

Unaccusative Verbs and Learnability

Jae Min Kim

(Chonbuk National University)

Kim, Jae Min. 2004. Unaccusative Verbs and Learnability. *The Linguistic Association of Korea Journal*, 12(4), 37-54. This paper deals with Korean learners' overpassivization errors in the unaccusative constructions and suggests the Natural Learning Hypothesis for the errors. I argue that L1 influence, a process in the language acquisition device, and the complex syntactic movement interplay for the errors and acquisition process. Also, it is argued that the poor input of English unaccusatives at the middle/high school level may lay an obstacle to the acquisition of the verbs.

Key words: Unaccusative verbs, Learnability, Overpassivization, Syntactic Movement

1. Introduction

Ever since the formulation of the unaccusative hypothesis (Perlmutter, 1978, Burzio, 1986), it has been recognized that intransitive verbs are universally classified into two main classes: unaccusatives and unergatives. Some linguists argue that unaccusatives are characterized as verbs whose subjects undergo a change or lack volition (cf. Perlmutter 1978, Rosen 1984).

The classification rests on the thematic nature of the sole argument these verbs project, as well as on its initial position in syntactic configuration. In the Principles and Parameters theory, it is argued that the argument of the unaccusative verbs is a theme or patient base-generated in an object position while that of unergative verbs is an agent generated in a subject position, as follows;

- (1) Unergatives: [_{IP} We_i [_{VP} *t_i* ran fast]].
- (2) Unaccusatives: a. [_{IP} The vase_i [_{VP} *t_i* broke *t_i*]].
 b. [_{IP} The accident_i [_{VP} *t_i* happened *t_i* yesterday]].

The basic semantic difference between these verbs determines their different syntactic behaviour. Moreover, it has become clear from recent advances in linguistic investigation that lexicon is much more structured and regular than previous thought. According to Levin and Rappaport Hovav (1995) (L&H, henceforth), unaccusativity is semantically determined but syntactically represented, as in(3) and (4).

- (3) a. break: [[x DO-SOMRTHING] CAUSE [y BECOME **BROKEN**]]
 b. laugh: [x **LAUGH**]
- (4) a. [[x DO-SOMETHING] CAUSE [y BECOME **STATE**]]
 b. [x **PREDICATE**]

With the lexical semantic representation, as in (3, 4), they have suggested that some unaccusatives describe externally caused eventualities consisting of two subevents, causing subevent and central subevent. They also suggest that the binding of the external cause takes place in the mapping from the lexical semantic representation to an argument structure. Just as the binding of the position in an argument structure prevents that position from being projected onto the syntax, so the binding of a position in the lexical semantic representation prevents the projection from being into an argument structure. Since the position is not projected into argument structure, there is no argument associated with this position in the syntax. They schematize the proposed relation between the lexical semantic representation (LSR below) of *break* and the argument structure of both transitive and intransitive forms as follows (L&H 1995: 108):

(5) Intransitive (Unaccusative) break.

LSR [[x DO-SOMETHING] CAUSE [y BECOME
BROKEN]]

	↓	
Lexical binding	∅	
Linking rules		↓
Argument structure		<y>

(6) Transitive break

LSR [[x DO-SOMETHING] CAUSE [y BECOME
BROKEN]]

	↓	
Linking rules		↓
Argument structure	x	<y>

While the unaccusative/unergative distinction exists universally, languages vary with respect to the degree of a syntactic and morphosyntactic differentiation between unaccusatives and unergatives, as in the following Korean examples:

- (7) a. *kkoch beyng - i kkae - jey - ss-ta.*
 flower bottle Nom break Pass Past Dec
 "The vase broke."
 b. *mul - i nok- ass- ta.*
 water Nom melt Past Dec
 "The water melted"

Differently from an English counterpart, a passive marker '-jey-' is attached to the verb stem *kkae-* in the example (7a), while in (7b) *nok-* doesn't have any morphological marker indicating passive voice. Thus, the literal translation of the example (7a) is 'The vase was broken.'

It is generally known that because of the deviant relationship between argument and syntactic structures, L1 and L2 learners make frequent

errors in the usage of English unaccusative verb constructions. The purpose of this paper is to figure out why Korean L1 learners make causative and overpassivization errors in the usage of English unaccusatives, and present a possible solution to address the errors.

