

Acquisition of the Distinction between Particles and Prepositions by Korean Learners of English

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This study investigated the separable and inseparable phrasal verbs in English by Korean learners of English. The target structures are: for separable phrasal verbs, *bring in the chair* and *bring the chair in* and for inseparable phrasal verbs, *sit in the chair* and the ungrammatical structure **sit the chair in*. Native speakers were more precise in judging the separability of phrasal verbs than were Korean learners. In the three kinds of acceptability test, learners were more frequently correct when using inseparable phrasal verbs than when using separable phrasal verbs; this asymmetrical performance suggests that the learners can distinguish separable phrasal verbs from inseparable phrasal verbs. When using separable phrasal verbs, the learners show preference for the more frequent word sequence than the less frequent one and are sensitive to the corpus frequency. Pedagogical implications are discussed based on input sensitivity.

Key words: phrasal verbs, preposition vs. particle, L2 acquisition

INTRODUCTION

In English, certain prepositions customarily follow certain verbs. The combination of a verb and a preposition constructs a phrasal verb that functions as a single lexical and semantic unit (Darwin & Gray, 1999; Quirk, Greenbaum, Leech, & Svartvik, 1985; Side, 1990). Although phrasal verbs

share many characteristics with regular verbs, there is one syntactic characteristic peculiar to transitive phrasal verbs: sometimes the preposition can be separated from the verb by the direct object and sometimes it cannot. (Celce-Murcia & Larsen-Freeman, 1999). When a preposition can be put either before or after the object of the verb (e.g., *bring in NP* or *bring NP in*), it is called a *particle*, and the phrasal verb with which the particle is associated is called *separable*. In contrast, when a preposition occurs only before the object, not after (e.g., *sit in NP*, **sit NP in*), the phrasal verb is called *inseparable*.

More specifically, in (1a), *call up* is a phrasal verb equivalent to the one-word verb *telephone*. The NP object *my mother* intervenes between *call* and *up*, separating the phrasal verb as in (1b). In this case, *up* is a particle. On the other hand, in (2a), *run into* meaning *see* can not be separated by the NP object as in (2b), which is ungrammatical. Here, *into* is a preposition. For convenience, in this paper, the term ‘adposition’ will be used to refer to both particle and preposition in the phrasal verbs.

- (1) Separable phrasal verbs (verb + particle)
 - a. I *called up* my mother.
 - b. I *called* my mother *up*.
- (2) Inseparable phrasal verbs (verb + preposition)
 - a. Laurie *ran into* an old friend.
 - b. * Laurie *ran* an old friend *into*.

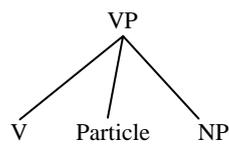
Syntactically, (1b) is called the normal order; (1a) is called the shifted order¹. Separable phrasal verbs with the shifted order have a severe restriction: The particle cannot be put next to the verb only when the object is a pronoun. Sentences (3) and (4) are examples.

¹ For an alternative perspective that assumes (1a) as the basic structure and (1b) as the shifted structure, see (Farrell, 2005). The verification of basic structure and shifted structure of phrasal verbs is beyond the scope of this paper.

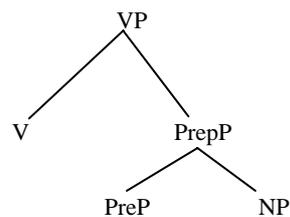
- (3) a. Joe brought *Marsha* in.
 b. Joe brought in *Marsha*.
 (4) a. Joe brought *her* in.
 b. *Joe brought in *her*.

Because of the possibility of putting particles between transitive verbs and their objects, separable phrasal verbs with the shifted order and inseparable phrasal verbs yield similar sequences of words, as shown in (5 a-b). Diagram (5a) shows the shifted particle structure, which is derived by moving the NP in the basic structure to the right of the particle.

(5) a. Shifted particle structure



b. Intransitive prepositional structure



Given the similar sequence of words in (5), the sentences in (6) can illustrate the kind of practical problem that can arise.

- (6) a. Nina brought in the armchair.
 b. Nina sat in the armchair.

While sentence (6a) shows a separable phrasal verb *bring in* with the shifted order, (6b) presents an inseparable phrasal verb *sit in*. Here, *in* is a particle in (6a) and a preposition in (6b). Thus, (7a), which has a separable phrasal verb occurring with a particle is grammatically correct, while (7b), which has an inseparable phrasal verb occurring with a preposition is ungrammatical.

- (7) a. Nina brought the armchair in.
b. *Nina sat the armchair in.

