

The Unaccusative-Unergative Distinction in Resultatives: Evidence from Korean L2 Learners of English

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1. Introduction

Recently, there has been a spate of L2 research on the learnability problems associated with the acquisition of unaccusative verbs, which along with unergative verbs, comprise the two sub-classes of intransitive verbs. Recent L2 research has also investigated the status of the unergative-unaccusative distinction in L2 grammars. A substantial body of previous L2 research in this area has focused on the acquisition of English unaccusatives by learners from different L1 backgrounds, such as Chinese (Balcom, 1997; Yip, 1995), Japanese (Hirakawa, 2003, 1995; Oshita, 2000, 1997), Italian (Oshita, 1997) or Spanish (Oshita, 1997). To our knowledge, however, there have been hardly any studies (except for J.-H. Song, 2000) on the L2 acquisition of English unaccusative verbs by native speakers of Korean. Furthermore, to our knowledge, there have been no studies on the unaccusative-unergative distinction in the English interlanguage of native speakers of Korean. This paper addresses the issue of how Korean L2 learners' knowledge of unaccusativity is represented in their interlanguage grammars of English. Specifically, the study reported here investigates whether Korean L2 learners of English distinguish between the two subclasses of intransitive verbs, unergative verbs and unaccusative verbs, (specifically, alternating unaccusative verbs)¹. To this end, the present study makes use of the English resultative phrase as the syntactic diagnostic for the unaccusative-unergative distinction in English. On the basis of our experimental results, we argue that Korean L2 learners of English make the unaccusative-unergative distinction in English resultatives. Our study contributes to research on the L2 acquisition of the subclasses of intransitive verbs in particular and the lexicon in general.

The paper is organized as follows. Section 2 provides an overview of the Unaccusative Hypothesis and discusses the resultative structure as a piece of syntactic evidence for unaccusativity in English and Korean respectively. Section 3 reviews previous L2 research on the unaccusative-unergative distinction in English resultatives. Section 4. presents the research questions and Section 5 describes the methodology used to elicit the L2 data and the procedures for data analysis. Section 6 reports the results of the study. Section 7 discusses the implications of the findings, and suggests recommendations for further research.

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¹ The study reported here was part of a larger study that investigated the representation of alternating unaccusative verbs as well as non-alternating unaccusative verbs in the English interlanguage grammars of native speakers of Korean (see K.-S. Park, 2006). Our focus here is on the results of one of the experiments, which examined the status of the distinction in relation to alternating unaccusative verbs.

2. The Unaccusative Hypothesis

The Unaccusative Hypothesis, which was originally proposed by Perlmutter (1978) within the context of Relational Grammar, distinguishes between the two classes of intransitive verbs; one sub-class of intransitive verbs, known as unergative verbs, entails “willed or volitional acts” (e.g. *dance, run, walk, work*, etc.) and the other sub-class, unaccusative verbs, denotes “unwilled or non-volitional acts” (e.g. *burn, melt, fall, happen*, etc.). Unaccusative verbs consist of two subtypes, alternating unaccusative verbs and non-alternating unaccusative verbs. Alternating unaccusative verbs (e.g. *break, freeze, melt, sink*, etc.) have a transitive/causative counterpart, but non-alternating unaccusative verbs (e.g. *appear, arrive, fall, happen*, etc.) do not. Both unaccusatives and unergatives only take one argument. The sole argument of the unergative is agentive whereas the sole argument of the unaccusative is a theme.

Crosslinguistically, there is evidence for a universal linking rule in relation to the canonical mapping of the thematic roles associated with verbs onto to the syntactic positions in a clause. Universally, agents typically map onto the subject position and themes/patients map onto the direct object position. As (1a) illustrates, the agent argument of a transitive verb such as *melt* is mapped onto to the subject and the theme argument is mapped onto the object. In the case of an unergative verb, as shown in (1b), the sole argument (agentive) is mapped onto to the subject position. In the case of an unaccusative verb, however, as shown in (1c), there appears to be a mismatch between the theta role (i.e. theme) borne by the sole argument and its position in the surface syntax (i.e. subject).

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|-----|------------------|--------------------------------------|---------------------|
| (1) | a. Transitive: | <u>Mary</u> melted <u>the snow</u> . | |
| | | Subject Direct object | (Grammatical roles) |
| | | <Agent> <Theme> | (Thematic roles) |
| | b. Unergative: | <u>Mary</u> danced. | |
| | | Subject | (Grammatical roles) |
| | | <Agent> | (Thematic roles) |
| | c. Unaccusative: | <u>The snow</u> melted. | |
| | | Subject | (Grammatical roles) |
| | | <Theme> | (Thematic roles) |

The apparent mismatch in the syntactic mapping of the sole argument (theme) of unaccusative verbs is explained by Baker’s Uniformity of Theta Assignment Hypothesis (Baker, 1988, as cited in Baker, 1997, p. 74).

