a slightly higher accuracy with psych-verb constructions than with unaccusative constructions, the difference was not statistically significant in the low group ($t=.582$, $df=25$, $p=.566$). The low performance indicates that the low-level learners struggle with both constructions.

In the intermediate group, on the other hand, the judgment on psych-verb constructions were more accurate than their judgment on unaccusative constructions, and the difference was statistically significant ($t=2.997$, $df=38$, $p=.005$) The difference was also significant in the advanced group ($t=4.960$, $df=32$, $p=000$). This suggests that psych-verb constructions become easier when the learners reach a certain stage. And that might further suggest that passivization no more imposes much

burden on learners' language processing. As the learners' acquisition of psych-verb constructions is accelerated due to the automatization of passives, the gap in performance between these two types of constructions seems to grow, although learners' performance on unaccusatives also improves along their levels. These findings lend support to our second hypothesis that the overpassivization errors will reduce and the accuracy with psych-verb constructions will rapidly increase.

3. The effect of word familiarity

An overwhelming majority of the participants responded that they were either "very familiar" or "quite familiar" with the psych and unaccusative verbs used in the present test, the average being 3.62 (Very unfamiliar=1, Very familiar=4). When the degrees of familiarity were compared between the psych verbs and unaccusative verbs, the participants were found to be slightly more familiar with the unaccusatives than with psych verbs, at the 0.05 significance level ($t=2.234$, $df=95$, $p=0.028$).

TABLE 4

Familiarity with Psych Verbs and Unaccusatives

	Mean	N	SD
Familiarity with psych V	3.585	96	.449
Familiarity with unaccusative V	3.664	96	.374

If the participants' judgment on unaccusative constructions had been more accurate than that on psych verbs, we would have considered the possibility that the learners' accuracy with unaccusative constructions was caused by their word familiarity with this group of verbs. The analysis, however, shows that the participants performed more accurately on psych-verb construction than on unaccusative constructions, despite the fact that the learners were a bit more familiar with the unaccusative verbs.

Table 5 lists the participants' degrees of familiarity with the individual verbs, where *surprise* is found to be the most familiar and *frustrate* the least familiar, with .42 point difference. A paired-sample t-test revealed that the difference between these two verbs were significant

($t=-6.490$, $df=95$, $p=.000$). Meanwhile, as Table 5 also shows, the word familiarity ranks did not converge with the matching GJ accuracy ranks.

TABLE 5

Word Familiarity and GJ Accuracy

Verb	Familiarity Rank (Degree of familiarity)	Accuracy Rank (Mean accuracy)
surprise	1 (3.86)	8 (0.708)
happen	2 (3.80)	6 (0.729)
arrive	3 (3.78)	12 (0.557)
disappear	4 (3.68)	7 (0.714)
shock	5 (3.65)	3 (0.776)
die	6 (3.63)	10 (0.677)
disappoint	7 (3.62)	5 (0.734)
occur	8 (3.61)	9 (0.693)
embarrass	9 (3.49)	2 (0.797)
fall	10 (3.48)	11 (0.625)
frighten	11 (3.45)	1 (0.813)
frustrate	12 (3.44)	4 (0.745)

The participants' word familiarity and their performance on timed GJ were not correlated at any significant level ($r=-.387$, $p=.215$). The lack of correlation suggests that the learners' performance on the grammaticality judgment task has not been influenced by their familiarity with the individual verbs.

The findings so far can be summarized as follows. First, the participants' difficulty with psych-verb and unaccusative constructions was not correlated with their familiarity with individual psych- or unaccusative verbs. So the participants' performances can be interpreted as their responses to the two different types of constructions rather than individual words.

Secondly, the learners were more accurate with psych-verb constructions than with unaccusatives. The fact that the learners showed a better performance on psych-verb constructions than on unaccusatives serves as a counterproof of our hypothesis that learners will make more errors with psych-verb constructions due to the burden of processing passivization. We are thus led to conclude that processing passivization is

not the single dominant factor that determines the difficulty of the acquisition of these two constructions.

Thirdly, our data showed that there was difference in performances among the three proficiency level groups. While the low group performances did not show difference between psych-verb constructions and unaccusatives, the intermediate and advanced groups performed better on psych-verb constructions. This lends supports to second hypothesis that their errors with psych-verb constructions will decrease rapidly as the passivization is automatized. If we can attribute the learners' improvement in psych-verb constructions to the automatization of processing passives, we can also attribute the low-level learners' frequent errors with psych-verb constructions to the difficulty with processing passives. In this sense, our findings do not deny the role of processing constraints in L2 learning. Rather, they suggest that the cognitive principle of processing is overridden by some more prevailing forces. As discussed in Section II, cross-linguistic influence is one such candidate. Still, as psych-verb and unaccusative constructions are both subject to L1 interference, we might have to ask whether the influence of L1 interference is more pervasive in unaccusative constructions than in psych-verb constructions.