For each sentence in (6), an important question is how speakers distinguish separable phrasal verbs from inseparable phrasal verbs when they have similar sequences of words.

The present study of the use of separable and inseparable phrasal verbs evaluates whether L2 learners can distinguish grammatical sentences like (6a,b) and (7a) from ungrammatical sentences like (7b). The crucial point is that the phrasal verb in (6a) is optionally separated by placing the NP object between verb and particle as in (7a). By contrast, the phrasal verb in (6b) should not be separated as the ungrammatical (7b) indicates. L2 learners have difficulty whether particular phrasal verbs can be separable or not.

The problem is that the shifted particle structure and intransitive prepositional structure show the same word order construction: 'Verb + adposition + NP object'; i.e., the particle 'in' of *bring in the chair* and the preposition 'in' of *sit in the chair* appear identical when the noun object occurs after the phrasal verbs. However, the 'in' of *bring in the chair* is a particle, so separation between the verb and particle is allowed (*bring the chair in*), whereas 'in' of *sit in the chair* is a preposition, hence separation is not permissible (**sit the chair in*). Interestingly however, when the NP object is replaced by a pronoun object, only one option is permissible for the pronoun object, even in separable phrasal verbs (i.e., *bring it in* vs. **bring in it*).

The present paper investigates whether L2 learners of English can understand that both *bring in the chair* and *bring the chair in* are grammatical for separable phrasal verbs, whereas only *sit in the chair* is grammatical for inseparable phrasal verbs. Although both separable and inseparable phrasal verbs are instructed in L2 classrooms abundantly, teaching how to distinguish particles from prepositions (i.e., the contrast between (6a vs. 7a) and (6b vs. 7b)) is difficult, if not impossible. In other words, for learners to be able to distinguish (7a) from (7b) involves *learnability* problem (Baker, 1979; Pinker,

1989) in L2 acquisition.

Therefore, the purpose of the present study is to see whether L2 learners can successfully determine the separability of English phrasal verbs and how their performance differs from native English speakers.

Considering that L2 learners are not given any rules to distinguish particles from prepositions, and are subsequently required to memorize the distinction between them case by case, without being provided with the indirect negative evidence² of **sit the chair in* (cf. *bring the chair in* is valid, thus, present in the positive evidence), it is important to examine whether L2 learners can distinguish particles from prepositions in learning phrasal verbs of English.

Korean learners of English were tested with separable and inseparable phrasal verbs both in grammatical and ungrammatical constructions. Three tests were used to ask them to determine the grammaticality of sentences. Native speakers of English served as a control group in one of the tests. The performance of the Korean learners was compared with that of native speakers and their own performances in the three different tests.

LITERATURE REVIEW

Although many studies have dealt with phrasal verbs in English (cf. Dagut & Laufer, 1985; Hulstijn & Marchena, 1989; Laufer & Eliasson, 1993; Liao & Fukuya, 2004 for avoidance of phrasal verbs by second language learners; Brinton, 1988; Pelli, 1976; Side, 1990 for categorizing the aspectual meaning of particles to learn the meaning of phrasal verbs), very few studies have examined language learners' difficulty in assessing the separability of phrasal verbs (i.e., distinction between particles and prepositions).

O'Dowd (1994) notices a word can behave as a preposition in some contexts and a particle in others. O'Dowd offers syntactic tests to distinguish

² It is suggested that if the learner noted that certain forms did not occur in the input, that could serve as a kind of evidence that such forms were ungrammatical (e.g., Chomsky, 1981). This is called indirect negative evidence (Pinker, 1989, p. 14).

prepositional use from particle use in a phrasal verb. Below are some of the tests that have been applied (adapted from O’Dowd, 1994, p. 19, cited in Celce-Murcia & Larsen-Freeman, 1999, p. 429).

Only prepositions (not particles) allow:

- 1) adverb insertion (We turned quickly off the road./*We turned quickly off the light.),
- 2) phrase fronting (Up the hill John ran./*Up the hill John ran.), and
- 3) wh-fronting (About what does he write?/*Up what does he write?)

Only particles (not prepositions) in separable phrasal verbs allow:

- 1) passivization (The light was turned off./*The road was turned off.),
- 2) verb substitution (The light was extinguished. (= the light was turned off.), and
- 3) NP insertion (We turned the light off./*We turned the road off.).