- (2) Uniformity of Theta Assignment Hypothesis (UTAH)
Identical thematic relationships between items are represented by identical structural relationships between those items at the level of D-Structure.

Although the theme argument of unaccusative verbs appears in the subject position on the surface, according to UTAH, unlike in the case unergative intransitives, the sole argument of unaccusative verbs is base-generated in the direct object position at D-Structure (i.e. as an internal argument). Its appearance in the subject position in the surface syntax is a result of its movement from its original position (i.e. direct object) to the specifier position of IP. According to Burzio’s generalization (Burzio, 1986), unaccusative verbs behave like passives in their inability to assign Accusative Case to the internal argument in direct object position, which forces movement of the theme argument to the specifier position of IP, so that it may be assigned Nominative Case. The D-Structure syntactic configurations of unergative verbs and unaccusative verbs are presented in (3). As shown in (3), in terms of their underlying argument structure, unergative verbs take an external argument, whereas unaccusative verbs take an internal argument.

- | | | | |
|-----|------------------|----|-----------------------|
| (3) | a. Unergative: | NP | [_{VP} V] |
| | b. Unaccusative: | — | [_{VP} V NP] |

The D-Structure and S-Structure representations of a sentence involving an unaccusative verb, such as *The snow melted* are presented in (4).

- (4) a. D-Structure: [*e* [VP melted The snow]]
 b. S-Structure: [The snow_i [VP melted t_i]]

2.1. English Resultatives

According to the *Direct Object Restriction (DOR)*, the English resultative phrase “may be predicated of the immediately postverbal NP, but may not be predicated of a subject or of an oblique complement (Levin & Rappaport Hovav, 1995, p. 34).” In (5), for example, which involves a transitive verb, the resultative phrase *blue* is predicated of the immediately postverbal NP *the table* (i.e. the direct object of *paint*) and describes its resulting state. The sentence means that *Kay painted the table, and as a result of her painting it, the table became green.*

- (5) Transitive: Kay painted the table *green*.

The sentence in (6), which contains an unergative intransitive verb *shout*, cannot have a resultative interpretation, namely that Dora became hoarse as a result of her shouting. However, the sentence in (7), which contains an unaccusative intransitive has a resultative interpretation, namely that the river became solid as a result of freezing. As seen in (6-7), the resultative phrase is compatible with the unaccusative subject, but not with the unergative subject.

- (6) Unergative: *Dora shouted hoarse.
 (7) Unaccusative: The river froze solid. (Levin & Rappaport Hovav, 1995, p. 35)

Recall that the sole argument of unergative verbs is base-generated in subject position at D-Structure. In contrast, the surface subject of unaccusative verbs is underlyingly in object position, which explains why the DOR is not violated in (7). In other words, as shown in (8), the subject of the unaccusative verb behaves like the object of the transitive verb as in (5).

- (8) D-Structure: [*e* [[VP froze the river] solid]]

In (8), the resultative phrase *solid* modifies the object *the river* and describes the resultant state of the river. In sum, the English resultative phrase can be compatible with objects of transitive verbs and subjects of unaccusative verbs (objects at D-Structure), but cannot be compatible with subjects of unergative verbs. Therefore, the English resultative phrase serves as syntactic evidence for unaccusativity.

2.2. Korean Resultatives

Korean resultatives exhibit the same asymmetry between unergatives and unaccusatives as English. That is, similar to English, resultatives in Korean are compatible with transitive objects and unaccusative subjects, but not with unergative subjects, as illustrated in (9) (J-B. Kim, 1999, 1993; J.-K. Lee & C.-M. Lee, 2003; S.-W. Kim and Maling, 1997).