Or we might have to borrow some other notions such as markedness or language universals (Eckman, 1984). The Markedness Differential Hypothesis predicts that a linguistic feature will be easy to acquire if it is unmarked in the target language but marked in the native language, and vice versa. So if Korean unaccusative is more unmarked and close to language universals and English unaccusative is more marked and language specific, English unaccusative will pose a serious challenge for Korean learners. In-depth research is needed to explore the pervasiveness of L1 transfer in acquiring these two constructions as well as the markedness of the two constructions in Korean and English.

V. Conclusion

Overpassivization and underpassivization are two conflicting phenomena observed in a single learner in the Korean EFL context. Further, Korean learners' overpassivization and underpassivization are generally restricted to unaccusative constructions and psych-verb

constructions, respectively. As the cognitive principle of processibility predicts that more processing leads to late acquisition and thus passives are more difficult to acquire than actives (Pienemann, 2005), the present research hypothesized that the processing difficulty with passivization will pose problems in acquiring the psych-verb construction and will make it more difficult to acquire than the unaccusative construction.

The participants of the present study, however, showed better performance on psych-verb constructions than on unaccusatives, suggesting that there are other factors than processibility that affects the acquisition of these constructions. While studies on these two constructions have suggested that L1 transfer exerts a strong influence on their acquisition, we are yet to explain why some linguistic features are more vulnerable to language transfer.

The present study found that learners' accuracy increases more rapidly with psych-verb construction than with unaccusatives. The rapid increase in accuracy with psych-verb construction, which is not found in unaccusatives, might be attributable to the automatization of the passivizing operation. This, in turn, lends support to the claim that the low-level group's low performance on psych-verb constructions is in part attributable to the processing difficulty with passives. Further inquiry is needed in order to ascertain that the accuracy with psych-verb construction increases with increased accuracy with other passive constructions.

As the present study measured the learners' difficulty with psych-verb and unaccusative constructions by means of a timed GJ test, our data demonstrate the learners' preference between passivized and non-passivized constructions. As such, they do not provide the actual production data showing evidence that learners overpassivize or underpassivize a certain verbs. As the present study has been conducted based on the assumption that timed GJ test is a test of the learners' implicit knowledge (Ellis, 2005), the proposals made in the present study can be supported to the extent that our assumption about timed GJ can be maintained. Further studies on the parallel development of passives, unaccusatives, and psych-verbs in the learner language are required to verify the claims made in the present study.

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Appendix

Time GJ Test Items

- 1 The dog eating the meat.
- 2 The dog was eating the meat
- 3 The woman surprised to hear the loud noise.
- 4 Several fires occurred in Seoul last year.
- 5 This is the company that he likes to work.
- 6 Jane told us that she was going to church.
- 7 The boy fell into the swimming pool.
- 8 The little girl was frightened, so she called the police.
- 9 Her mother was died of cancer 5 years ago.
- 10 The boy who finished all the assignments were so tired.
- 11 The woman frustrated because she could not find help.
- 12 The doctor asked him if he feels okay.
- 13 He was embarrassed because he could not speak English.
- 14 This is the topic that we want to talk about.
- 15 The thief disappeared into the dark.
- 16 All the people shocked to hear the news.
- 17 Mr. Jones asked me what the problem was.
- 18 Several storms were occurred in Seattle last year.
- 19 The girl was disappointed when she found her grade.
- 20 Your package was arrived a few hours ago.
- 21 The hikers were surprised to see a big bear.
- 22 Mary told her father that she has a fever.
- 23 The people were frustrated because they lost all the money.
- 24 I asked him what kind of movies does he like.
- 25 A terrible accident happened last night.
- 26 The teacher embarrassed because she made a mistake.
- 27 The girl was disappeared into the forest.
- 28 The little boy who passed all the subjects was very proud.
- 29 The cat frightened when it saw a big dog.
- 30 Their parents died of cancer when they were young.
- 31 The boy disappointed because he got a bad grade.
- 32 People who have a lot of friends do not have time to watch TV.
- 33 The cup was fallen from the table

- 34 A letter from her mom arrived two days ago.
35 Everyone was shocked to hear the news.
36 The people in the room didn't know what was the problem.
37 So many things were happened to her last week.
48 People who have only one child wants to have more children.

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