O’Dowd (1994) suggests that the syntactic roles of particles and prepositions are evolving; that is, some of the items O’Dowd calls “Ps” are becoming more particle-like and some more preposition-like. She rejects viewing phrasal verbs and verbs taking prepositions from a strict categorical dichotomy perspective. Instead, she argues that they are on the opposite ends of a continuum. For example, some Ps are used more as prepositions (e.g., *with, of, for, from*); whereas others are used more as particles (e.g., *up, out, down, away, back*), and there are some Ps in the middle (e.g., *through, around, over, off, across, along, etc.*)

Used more as prepositions	_____	Used more as particles
with, of, for , from	to, in , on , about, by	through, around, over, away, back
		up, out, down, away, back
		off, across, along

Just as Hopper and Thompson (1984) argued that the discourse contexts play a decisive role in determining whether a particular form is a noun or

verb, O'Dowd (1994) hypothesized that it is impossible to determine whether Ps are particles or prepositions without observing them in context.

Celce-Murcia and Larsen-Freeman (1999) suggested that a preposition makes a natural unit with the NP object that follows it, whereas a particle makes a natural unit with the verb that precedes it. For instance, *wh*-fronting can be applied to *About what does he write?*, which fronted a natural unit consisting of a preposition and its object. However, *wh*-fronting cannot be applied to **Up what does he write?* It is impossible to separate the particle *up* from the verb *write*, because *write up* forms a natural unit as a phrasal verb.

Celce-Murcia and Larsen-Freeman (1999) account for the difference between an inseparable phrasal verb and a separable verb by using the phonological test. A particle may receive stress (e.g., *He loòked úp the word.* (separable phrasal verb)), whereas a preposition usually doesn't (e.g., *He loòked u p the road.* (in separable phrasal verb)). Although this test often works to disambiguate prepositions from particles, there are exceptions where the preposition is stressed (e.g., *He loòked úp the road, not down.*), thus, the phonological test is not always reliable (p. 451).

Another problem with the phonological test is that, in general, ESL/EFL learners have been taught to stress the content word. Therefore, they tend to stress the head verb rather than the particle, resulting in wrong stress assignment (e.g., **I plánned to túrn it do wn.*) (Dickerson, 1994)

Although O'Dowd (1994) and Celce-Murcia and Larsen-Freeman (1999) provide understandable accounts on the distinction between the use of adpositions as prepositions or particles in phrasal verbs, they primarily provide theoretical linguistic accounts. Published empirical studies regarding the actual performance on separability of phrasal verbs are scarce. This is true, to the best of my knowledge, with respect to the performance of L2 learners.

Thus, this study will help understand how L2 learners distinguish particles from prepositions, a distinction which is very difficult to acquire because of the similar or identical form of these verbs. In particular, this study investigates the performance of Korean learners of English, whose native language is a non-Germanic language that lacks phrasal verbs.

THREE TESTS OF SEPARABILITY

There are three tests to distinguish particles from prepositions (Baker, 1996).

The Split Test

This test assesses the separability of phrasal verbs by splitting the phrasal verbs into a [V+ NP+ Particle/Preposition] construction.

If a certain verb truly allows a particle along with a direct object, then putting the particle in the normal position after the direct object should yield an acceptable sentence. The simple experimental sentences in (8) demonstrate the process (Baker, 1996, p. 199).

- (8) a. Nina brought the armchair in.
b. * Nina sat the armchair in.

Sentence (8a) shows that the phrasal verb *bring in* can be used with a following direct object and a particle. Thus, *bring in* is a separable phrasal verb with a [V + NP + Particle] construction. On the other hand, (8b) shows that *sit* cannot be used with a following direct object and a preposition. Thus, it is an inseparable phrasal verb with a [V + NP + *Preposition] construction.

The Pronoun Substitution Test

The second test explores the possibility of allowing a pronoun object after a particle or a preposition. A particle cannot come between a verb and a pronoun object. Thus, whenever a phrasal verb followed by a pronoun object appears to be grammatical, the sequence can only be an inseparable prepositional phrasal verb, otherwise the phrasal verb is separable and occurs with a particle. The test replaces the noun phrase in each example in (8) with a pronoun and put the pronoun object at the end of the sentence. Sentences in

(9) show the contrast between particle and preposition followed by the pronoun object.

- (9) a. *Nina brought in it.
b. Nina sat in it.

The [V + *Particle + Pronoun] construction is not allowed in (9a), but the [V + Preposition + Pronoun] construction is allowed in (9b). Therefore, only the inseparable phrasal verbs as in (9b) can have the pronoun object.