- (9) a. Transitive
 ku-nun soy-lul pyongpyongha-key chy-ess-ta.
 He-TOP metal-ACC flat-COMP pound-PST-DECL
 'He pounded the metal flat.'
- b. Unaccusative
 kang-i tantanha-key el-ess-ta.
 river-NOM solid-COMP freeze-PST-DECL
 'The river froze solid.'

c. Unergative		
*ku-nun	aphu-key	kichimha-yess-ta.
He-TOP	sick-COMP	cough-PST-DECL
*'He coughed sick.'		(J-B. Kim, 1993, p. 471)

3. Previous L2 Research

Ever since Perlmutter and Burzio put forth their proposals regarding the two subclasses of intransitive verbs, unergatives and unaccusatives, L2 researchers have focused on not only the acquisition of English unaccusative verbs (Balcom, 1997; Hirakawa, 2003, 2001, 1999, 1995; Oshita, 2005, 2004, 2001, 2000, 1997; J.-H. Song, 2000; Yip, 1995, 1994; Zobl, 1989), but also on the L2 acquisition of unaccusative verbs in other languages, such as Italian and French (Sorace, 1995, 1993a, 1993b), Chinese (Yuan, 1999), Japanese (Hirakawa, 2003, 2001, 1999) and Korean (M. Lee, 2004). Among the several issues related to the L2 acquisition of unaccusative verbs, the acquisition of the unaccusative-unergative distinction by L2 learners has begun to receive increasing attention (Hirakawa, 2003; M. Lee, 2004; Oshita, 1997). In particular, Hirakawa (2003) and Lee (2004) investigated whether native speakers of English acquiring Japanese and Korean respectively observe the unaccusative-unergative distinction. They found that the L2 learners of these languages successfully distinguished unaccusative verbs from unergative verbs. As for the unaccusative-unergative distinction in English, Oshita (1997), based on the results of two grammaticality judgment tasks, found that Italian and Japanese L2 learners of English clearly distinguished between unaccusatives and unergatives. Hirakawa (2003) also examined whether Japanese L2 learners of English distinguish between unaccusative verbs and unergative verbs in resultatives and pseudopassives, which are two diagnostics for deep unaccusativity in English. Hirakawa found that the Japanese L2 learners successfully made the unaccusative-unergative distinction. However, as Hirakawa conducted the experiment with one proficiency level, it is not possible to determine whether there were developmental stages by proficiency level in acquiring the unaccusative-unergative distinction in English resultatives.

4. Research Questions

Recall that English resultatives are compatible with alternating unaccusative verbs, especially, change of state verbs (*break, burn, freeze, grow, melt*, etc.) and transitive verbs (*build, cut, hit, paint, wash*, etc.), but are incompatible with unergative verbs (*dance, laugh, play, sing, swim*, etc.). Compatibility of the resultative expression with alternating unaccusative verbs indicates that unaccusative verbs are underlyingly transitives. In other words, the sole argument of unaccusative verbs, which is in the subject position in the surface syntax, is in the direct object position at D-Structure. The present study sought to address the following questions:

Do Korean L2 learners of English make the unaccusative-unergative distinction in English resultative sentences? Specifically, do they know the compatibility of resultatives with alternating unaccusative verbs and their incompatibility with unergative verbs?

- Is there a significant difference in performance between the three groups, the intermediate L2 group, the advanced L2 group, and the native speakers of English?
- Is there a significant difference in performance, within each of the three groups, between the three verb types: i.e. alternating unaccusative, unergative, and transitive?
- Are the L2 learners and the native speakers of English consistently accurate on the resultative sentences for each verb type?

5. Methodology

5.1. Participants

A total of 41 subjects participated in this study, consisting of 27 Korean L2 learners of English and 14 native speakers of English. All of the participants were pursuing their graduate or

undergraduate studies at a mid-western university in the U.S. during the summer semester of 2005 when the study was conducted. The experimental group subjects were divided into two different proficiency levels based on the results of a cloze test (intermediate and advanced). On the basis of their answers to a background questionnaire, it was found that 26 of the Korean L2 learners of English had completed their high school education in Korea prior to coming to the U.S. and that one Korean L2 learner of English had completed his high school education in the U.S. The subjects' ages ranged from 20 years to 45 years with the average age being 30 years; and their length of stay in the U.S. ranged from 4 months to 12 years with the average length of stay being 4 years. 16 of the L2 subjects were males and 11 were females. 12 of the subjects were graduate students and 15 were undergraduate students. Those subjects whose field of study was Linguistics or a Linguistics related discipline were excluded since it was assumed that they may have had some explicit instruction about unaccusative verbs. With regard to the native-speaking control group, the subjects' ages ranged from 21 years to 42 years, with the average age being 26 years. 5 of the subjects in the control group were males and 9 were females; 5 of the control group subjects were graduate students and 9 were undergraduate students.