2. Causative errors in L1 acquisition

As Montrul (1999) mentioned, in the realm of verbs and argument-structure alternations, even in the L1, acquisition is not error free. Bowerman (1982) and Lord (1979) have documented incorrect instances of intransitive verbs used in transitive configurations with a causative meaning in the speech of their own children:

(8) a. Unaccusatives

paired: C, 2;9: I'm gonna just *fall this on her

unpaired: E, 3;7: I'm gonna put this washrag and *disappear something under the washrag.

b. Unergative: E, 3;0: Don't *giggle me

Bowerman argues that these errors occur because children hear in the input that verbs like *break* and *melt*, for instance, can be used transitively or intransitively. Since the causative/inchoative alternation is not morphologically marked in English, children assume that other intransitive verbs can alternate too.

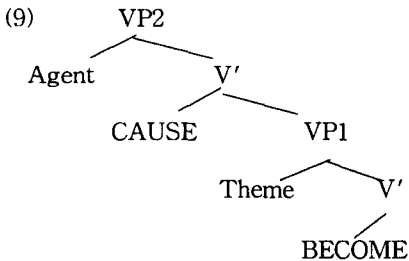
On the other hands, Pinker(1989) argues that children know about the compositional nature of verb meaning and analyse transitive verbs as 'cause to do something'. Thus, children overgeneralize the meaning of CAUSE and add an agent to non-causative verbs, incorrectly deriving lexical causatives of intransitive verbs that do not alternate in transitivity, as in the examples (8).

In the study of agrammatic aphasic cases, Lee and Thompson(2003) showed that the number and type of arguments associated with a verb influence the difficulty of verb production for the patients. They found that verb production difficulty increases as the number of arguments is

increased, with one-place verbs such as *laugh* as in *Chris laughed* being easier to produce than two-place verbs such as *hit* as in *Chris hit the ball*, which in turn are easier than three-place verbs such as *give* as in *Chris gave Mary the ball*. They also argue that another factor that could influence verb production is the thematic roles of verb arguments, and unaccusative verbs present production difficulty for agrammatic aphasic patients because of their complexity of arguments structure and syntactic derivation.

Thus, it can be said that in the acquisition of L1, the typical errors in the usage of English unaccusative verbs are 'causative errors' and production difficulties.

Though cross-linguistic evidence is not enough, as Montrul (1999) and Ju (2000) argue, we can say that causative errors or overgeneralization of causative and passive constructions for unaccusative verbs are possibly universal in L1, and those errors may come from the complex relationship between their thematic and syntactic structures. The complexity can be represented as a lexicalist point of view as in L & H (1995) mentioned in the previous section, or as the following X-bar template from a purely syntactic point of view (cf. Radford 1997, Montrul 1999).



For the transitive verbs, the subject appears under the node of AGENT, the verb CAUSE, and the object Theme. For the unaccusatives, the subject appears under the Theme, and the verb as the sister of BECOME.

3. Causative and Overpassivization Errors in L2 Acquisition

Many linguists (Mortul 1999, Zobl 1989, Ju 2000, among others) argue that L2 learners are aware of the argument structure distinction between unaccusative and other types of verbs. It is shown, though, that learners have difficulty determining the range of appropriate syntactic realizations of the distinction in question, and that this can persist into near-native levels of proficiency. Zobl(1989) notices, in a corpus of the written English of a group of students from various L1 backgrounds, that some speakers were producing ungrammatical verb-subject orders with unaccusative verbs as in (27), and were overgeneralizing passive verb morphology to unaccusative verbs as in (28) (examples from Zobl 1989: 204):

- (10) a. I was just patient until dried my clothes.
 b. Sometimes comes a good regular wave.
- (11) a. My mother was died when I was just a baby.
 b. The most incredible experience of my life was happened 15 years ago.

The problem concerning learning these verbs becomes even more enigmatic, given that, with respect to their syntactic behaviour, these verbs do not form a homogeneous class either: (1) a change of state - transitive counterpart (*break, melt*, etc.), (2) a change of state - no transitive counterpart, but lexically unrelated causative counterpart (*die, fall* --- *kill, make fall*, etc.), and (3) existence and directed motion (*leave, enter*, etc.)--- no lexical causatives (either related or unrelated).