The Relative Clause Test

For some speakers of English, the Pronoun Test is difficult to apply, since it requires a subtle judgment. A perhaps simpler test relies on properties of a construction, the bound relative clause (RC). In an inseparable phrasal verb with a preposition, it is grammatical to construct a relative clause which has the preposition at the beginning of the relative clause, whereas in a separable phrasal verb, this construction is ungrammatical: a particle can never stand at the beginning of this construction. This process is illustrated in (10) and (11), in each of which (a) is a sentence and (b) is a noun phrase modified by a relative clause based on that sentence (Baker, 1996, p. 200).

- (10) a. Nina brought in the chair.
b. *the chair [in which Nina brought]
- (11) a. Nina sat in the chair.
b. the chair [in which Nina sat]

The acceptability of (11b) shows that *in the chair* is a prepositional phrase. By contrast, the unacceptability of (10b) shows that the same sequence is not a prepositional phrase. This test yields the same conclusion as the preceding tests: *in* is a particle in (10a), and a preposition in (11a). The [V + Preposition + RC] construction is acceptable, but the [V + Particle + RC] construction is

not. These tests are successful in the cases described above, but they may fail if the meaning of the phrasal verb is semantically ambiguous.

Consider the following example.

(12) John looked over the newspaper.

To determine whether *over* is a particle in (12), we could construct a sentence in which the order of particle and noun phrase is reversed, applying the “Split” test.

(13) John looked the newspaper over.

The acceptability of sentence (13) shows that *look* can take a direct object and a particle and thus this test indicates that *look over* in (12) is a separable phrasal verb. However, applying the Pronoun Substitution test, by replacing *the newspaper* with a pronoun gives a different conclusion.

(14) John looked over it.

The acceptability of this sentence shows that *look over* can also be an inseparable phrasal verb with a preposition in it. To resolve this ambiguity, the Relative Clause test can be applied to determine whether *over* is indeed a preposition.

(15) the newspaper [over which John looked]

Here again, the acceptability of the result indicates that *look over* can occur as an inseparable phrasal verb. Thus, (12) can have either of two structures. This structural ambiguity is associated with corresponding semantic ambiguity: John can be examining the newspaper (the interpretation that goes with the separable particle structure), or he can be looking over the top of the newspaper (the interpretation that goes with the inseparable prepositional

structure).

(16) Effects of semantic ambiguity on assessment of separability

a. John looked over the newspaper. (separable: *over* is a particle)

Meaning: John examined the paper.

b. John looked over the newspaper. (inseparable: *over* is a preposition)

Meaning: John looked over the top of the newspaper.

Thus, some phrasal verbs can have more than one meaning, and can be separable in one when they have one meaning and inseparable when they have another. One particular consequence is that the three tests may not always yield the same conclusion. Thus, an affirmative result on the particle test should not be used to justify a negative answer to the preposition test. Similarly, an affirmative result on the preposition test does not imply that the sentence cannot have the particle structure. Because such discordance is possible, the three tests should be conducted separately. Table 1 summarizes the conclusions reached by results of each test type.

TABLE 1
Summary of Conclusions Reached Using Each Test Type

Test Type	Outcome by Phrasal Verb (PV) Type	
	Separable PV	Inseparable PV
Split	Grammatical	Ungrammatical
Pronoun substitution	Ungrammatical	Grammatical
Relative clause	Ungrammatical	Grammatical

INSTRUCTIONAL EFFECTS IN THE EFL ENVIRONMENT

In the EFL classroom, the separability of phrasal verbs is instructed regarding whether a phrasal verb consists of a particle or a preposition. Specifically students are instructed that if a phrasal verb contains a particle, the particle can either come between the verb and its direct object, or can follow the direct object. However, a particle cannot come between a verb and

an object when the object is a pronoun. In other words, learners are instructed that a particle can either precede or follow an NP object, but can only follow a pronoun object for a separable phrasal verb. In contrast, an inseparable phrasal verb with a preposition is instructed to allow a preposition to come immediately after the verb, regardless whether the object is a NP or a pronoun.

Lists of separable phrasal verbs and inseparable phrasal verbs are given to be memorized. The point is that learners are not taught how to distinguish a particle from a preposition in the classroom. Teachers tell the students that they must just memorize them, thereby implying that there is no system for distinguishing particles from prepositions in similar sequence of words. The composition of verb and particle/preposition seems completely random (Side, 1990). The problem is that it is difficult to tell *in of bring in the chair* from *in of sit in the chair* and that they are expected to understand without explicit instruction that although *bring the chair in* is acceptable, *sit the chair in* is not.