5.2. *Materials and Procedures*

In order to address the above research questions, three different tasks were used in the study: (1) an English questionnaire; (2) an English cloze test; and (3) a grammaticality judgment task. We used a questionnaire developed by Lakshmanan, Kim, Margono, and Yammamori (2004) to seek background information about the participants. A cloze test was administered to measure the English proficiency levels of the experimental subjects. We adopted the cloze test that Oshita (1997) developed for his study. It consisted of three separate stories of approximately the same length, with each story consisting of a total of 25 blanks. We included only the second and third narratives; thus, the total number of blanks in the cloze test was 50. For the main instrument, we replicated Hirakawa's (2003) grammaticality judgment task, which she designed for her study, with slight modifications. The task was administered to investigate whether the learners have knowledge of the compatibility and incompatibility of resultative expressions with unaccusative verbs and unergative verbs respectively. The tasks were administered in the following sequence: (1) questionnaire; (2) cloze test; and (3) grammaticality judgment task. The tasks were administered to the subjects on an individual basis.

5.3. *A Grammaticality Judgment Task*

Three types of verbs were included in the grammaticality judgment task: transitives, unergatives, and alternating unaccusatives. Each verb type was represented by five verbs, as shown in Table 1.

Table 1. Verbs Used in the Grammaticality Judgment Task

Transitive	build, cut, hit, paint, wash
Unergative	dance, laugh, play, sing, swim
Alternating unaccusative	break, burn, freeze, grow, melt

Thus, a total of 15 English resultative sentences (3 types of verbs x 5 different verbs) were administered. Example sentences from the grammatical judgment task illustrating each of the three verb types are shown in (10).

- (10)
- a. Transitive (acceptable)
John's favorite color was yellow.
He painted his car yellow.
 - b. *Unergative (unacceptable)
Mary was at the Karaoke party for hours.
***She sang hoarse.**
 - c. Alternating unaccusative (acceptable)
Susan didn't have her hair cut for 6 months.
Her hair grew long.

As the examples in (10) illustrate, the resultative sentence to be judged (shown in bold face) was immediately preceded by a sentence that provided an appropriate context. The subjects were asked to judge the grammaticality/ungrammaticality of the second sentence in each item by circling one of the numbers according to a 5-point scale (completely impossible) to +2 (completely possible).

5.4. Procedures for Data Analysis

For the grammaticality judgment task, the subjects' numerical responses were based on a 5-point scale from -2 (completely impossible) to +2 (completely possible), with 0 (unable to decide). Negative scores such as -2 and -1 represent a rejection and positive scores such as 1 and 2 represent an acceptance of either a grammatical or ungrammatical sentence. A multivariate analysis of variance (MANOVA) and paired samples t-tests were conducted to analyze the results of the grammaticality judgment task. In addition to analyzing the group results, the individual results for each group were also analyzed. The individual results were examined to determine whether there was consistency in accuracy in relation to the subjects' judgments of the resultative sentences depending on verb type. Following Hirakawa, 4 or more accurate responses out of a total 5 responses for each verb type was adopted as the criterion for consistency in accuracy; likewise, following Hirakawa, responses of '0' (unable to decide) were considered inaccurate responses.

6. Results

6.1. Results of the Cloze Test

The descriptive statistics results of the cloze test are presented in Table 2.

Table 2. Descriptive Statistics

	M	SD	Minimum	Maximum
Intermediate (N = 12)	26.58	3.32	21.00	30.00
Advanced (N = 11)	33.46	3.53	31.00	41.00

In the process of participant screening, three participants in the experimental group who had the lowest scores (12, 17 and 19 out of a total of 50 in the cloze test) were excluded from the data analysis. One participant, whose score was 30 on the cloze test, was also excluded since he did not respond to all of the experimental task items. Thus the number of the participants in the experimental group for the data analysis was 23. Based on the results of the cloze test, the subjects were assigned to two proficiency groups (Intermediate: N=12 and Advanced : N=11).

6.2. Results of the Grammaticality Judgment Task

Recall that the English resultative phrase is compatible with alternating unaccusative verbs and transitive verbs, but not with unergative verbs. As shown in Table 3 and Figure 1, the native speaker group performed as expected, accepting the grammatical resultatives (i.e. with transitives and alternating unaccusatives) and rejecting the ungrammatical resultatives (i.e. with unergatives). Their rejection of resultative sentences with unergative verbs was not as strong as expected ($M = -0.73$). The advanced L2 group correctly accepted the resultative sentences with transitive verbs and alternating unaccusative verbs and correctly rejected the resultative sentences with unergative verbs, although their rejection was very weak ($M = -0.16$). The intermediate L2 group correctly accepted the resultative sentences with transitive verbs and alternating unaccusative verbs, but failed to reject the resultative sentences with unergative verbs ($M = 0.05$). A summary of the results based on the descriptive statistics for the three groups is presented in Table 3. Fig 1 displays the mean ratings for the three sentence types by group.