Many researchers (e.g., Balcom 1997, Hirakawa 1995, Hubbard 1994, Yip 1995, Zobl 1989, Ju 2000) also have noted that L2 learners of English appear to overextend passive structures to a class of unaccusative verbs, as follows:

- (12) *During the early 1900s, a black community *was thrived* in Los Angeles.
- (13) *During the second world war, many blacks migrated to LA from the south which *was suffered* industrial devastation.
(Ju 2000: 86 (1)-(2))

Thus, it can be said that the errors in the usage of English unaccusative verbs as L2 are 'causative errors' as in (10a) and overpassivization errors as in (11), (12), and (13). It is also can be said that the two error types are closely related, because if learners feel a verb is transitive, they could make the sentence passive voice.

Ju (2000) argues that of particular interest in the overpassivization phenomenon is the fact that these errors do not simply stem from a lack of L2 structural knowledge. She presents some examples from an essay written by an advanced Korean learner of English, as follows:

- (14) *Newly Industrialized Countries (NICs) as said to have been succeeded ...

The overpassivization phenomenon is consistent with Yip (1990, 1995), who reported on Chinese learners of English who, even when advanced, had difficulty in acquiring the correct passive uses of these verbs.

4. Previous Studies of Overpassivization Errors

As Ju (2000) argues and I will show, the explanations on the overpassivization phenomena in current theories can be summarized into three different approaches: transitivity hypothesis, postverbal NP movement hypothesis, and cognitive factor hypothesis. Though the three hypothesis share some common argumentations, each of them suggests and emphasizes a specific argumentation as the main factor for the overpassivization of the unaccusative verb constructions.

For transitivity hypothesis, examining overpassivization errors by Chinese learners of English, Yip (1990:53) hypothesizes that learners

somehow interpret unaccusatives as underlying transitive. Yip interpreted the phenomena as showing that the learners treat unaccusatives as transitives, adding objects to them; hence, unaccusatives can be passivized. Thus, because the learners consider all or most of the unaccusative verbs to be transitive and extend the passive forms to all or most of the unaccusative constructions. This explanation can provide a crucial support for the following cases;

- (15) a. The man broke the vase.
 b. The vase was broken. (not *The vase broke.*)
 (16) *The man was emerged suddenly.

Because learners hypothesizes both of the verb *break* and *emerge* are transitives, they think that (15b) and (16) are grammatical.

For the Postverbal NP Movement Hypothesis, it is hypothesized that learners acquire a lexical rule by which the postverbal NP is moved to a subject position. Once learners acquire the passive rule, the lexical rule is subsumed under the passive rule. (cf. Zobl 1989, Balcom 1997, Kellerman 1979, among others) Thus, learners extend the rule to unaccusatives so that all or most of the structures which have the movement rule would have passive forms.

On the other hands, Ju (2000) presents Cognitive Factor Hypothesis. She argues that despite the similarity between unaccusatives and passive sentences in having nonagentive subjects, they differ in whether or not agents are implied semantically. In passives, agents are merely omitted and this is marked by passive morphology (be+ past participle). In unaccusatives, no agent exists, although it may be conceptualizable through discourse-pragmatic information about the speech events.

- (17) a. The car disappeared.
 b. The accident happened.

She argues that unlike passives, neither sentence in (17) has an implied agent. The difference between the two sentences, however, is the saliency

of the source of causation. Example (17a) can have a pragmatically conceptualizable agent in that cars do not move by themselves; people drive cars. In (17b), however, it is not clear what is making the event occur; by itself, the sentence implies no pragmatically conceptualizable agent.

She concludes that the problem of overpassivization does not lie entirely with the lexicosemantics of the verbs. Rather, the results of her experiment indicate that cognitive factors share a key role in the acquisition of unaccusatives. Thus, she argues that L2 learners choose passivized unaccusative sentences as more grammatical in externally caused events than in internally caused events.

5. Limitations

The transitivization and the NP movement accounts do not address the different rates of error production within the same class. As I will show, there is substantial discrepancy among unaccusatives in terms of accuracy of judgement on ungrammatically passivized unaccusatives.

Following L&H's (1995) lexicalist point of view, Ju (2000) has classified the unaccusative verbs into two different categories: (1) unaccusatives representing externally caused events, and (2) unaccusatives representing internally caused events. Based on the following experimental data, she argues Chinese learners of English as L2 are more likely to passivize unaccusatives in externally caused events than in internally caused events. In other words, she argues that learners make more overpassivization errors on the verbs like *close*, *break*, and *freeze* than *turn*, *decrease*, and *grow*, because learners perceive that the former verbs have the external causation, as we can see in the following results of Ju's experiment.