Crucially, although the three tests mentioned above can determine whether a phrasal verb is separable, each test requires an understanding of the grammar constraining the possible composition of a phrasal verb's components. It can be argued that explicit instruction on the grammar may be aided by sufficient exposure to L2 input, resulting in greater ability to distinguish grammatical structures from ungrammatical structures. Greater exposure to the structures examined in the tests increases the likelihood of making a correct decision on a particular structure. Conceivably, the results of the three tests might be different as a consequence of learners' differing exposure to L2 input (cf. Bley-Vroman, 1997). Learners will show clearer results in some tests than in others, depending on the subtlety of the judgment of the structure used in the test.

RESEARCH QUESTIONS

Considering these possibilities, the following research questions are formulated

to investigate the ability of Korean learners of English to assess the separability of phrasal verbs:

1. Do Korean learners of English know whether a phrasal verb is separable?
2. Do Korean learners of English know whether a phrasal verb is inseparable?
3. Does Korean learners' behavior, if any, reflect the way their performance is measured?

METHOD

Participants

There were four groups of participants in this study. The first group consisted of 15 native speakers of English, who were all English instructors at universities in Korea; the other three groups consisted of a total of 78 Korean learners of English: 25 took Test 1, 27 took Test 2, and 26 took Test 3. The Korean learners of English were undergraduate students who all majored in either science or technology at a university in Korea. At the time of the data collection, the proficiency level of the learner participants ranged from low intermediate to high intermediate based on intramural placement test results which measured mainly speaking and writing abilities.

Materials

Preliminary assessment: To ensure that Korean participants were in general aware of the meaning of the phrasal verbs used in the main test, a preliminary translation test with the test items was given³. In this test, participants were

³ An anonymous reviewer was curious whether the participants had been instructed about the phrasal verbs before they took the test. They had not been taught before the test; that is the reason why I ran the preliminary test prior to the main test to ensure that participants had the knowledge of the phrasal verbs and the results showed that

presented with the same 20 test sentences as in the main test, but with the phrasal verbs underlined, and asked to translate the underlined expression into Korean in the blank given at the end of the sentence as in (17) and (18). The purpose of this preliminary assessment was to confirm that the learners should have the knowledge of the phrasal verbs tested first before taking the main test.

(17) Separable particle phrasal verbs:

Sue crossed out a mistake on the form. _____

(18) Inseparable prepositional phrasal verbs:

My mother ran into her old friend on the street. _____

Main Test: The same 20 phrasal verbs asked in the preliminary translation test were used in the main test, which consisted of three tests. In each, all sentences were rearranged according to either the Split test, the Pronoun Substitution test or the RC test. Students were asked to judge whether or not the given sentence was grammatical. The 10 separable phrasal verbs used in the main test are given in (19) and the 10 inseparable phrasal verbs in (20). These 20 verbs were presented in each of the three tests with slight changes in contextual information, as illustrated in (21)-(23). In (21)-(23), a separable phrasal verb is given in the first line and an inseparable phrasal verb in the second line. Twenty distracter sentences were developed and used in each of the three tests.

(19) Separable Phrasal Verbs

cross out, make up, give back, see off, turn down,
put out, threw away, call up, fill out, turn off

(20) Inseparable Phrasal Verbs

run into, stay on, dream about, depend on, live on,
move into, laugh at, speak over, care about, live with

they did.

Sentences (21) to (23) are examples of the type of construction used in each test.

(21) Example test items in the Split test

- a. Sue turned a job offer down.
- b. *Everybody laughed the dog's trick at.

(22) Example test items in the Pronoun Test

- a. *Sue was offered a job as a translator, but she turned down it.
- b. This dog has a good trick. Everybody laughed at it.

(23) Example test items in the RC Test

- a. *We are talking about the job offer down which Sue turned.
- b. This dog has a kind of good trick at which everybody laughs.

Procedure

Each participant was first asked to do the preliminary translation test and then to perform one randomly-assigned version of the three tests. Participants in each test were asked to mark a sentence with an O if they judged that the sentence is acceptable, and with an X if not. The test was implemented in a classroom during a regular class hour. The test required about 15 minutes.

RESULTS

Participants performed on the preliminary translation test without any critical problems. The results showed that the separable phrasal verbs were translated correctly with 89.5 % rate and the inseparable phrasal verbs with 97.8% rate. The high rate of correctness indicated that learners knew the meanings of most of the phrasal verbs that would be used in the main test and that they were ready to do the acceptability judgment in the main test.

Interestingly, learners did significantly better for the inseparable prepositional phrasal verbs than for the separable particle phrasal verbs and the difference was statistically significant, $t(77) = -6.191, p < 0.001$.