Table 3. Descriptive Statistics of the Grammaticality Judgment Task

Verb Type	Group	M	SD	Number of Subjects
Transitive	Intermediate	0.8833	1.16578	12
	Advanced	1.0182	1.16255	11
	Native	1.2714	1.02039	14
Unergative	Intermediate	0.0500	1.43119	12
	Advanced	-0.1636	1.58422	11
	Native	-0.7286	1.28448	14
Alternating unaccusative	Intermediate	0.7833	1.53039	12
	Advanced	1.1091	1.30061	11
	Native	1.3000	0.95326	14

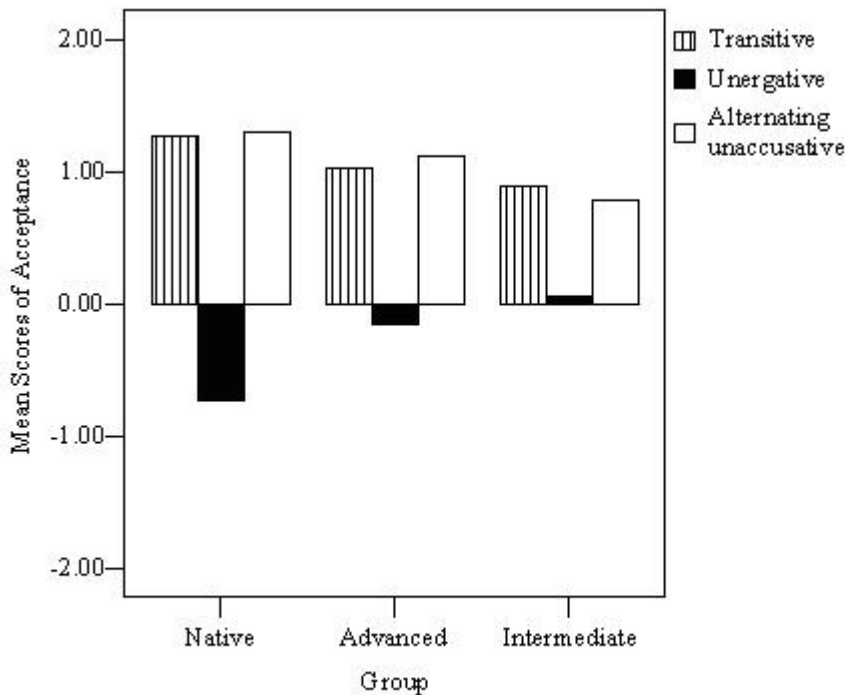


Figure 1. Mean Acceptability on the Resultative Sentences by Group

- Notes:
1. +2 indicates completely acceptable, while -2 indicates completely unacceptable.
 2. The positive side indicates the subjects' acceptance, while the negative side indicates their rejection.
 3. Mean scores for transitives and alternating unaccusatives are expected to have a positive value, while mean scores for unergatives are expected to have a negative value.

The MANOVA showed that *group* was a significant factor in determining subjects' judgment of resultative constructions, $\lambda = 0.896$, $F(6, 360) = 3.40$, $p = 0.003$. The results of the univariate analysis revealed a significant difference between the groups in relation to their performance on the ungrammatical resultative sentences with unergative verbs, $F(2, 182) = 5.215$, $p = 0.006$. In order to find out which groups were significantly different from each other, the significant univariate test was followed by the Tukey post-hoc multiple comparison test. It showed that the only significant difference in relation to resultatives with unergative verbs was between the intermediate L2 group ($M = 0.05$) and the native speakers ($M = -0.73$).

The results of the t-test are summarized in Table 4. As seen in Table 4, the results of the T-tests showed that there were significant differences between the means for transitive verbs and unergative verbs and between the means for unaccusative verbs and unergative verbs in relation to the advanced L2 group and the native speakers. On the other hand, the pattern of responses in relation to the intermediate L2 group was somewhat different. Similar to the other two groups, there was a significant difference between the means for alternating unaccusative verbs and unergative verbs; however, unlike the other two groups, there were no significant differences between the means for transitive verbs and unergative verbs. As predicted, for all three groups there were no significant differences between the mean scores for transitives and unaccusatives.