Table 1. Number of learners who made overpassivization errors
(Ju's table 2&3)¹⁾

Verb	External causation	Internal causation
bounce	14	6
break	20	12
change	10	6
close	25	10
decrease	4	2
drop	8	3
dry	16	8
freeze	18	11
grow	4	1
melt	16	4
roll	12	3
sink	6	7
turn	8	1

appear	9	4
die	12	4
disappear	13	7
emerge	15	7
vanish	15	8

She also, based on the second part of the Table1, argues that there is no significant difference between unaccusatives with transitive counterparts and those without.

Ju's findings support Yip's (1995) transitivization hypothesis partially because they show that learners are more likely to passivize unaccusatives when an agent or cause is conceptually available. However, differently

1) Ju uses [+transitive] for the upper part verbs which have transitive usage and [-transitive] for the lower ones that do not have transitive usage.

from Yip's argument, Ju's argument shows the fact that the transitivization or passivization does not apply to all unaccusatives uniformly.

On the other hands, though Ju's findings show the different error rates among unaccusatives successfully, the cognitive factor account does not address the different rates of error production within the same class verbs that have external causation or agent, such as *break*, *freeze*, *bounce*, etc.. Moreover, as I will show in the following section, the error rates found among Korean learners of my research are different from those of Ju's.

Here I propose Natural Learning Progress Hypothesis meaning overpassivization or causative usage of unaccusatives is a very natural phenomenon and thus learners should be properly guided while learning any kind of peculiar verbs like unaccusative verbs in English. If learners are not properly guided, they cannot build a proper acquisition device for L2, and became confused to use the verbs in a very explainable way. I argue that Ju's Cognitive Factor Hypothesis, Movement Hypothesis, and/or Transitive Hypothesis are not enough to explain the overpassivization phenomenon of Korean learners of English as L2.

6. Method

6.1 Subjects

This experiment was conducted of 60 Korean students. Included in the experiment were all undergraduate students and about 50 graduate students majoring in English. So, we can roughly say that the subjects' proficiency level of English was medium high, though it is not homogeneous.

6.2 Materials

To compare my results with Ju's (2000), I have used the same

questionnaire as Ju's. Also, to support my argumentation, I have completely conducted a survey of the usage of unaccusatives in the 6 middle and 4 high school English textbooks published in Korea.

7. Results

To compare the results, we scored the questionnaires in terms of errors. It is true that some students may not understand the questionnaires correctly, but we asked students to answer quickly without contemplation of the questionnaires long time. As Ju did, Table 2 summarizes the number of learners who made overpassivization errors on each of the 18 verbs.

Table 2.

Verb	External causation	Internal causation
bounce	21	18
break	41	19
change	20	16
close	30	10
decrease	18	11
drop	13	7
dry	23	12
freeze	39	11
grow	13	11
melt	14	8
roll	22	18
sink	14	11
turn	17	6

appear	20	14
die	19	15
disappear	32	17
emerge	27	23
vanish	35	24

Here I also summarize the results of the usage of unaccusatives in textbooks of middle and high schools. I have checked 6 middle and 4 high school English textbooks, which were written by two different author groups.

Surprisingly, in the 6 middle school English textbooks, only 9 unaccusative verbs have appeared; *change, open, break, die, fall, close, break, sink, dry* and *appear*. However, only *sink, appear, and die* are being used as intransitively, and other verbs as only transitively. For example, *When Jenny opened the door, John was sleeping at the table. Then they dry their hair with a towel, and It was broken, Because an iron ship sank in the water a few years ago*, etc. The unaccusative usage was there only once (3 sentences), and there were only 10 sentences using the unaccusatives totally, intransitively or transitively.

There are 10 unaccusative verbs in the high school textbooks: *decrease, change, appear, die, freeze, disappear, emerge, open, change, and break*. However, only *disappear, emerge, die, and appear* are used as intransitively. For example, *The conductor appears on stage, The flowers will die, Scholars think that English, the oldest form of English, somehow emerges from the mid around A.D. 700*, etc.. The verb *freeze* was used only once as follows; *I grew weak, as though my blood had frozed*. Other unaccusative verbs are being used only as transitive verbs.