Table 2 presents the means and standard deviations of the Split test for native speakers and Korean learners. The mean scores were calculated based on the correct responses for both grammatical and ungrammatical sentences. Higher scores indicate more consistently correct judgments, either correct acceptance of grammatical sentences or correct rejection of ungrammatical ones. That native speakers performed almost perfectly in the Split test confirmed its role as control group and this idea can extend to the other two tests, which involve the data from learners only.

TABLE 2
Means of Correct Judgment of Grammatical and Ungrammatical Sentences on the Split Test (Analysis I)

Test group	Sentence construction	
	[V + NP + Particle] (Separable PV)	*[V + NP + Preposition] (Inseparable PV)
Native speakers	8.33 (1.79)	10.00 (.00)
learners	4.88 (3.24)	9.40 (1.15)

(Maximum score = 10)

(Numbers in the parentheses represent the standard deviation)

(* : ungrammatical construction)

Performance of the two test groups (Native speakers and Korean learners) on the Split test was compared using a two way (2x2) ANOVA with repeated measures (Analysis I). The group effect was significant, $F(1, 38) = 22.479, p < 0.05$. The mean score of native speakers was higher than that of learners. Phrasal verb type (separable and inseparable) was also significant, $F(1, 38) = 34.125, p < 0.05$, with the mean score on the ungrammatical inseparable phrasal verbs ([VP + NP + Preposition] construction) significantly higher than that on the grammatical separable phrasal verbs ([VP + NP + Particle] construction). There was an interaction effect between group type and phrasal verb type ($F(1, 38) = 7.259, p < 0.05$). Post hoc comparison of the means (LSD) revealed that native speakers did significantly better than Korean

learners on the grammatical construction, but not on the ungrammatical construction (LSD= 1. 52). This result suggests that separable phrasal verbs were much more difficult than inseparable phrasal verbs for learners, but that native speakers were equally adept with both constructions (Figure 1).

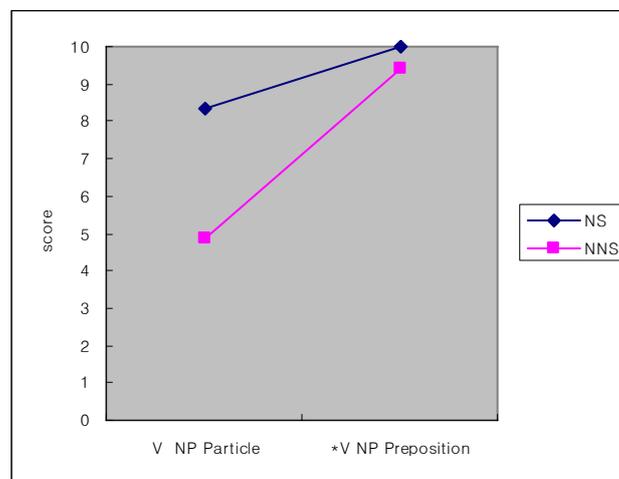


FIGURE 1
Means of Correctness on the Split Test

The performance of Korean learners on all three tests was compared using two-way (3x2) ANOVA with repeated measures (Analysis II). Table 3 presents the means and standard deviations of the three tests for Korean learners. Table 4 shows the ANOVA results. The effect of phrasal verb-type (separable and inseparable phrasal verbs) was significant, $F(1, 75) = 6.939$, $p < 0.05$. The effect of test type (Split test, Pronoun test, RC test) was not significant, $F(2, 75) = 1.697$, $p = n.s.$. A significant interaction effect occurred between test-type and phrasal verb-type ($F(2, 75) = 8.136$, $p < 0.05$). Post hoc comparison of the means (LSD) revealed that performance was different on the Split test and the RC Test, but this was not statistically significant ($MSE = 12.770$, $p = 0.075$).

TABLE 3
Means of Correct Judgments of Grammatical and Ungrammatical Sentences of
three Tests for Korean Learners (Analysis II)

	Split test (V NP __)	Pronoun test (V __ pro)	RC test (NP __ RC)
Separable PV with preposition	4.88 (3.24)	*7.11 (2.42)	*5.73 (2.96)
Inseparable PV with particle	*9.40 (1.15)	6.0 (3.65)	6.85 (3.89)

(* indicates ungrammatical construction of phrasal verbs with the test)

TABLE 4
Two-way (3x2) ANOVA Results of three Tests for Korean Learners (Analysis II)

Source of variance	SS	df	MS	F
Test type	19.281	2	9.641	1.697
Error I	426.026	75	5.680	
Phrasal verb type	88.612	1	88.612	6.939*
Test type x Phrasal verb type	207.809	2	103.905	8.136*
Error II	957.780	75	12.770	
Total	1699.517	155		

*p<0.05

The interaction effect between the test type and the phrasal verb type in table 4 occurred because the Split test resulted in significantly better identification of inseparable phrasal verbs than of separable ones (LSD= 1.52, $p < 0.05$), whereas using the other tests, the rates of correct identification were similar for the two phrasal verb types (see Figure 2). This result is important, because it suggests that Korean learners find the Split test to be more effective at identifying inseparable phrasal verbs than separable ones.