Table 4. Results of the T-tests

Group	Verb Type	t	p
Intermediate (N = 12)	Alternating unaccusative-Unergative	*-3.552	.005
	Transitive-Unergative	2.517	.029
	Transitive-Alternating unaccusative	.394	.701
Advanced (N = 11)	Alternating unaccusative-Unergative	*-4.967	.001
	Transitive-Unergative	*5.045	.001
	Transitive-Alternating unaccusative	-.328	.749
Native (N = 14)	Alternating unaccusative-Unergative	*-10.566	.000
	Transitive-Unergative	*9.445	.000
	Transitive-Alternating unaccusative	-.268	.793

$p = 0.017$

The individual results of the grammaticality judgment task are summarized in Table 5. As shown in Table 5, the native speaker group displayed the highest level of consistency in their judgment of the resultative sentence items by verb type. 79% of the native speakers were consistently correct on the resultative sentences with transitive verbs and 93% of them were consistently correct on the resultative sentences with alternating unaccusative verbs. 36% of them were consistently correct on the resultative sentences with unergative verbs. As for the Korean L2 learners, 73% of the advanced L2 learners were consistently accurate on the resultative sentences with transitive verbs as well as with alternating unaccusative verbs. On the other hand, only 18% of them were consistently accurate on the resultative sentences with unergative verbs. As for the intermediate L2 group, consistency was observed for 75% of the subjects on the resultative sentences with transitive verbs and for 58% of the subjects in relation to alternating unaccusative verbs. Similar to the advanced L2 group, only 17% of the intermediate L2 group showed consistency on the resultative sentences with unergative verbs.

In sum, the individual results of the resultative sentences showed that regardless of their proficiency levels, the majority of the Korean L2 learners were consistently accurate on resultative sentences with transitive verbs and alternating unaccusative verbs, but not with unergative verbs.

Table 5. Proportion of the Subjects' Consistently Accurate Responses

Group	Transitive	Unergative	Alternating unaccusative
Intermediate (N = 12)	75% (9)	17% (2)	58% (7)
Advanced (N = 11)	73% (8)	18% (2)	73% (8)
Native (N = 14)	79% (11)	36% (5)	93% (13)

6.3. Summary of the Major Findings

Overall, the Korean L2 learners in both proficiency groups and the native speakers of English correctly accepted the resultative sentences with transitive verbs (e.g., *He painted his car yellow*) and alternating unaccusative verbs (e.g., *Her hair grew long*). The intermediate L2 group failed to reject the incorrect resultative sentences with unergative verbs (e.g., **She sang hoarse*) ($M = 0.05$). They rejected the incorrect resultative sentences with unergative verbs significantly less than did the native speaker group (Intermediate L2 group: $M = 0.05$; NSs English: $M = -0.73$). The advanced L2 group and the native speaker group correctly rejected the incorrect resultative sentences with unergative verbs. The

advanced L2 group's rejection of incorrect resultative sentences with unergative verbs was very weak ($M = -0.16$). There were significant differences between the means for transitive verbs and unergative verbs for the advanced L2 group ($p \leq 0.001$) and for the native speaker group ($p \leq 0.000$). There were significant differences between the means for alternating unaccusatives and unergatives for the intermediate L2 group ($p \leq 0.005$), for the advanced L2 group ($p \leq 0.001$), and for the native speaker group ($p \leq 0.000$).

The individual results showed that 18% or less of the Korean L2 learners in both proficiency groups, specifically, 2 out of the 12 subjects in the intermediate L2 group and 2 out of the 11 subjects in the advanced L2 group, accurately judged 4 or more out of 5 resultative sentences with unergative verbs. The remaining subjects in the L2 groups gave a correct judgment on less than 4 or 3 items out of a maximum of 5.

7. Conclusion and Discussion

The group results showed that the Korean L2 learners of English in both proficiency groups, like the native-speaker group, strongly accepted the resultative sentences with transitive verbs and alternating unaccusative verbs. There was no significant difference between transitives and alternating unaccusatives for the L2 groups and for the native-speaker group. This suggests that the Korean L2 learners and the native speakers of English treated grammatical resultative sentences with transitives and alternating unaccusatives alike. This indicates that they were generally aware of the compatibility of the resultative phrase with transitives and alternating unaccusatives. This further implies that they had knowledge of the syntactic property of alternating unaccusative verbs; that is, they knew that the sole argument of the alternating unaccusative verb is a direct object at D-structure, and not a subject.