8. Discussion

The findings of this study suggest that the Cognitive factor hypothesis or Transitive verb hypothesis does not suffice to explain the error rate of overpassivization in Korean learners of English. The descending order of the number of learners who made overpassivization errors is different from that of Ju's. The descending order of this study is as follows:

- (18) break(41) > freeze (39) > vanish (35) > disappear (32) > close (30) > emerge (27) > dry (23) > roll (20) > bounce (21) > change, appear (20)

Here, I argue that three factors influence the acquisition of English unaccusatives for Korean learners: morphological shape of Korean counterparts of English unaccusatives, the learning process of the unaccusatives, and NP movement hypothesis.

First of all, the morphological shapes of Korean counterparts are different from those of English unaccusatives. For example, *kkaeta* 'break' is used only transitively, and when it is used as unaccusative, it has the passive marker *-ji-* as '*kkae-ji-ess-ta* 'be broken'. Such verbs as *tat-ta - tat-hi-ess-ta* 'close', 'be closed', *eyl-ta - eyl-i-ess-ta* 'open', 'be opened' have the same morphological passive marker *-hi-* or *-i-* when they are used intransitively. In other words, because they are not unaccusatives morphologically, Korean learners translate their English counterparts as a passive-meaning form.

Thus, Korean learners want to use the English unaccusatives safely and extend the transitive usage and passive forms. As L&H (1995: 87) presents, even English native speakers extend the transitive usage to the unaccusative verbs that do not have transitive usage. For example, the verb *deteriorate* is generally used only intransitively, but it is used as *The pine needles were deteriorating the roof*. In other words, Korean learners tend to overgeneralize the transitive usage of English unaccusative verbs, because many Korean counterparts of English unaccusatives are used with passive marker or only transitively.

Also, the verbs *eyl-ta* 'freeze' and *saraci-ta* 'disappear or vanish' are usually used as resultatively. For example,

- (19) a. nae son-i eyle -bey- leyss- ta
 my hand freeze Res Past Dec
 '(literally) my hands became frozen',
- b. nun -i saracey-bey- leyss- ta
 snow Nom disappear Res Past Dec
 (literally) 'Snow became disappeared'.

In other words, they are used usually in a resultative form. Thus,

Korean learners tend to feel the English counterparts should be used transitively or passively, and they try to extend this tendency to most of the English unaccusative usages. Also, the following (20a) expresses stative or resultative meaning, and (20b) is used more frequently as the same meaning as (20a):

- (20) a. mul -i eyl - ess -ta
 water Nom freeze Pas Dec
 'The water froze' (literally) 'The water became ice'
- b. eleum -i eyl - ess - ta
 ice Nom freeze Pas Dec
 'The ice froze' (literally) 'The water became ice'

The same phenomena can be applied to the verbs *nathana-ta* 'appear or emerge', *saraci-ta* 'disappear or vanish', and *balsaengha-ta* 'happen'. Here, it should be reminded that one of the discourse-semantic purposes in passive voice is to make the sentence stative. In other words, Korean speakers feel the sentence with unaccusatives as stative and tend to render the sentence a passive.

Though L1 influences the acquisition of English unaccusatives in many verbs, the error rates of the verbs *grow*, *sink*, and *drop* are lower than those of *break*, *freeze*, and *disappear*. This results is very similar to that of Ju's. Korean learners passivize unaccusatives more frequently in externally-caused events than in internally-caused events. In other words, as Ju (2000) argues, Korean learners may appear to perceive an agent or a direct cause in externally-caused speech events, and they may seem to feel more willing to passivize unaccusatives in such contexts. So, it can be said that Ju's argumentation that learners are less likely to overpassivize unaccusatives in internally-caused events that in externally-caused events is still valid.

The overpassivization errors are found in the near-native level of proficiency, but their rate decreases (cf. Hirakawa 1995). This reflects the fact that an acquisition device works properly through the process

of generalization and correction. Moreover, L1 and/or L2 learners have production difficulties for the constructions which have more complex syntactic structures than simple constructions.

9. Conclusion

The results of this study show that Korean learners who have mid-high level English proficiency make overpassivization errors, and the rate is very high. The overpassivization phenomena results from the interplay of L1 influence, lack of proper input at the beginning of their English acquisition, and complex syntactic movement. I argue that Ju' (2000) Cognitive Factor belongs to one of the morphological characteristics of English and Korean. The verbs which have strong transitivity or externally-caused agent explicitly/implicitly tend to be expressed transitively or in a passive way through the process of object promotion.