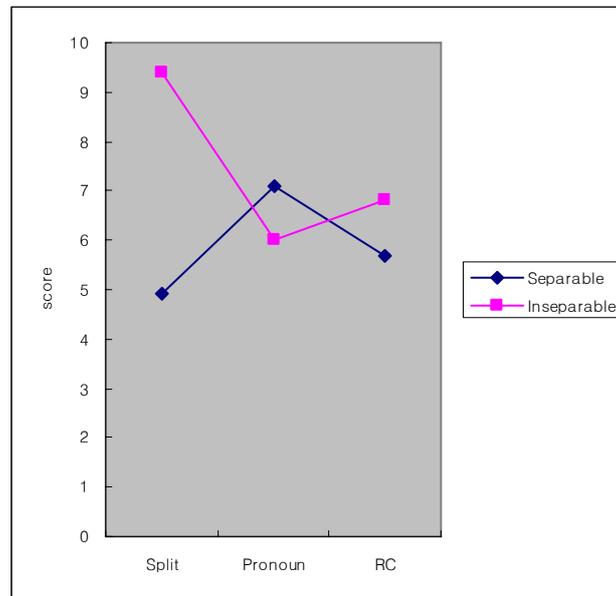


FIGURE 2
Means of Correctness on Three Tests by Learners

DISCUSSION

Native speakers' near-perfect judgment and usage of both types of phrasal verbs in analysis I proved that the test items were grammatically relevant to investigate the structure in question. Korean learners of English demonstrated in the preliminary translation test that they knew the meaning of the phrasal verbs and could use them correctly. This result indicates that phrasal verbs were present in learners' interlanguage. The learners consistently identified and used inseparable phrasal verbs better than the separable phrasal verbs.

The first research question asked whether Korean learners of English knew when a phrasal verb is separable. In general, it seemed that they did not know very well. In Analysis I, where native speakers and learners were asked to show their acceptability on the Split test, the correct response rate for the

separable phrasal verbs by learners was only 48.8%, i.e., a rate consistent with random decisions. The learners' low correct response rate for separable phrasal verbs on the Split test is puzzling considering that the learners knew the meaning of 94% of these verbs in the preliminary translation test. This result clearly illustrates that understanding the meaning of the phrasal verb is not the same as understanding whether it is separable or not.

The structure of the separable phrasal verbs used in the tests may provide a plausible answer to this. The separable phrasal verbs were given in the [V + Particle + NP] sequence (ex. *crossed out a mistake*) on the preliminary translation test, and in the [V + NP + Particle] sequence (ex. *crossed the mistake out*) on the Split test. The learners' better performance in the preliminary test than in the main test can be explained if the continuous phrasal verb construction is encountered more frequently in the input than is the discontinuous phrasal verb construction⁴.

Corpus data provides a good source to probe this possibility. To do so, I examined the British National Corpus (BNC) of approximately 100 million words. In this corpus, 4964 cases of the continuous phrasal verb construction and 2295 cases of the discontinuous phrasal verb construction occurred⁵.

TABLE 5
Corpus Frequency of the Two Sequences of Construction from BNC

Sequence	Example	Frequency
Discontinuous PV	put the phone down	2295
Continuous PV	pick up the phone	4964

⁴ See Lohse et al. (2004) in which they argue domain minimization for English verb-particle constructions whereby the length of the object NP will be a significant factor for performance preferences regarding the adjacency of verb and particle or preposition.

⁵ It is impossible to distinguish between particles and prepositions in searching the corpus, because the tagging for these categories has not been done. For example, while *get a move on* is occurable, **get on a move* is not, because it is ungrammatical. In contrast, *hang on a minute* is possible, whereas **hang a minute on* is not. The same word *on* is used as a preposition in the former case and as a particle in the latter case. Therefore, whether the phrasal verb is continuous (e.g., *hang on a minute*) or discontinuous (e.g., *get a move on*) can be the essential division in the numerous results of corpus analyses.