There were significant differences between alternating unaccusatives and unergatives for the Korean L2 learners in both proficiency groups and for the native-speaker group. Further, there were significant differences between transitives and unergatives for the advanced L2 group and for the native-speaker group. Although the Korean intermediate L2 group did not demonstrate a statistically significant contrast between transitives and unergatives, they showed a clear pattern with the Korean advanced L2 group and native-speaker group. This provides evidence that the Korean L2 learners and native speakers made the unaccusative-unergative distinction.

In terms of developmental stages, although the advanced L2 proficiency group performed slightly better on the task than did the intermediate L2 proficiency group, they did not differ significantly in their performance. This suggests that Korean L2 learners of English do not go through developmental stages by proficiency level in acquiring the classification of the two subtypes of intransitive verbs in English resultatives.

Both group and individual results show that only a subset of the Korean L2 learners correctly rejected the resultative sentences with unergative verbs. Their low accuracy on the resultatives with unergative verbs can be accounted for in several ways. First, they may have misinterpreted the resultative phrase as an adverb; for example, *She sang hoarse* may have been interpreted as *She sang hoarsely* and *The audience laughed helpless* may have been interpreted as *The audience laughed helplessly*. Indeed, the L2 subjects showed the lowest accuracy on those two items. It is also plausible that the Korean L2 learners have not acquired or adopted a clear-cut boundary of lexical categories between adjectives and adverbs. It is the case that some English adjectival forms are used instead of adverb counterparts in informal speech, as for example, *You fight good* for *You fight well*. Thirdly, they may have analyzed the resultative phrase as a depictive; for example, *She danced tired* may have been interpreted as *She was tired while she was dancing*.

Even native speakers in the present study showed low consistency in relation to the resultative sentences with unergative verbs. Like the Korean L2 learners, they may have interpreted the unergative resultative sentences as depictive ones. Alternatively, they may not have used a depictive interpretation at all. Instead, they may have mentally inserted or processed in a fake reflexive; for example, *She sang hoarse* may have been processed as *She sang herself hoarse*. Yet another possibility, is that as in the case of the L2 learners, they may not have adopted a clear-cut boundary of lexical categories between adjectives and adverbs.

On the basis of the major findings and discussion above, we suggest that the Korean L2 learners in our study were aware of the compatibility of the English resultative phrase with transitives and

alternating unaccusative verbs. Although they were less certain about the incompatibility of the resultative expression with unergatives, our findings suggest that they did indeed differentiate between alternating unaccusative verbs and unergative verbs. Our findings also indicate that the Korean L2 learners did not undergo developmental stages by proficiency level in acquiring classification of subtypes of intransitive verbs, specifically, alternating unaccusative verbs and unergative verbs.

In the present study, the DOR (*Direct Object Restriction*) was presupposed as evidence for unaccusativity. That is, our work was based on the proposal that the two subtypes of intransitive verbs, unaccusative verbs and unergative verbs are syntactically differentiated in the English resultatives by virtue of the DOR. As the DOR has been recently called into question in both English and Korean (J.-B. Kim, 1999; Rappaport Hovav & Levin, 2001; Wechsler, 1997), further research is needed on the status of the ECP resultative (i.e. the fake reflexive resultative) in L2 grammars. Additionally, the Korean morphological marker *-key* appears to have a dual function, that is, as a resultative predicate and an adverbial suffix (Wechsler & B. Noh, 2001). Further research on the role of the L1 morphological properties of the resultative is needed in order to confirm our conjecture that the Korean L2 learners might have treated the adjective in the resultative predicate as an adverbial.