Though Korean learners may follow very natural L2 learning process, the error rate can be reduced through the proper input process of English verbs. Because unaccusatives have a more complex syntactic process and different morphological shapes, a lot more materials should be supplied until the learners have native-like proficiency of English.

References

- Balcom, P. (1997). Why is this happened? Passive morphology and unaccusativity. *Second Language Research* 13(1), 1-9.
- Bowerman, M. (1982). Evaluating competing linguistic models with language acquisition data: implications of developmental errors with causative verbs. *Quanderni di Semantica* 3, 5-66.
- Burzio, L. (1986). Italian syntax: a government and binding approach. Dochrecht: Reidel.
- Hirakawa, M. (1995). *L2 Acquisition of English Unaccusative Constructions*. In D. MacLaughlin & S. McEwen (eds.), Proceedings of the 19th

- Boston University conference on Language Development (p. 291-302). Somerville, MA: Cascadilla Press
- Hubbard, P. L. (1994). Nontransformational theories of grammar: Implications for language teaching. In t. Odlin (Ed.), *Perspectives on pedagogical grammar* (p. 49-71). New York: Cambridge Univ. Press.
- Ju, M K. 2000. Overpassivization Errors by Second Language Learners. *SSLA*, 22, 85-111.
- Kellerman, E. (1979). Transfer and non transfer: Where we are now. *SSLA* 2, 37-57.
- Lee, M. and C. Thompson (2004). Agrammatic aphasic production and comprehension of unaccusative verbs in sentence contexts. *Journa of Neurolinguistics* 17, 315-330.
- Levin, B and Rappaport Hovav, M. (1995). *Unaccusativity: At the syntax-lexical semantics interface*. Cambridge, MA: MIT Press.
- Lord, C. (1979). Don't you fall me down: children's generalizations regarding cause and transitivity. *Papers and Reports on child language development* 17. Stanford, CA: Stanford Univ.
- Montrul, S. (1999). Causative errors with unaccusative verbs in L2 Spanish. *Second Language Research*, 15. 191- 219.
- Pinker, S. (1989). *Learnability and cognition: the acquisition of argument structure*. Cambridge, MA: MIT Press.
- Purlmutter, D. (1978). Impersonal passives and the unaccusative hypothesis. Procceddings of the Fourth Annual Meeting of the Berkeley Linguistic Society. BLS, Univ. of California, Berkeley, 157-89.
- Radford (1997). Syntactic theory and structure of English: A minimalist approach. Cambridge: Cambridge Univ. Press.
- Rosen, C. (1984). The interface between semantic roles and initial grammatical relations. In A. Zaenen (Ed.), *Subjects and orther subjects* (p.38-77). Bloomington: IULC.
- Yip, V. (1990). Interlanguage ergative constructions and learnability. *CUHK Papers in Linguistics* 2 (p.45-68). Hong Kong Chinese University.

- Yip, V. (1995). *Interlanguage and learnability: From Chinese to English*. Amsterdam: Benjamins.
- Zobl, H. (1989). Canonical typological structure and ergativity in English L2 acquisition. In Gass, S. and Schachter, J. (eds.), *Linguistic perspectives on second language acquisition*. Cambridge: Cambridge Univ. Press, 203-221.
- Middle school English textbooks (3) (from freshman to senior year): (1) Lee, B. K., Hong, I. P., Lim, S. H., and Edward, G. D. Seoul: Daeil Publishing Com. (2) Lee, B. M., Park, K. H., Han, J. K., Jeong, J. H., and van Vlnk. Seoul: Chenjae Education Publishing Com.
- High school English textbooks (4) (from second to senior year): (1) Lee, M. S., Hwang, J. R., Kim, Y .S., Yang, H. K., kim, J. W. and Yeom, S. M. Seoul: Jihaksa. (2) Lee, H. S., Jeon, B. M., Lee, Y. S., Shin, D. I., Kim, S. S., Kim, J. H. and Yu, S. I. Seoul: Hankook Education Media.

Jae Min Kim
Department of English
College of Humanities
Chonbuk National University
Jeonju, 561-756, Korea
Phone: +82-(0)63-270-3199
Email: jmkim@chonbuk.ac.kr

Received: 30 September, 04

Revised: 28 October, 04

Accepted: 3 December, 04