References

- Baker, M. (1988). *Incorporation: A theory of grammatical function changing*. Chicago: University of Chicago Press.
- Baker, M. (1997). Thematic roles and syntactic structure. In L. Haegeman (Ed.), *Elements of grammar: Handbook of generative syntax* (pp. 45-79). Dordrecht: Kluwer.
- Balcom, P. (1997). Why is this happened? Passive morphology and unaccusativity. *Second Language Research*, 13(1), 1-9.
- Burzio, L. (1986). *Italian syntax: A government-binding approach*. Dordrecht: Reidel.
- Hirakawa, M. (1995). L2 acquisition of English unaccusative constructions. *Proceedings of the 19th Boston University Conference on Language Development*, 291-302.
- Hirakawa, M. (2001). L2 acquisition of Japanese unaccusative verbs. *Studies in Second Language Acquisition* 23, 221-245.
- Hirakawa, M. (1999). L2 acquisition of Japanese unaccusative verbs by speakers of English. In K. Kanno (Ed.), *The acquisition of Japanese as a second language* (pp. 89-113), Amsterdam: John Benjamins.
- Hirakawa, M. (2003). *Unaccusativity in second language Japanese and English*. Kasugabe, Japan: Hituzi Syobo Publishing LTD.
- Kim, J. B. (1999). Constraints on the formation of Korean and English resultatives. *Proceedings of NELS*, 29, 137-151.
- Kim, J. B. (1993). Syntax and semantics of Korean resultatives. *Harvard Studies in Korean Linguistics*, 5, 471-482.
- Kim, S. W. & Maling, J. (1997). A cross-linguistic perspective on resultative formation. *Proceedings of the 1997 Texas Linguistics Society Conference*, University of Texas Linguistics Department, 189-204.
- Lakshmanan, U., Kim, J. E., Margono, S., & Yamamori, Yuko. (2004). The L2 acquisition of English locative verbs by native speakers of Japanese and Korean. Manuscript, Southern Illinois University at Carbondale.
- Lee, J. K. & Lee, C. M. (2003). Korean resultative constructions. *Proceedings of the 9th international conference on Head Driven Phrase Structure Grammar*, 169-186, Stanford University: CSLI Publications.
- Lee, M. (2004). Acquisition of unaccusative verbs in L2 Korean. *Harvard Studies in Korean linguistics*, 10, 119-128.
- Levin, B. & Rappaport Hovav, M. (1995). *Unaccusativity: At the syntax-lexical semantics interface*. Cambridge, MA: MIT Press.
- Oshita, H. (2005). Looking for "U": Evidence for the unaccusative trap hypothesis. Paper presented at the Second Language Research Forum in 2005, Columbia University, New York.
- Oshita, H. (2004). Is there anything there when *there* is not there? Null expletives and second language data. *Second Language Research* 20 (2), 95-130.
- Oshita, H. (2001). The unaccusative trap in second language acquisition. *Studies in Second Language Acquisition* 23 (2), 279-304.
- Oshita, H. (2000). *What is happened* may not be what appears to be happening: A corpus study of "passive" unaccusatives in L2 English. *Second Language Research* 16 (4), 293-324.
- Oshita, H. (1997). *The unaccusative trap: L2 acquisition of English intransitive verbs*. Unpublished doctoral dissertation, University of Southern California.
- Perlmutter, D. (1978). Impersonal passives and the unaccusative hypothesis. *Proceedings of the 4th Berkeley Linguistics Society*, 157-189.

- Park, K. S. (2006). *L2 acquisition of English unaccusative verbs by native speakers of Korean*. Unpublished MA thesis. Southern Illinois University at Carbondale.
- Rappaport Hovav, M & Levin, B. (2001). An event structure account of English Resultatives. *Language* 77, 4, 766-797.
- Song, J. H. (2000). *L2 acquisition of English causatives by adult native speakers of Korean*. Unpublished MA thesis. Southern Illinois University at Carbondale.
- Sorace, A. (1995). Acquiring linking rules and argument structures in a second language: The unaccusative/unergative distinction. In L. Eubank, L. Selinker & M. Sharwood Smith (Eds.), *The current state of Interlanguage* (pp. 79-113). Amsterdam: John Benjamins.
- Sorace, A. (1993a). Incomplete vs. divergent representations of unaccusativity in non-native grammars of Italian. *Second Language Research* 9, 22-47.
- Sorace, A. (1993b). 'Unaccusativity and auxiliary choice in non-native grammars of Italian and French: Asymmetries and predictable indeterminacy'. *French Language Studies* 3, 71- 93.
- Wechsler, S. (1997). Resultative predicates and control. *Texas Linguistic Forum* 38: *The syntax and semantics of predication*, 307-321.
- Wechsler, S. & Noh, B. (2001). On resultative predicates and clauses: Parallels between Korean and English. *Language Sciences* 23, 391-423.
- Yip, V. (1994). Grammatical consciousness-raising and learnability. In T. Odlin (Ed), *Perspectives on pedagogical grammar* (pp. 123-139). Cambridge, UK: Cambridge University Press.
- Yip, V. (1995). *Interlanguage and learnability: From Chinese to English*. Amsterdam: John Benjamins.
- Yuan, B. (1999). Acquiring the unaccusative/unergative distinction in a second language: Evidence from English-speaking learners of L2 Chinese. *Linguistics* 37, 275-297.

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