One important characteristic of continuous phrasal verb construction is that the adposition which immediately follows the verb can be either particle or preposition, as shown in the 'bring in the chair' and 'sit in the chair' examples. However, in the discontinuous phrasal verb construction, the phrase final component must be a particle. In the continuous phrasal verb construction, whether the component intervening between the verb and the NP is a particle or a preposition, this structure is more than twice as frequent as the discontinuous construction. Thus, learners may be more familiar with this structure, with the result that they favor the more frequent construction over the less frequent one. This explains why learners wrongly rejected correct sentences with the [V + NP + Particle] construction (discontinuous PV) many times on the Split test. Likewise, since the [V + Particle + NP] construction (continuous PV) is more frequent in the input and learners are sensitive to the input, they correctly accepted this construction with higher degree in the preliminary test.

Additional evidence that learners did not do well in the separable phrasal verbs was shown in analysis II, where in all three tests, learners showed significantly fewer correct responses for sentences with separable phrasal verbs than for sentences with inseparable phrasal verbs. I will return to this result in the discussion of the second research question.

The second research question addressed whether Korean learners of English knew whether a particular phrasal verb is inseparable. They did: they correctly rejected the ungrammatical structure involving inseparable phrasal verbs in 94% of cases, compared with 100% for native English speakers (Analysis I). Apparently, Korean learners noticed the absence of the [V + NP + Preposition] construction in the positive evidence, because the construction is not allowed in English. Results indicated that learners did better in rejecting ungrammatical sentences than in accepting grammatical sentences. This tendency is consistent with other SLA research which involved grammaticality judgment tests, where L2 learners did better for rejecting ungrammatical structures than accepting grammatical structures (Birdsong, 1989; Cowan & Hatasa, 1994; Gass, 1994). Analysis II also

confirmed that sentences with inseparable phrasal verbs were easier for learners than the separable phrasal verbs throughout three tests.

The third research question addressed whether learners' behavior, if any, reflected the way their performance is measured. As shown by the comparison of learners' behaviors in three tests (Analysis II), results were not significantly different among test types. However, although the mean score was not significantly different among test types, the Split test resulted in a greater difference in score between separable phrasal verb and inseparable phrasal verb sentences than did the other two tests. Learners' performance difference between grammatical and ungrammatical sentences was clearly contrasted in the test in which NP was used as the object of the verb. There was no such difference between grammatical and ungrammatical structures when the pronoun object and relative clause structures were used. This result suggests that learners' perception of grammaticality of sentences with phrasal verbs with NP object is different from that with pronoun object or relative clauses, and implies that L2 learners seem to be influenced by and sensitive to construction-by-construction learning (Bley-Vroman, 1997).

Finally, learners apparently fail to make correct constituent-structure analysis of the [V + Particle + NP] construction by analyzing the post-verbal string of words superficially as a PP, resulting in [V + prepositional phrase] construction, instead of [phrasal verb + direct object] construction. This failure can explain the larger contrastive result in the Split test than in the other two tests, in that inseparable phrasal verb construction was performed better than the separable phrasal verb construction. It can be assumed that learners might have wrongly interpreted the adposition in the [V + NP + Particle] construction as a preposition and thereby have felt uncomfortable with the construction in which the preposition was moved to follow the NP object. This would explain why the mean acceptability was low in the grammatical [V NP Particle] construction. It also provides indirect evidence for the avoidance of phrasal verbs by Korean learners of English (cf. Kweon, 2006).

PEDAGOGICAL IMPLICATION

Korean learners avoid making phrasal verbs discontinuous. This disfavor is stronger for inseparable prepositional phrasal verbs (e.g., *sit the chair in) than for separable particle phrasal verbs (e.g., bring the chair in). Learners may have noticed that some components such as *out*, *up* or *off* can be put after the object of the phrasal verbs, whereas some components such as *into*, *on*, or *about* cannot. When a pronoun object occurs after the phrasal verb (e.g., sit in it/*bring in it), Korean learners seem to understand that sometimes pronoun substitution is permissible, but sometimes not. Importantly, they are not sure when the ‘sometimes’ is. Hence they may safely favor [V Preposition/Particle NP] construction, regardless of whether the NP object is noun or pronoun.

Considering these observations, two suggestions can be made for L2 classroom instructions. First, phrasal verbs, whether separable or inseparable, can be taught using the continuous form [V Preposition/Particle NP] construction with the warning that some, but not all, phrasal verbs can be split by an NP object repositioned between verb and adposition. However, significant difficulty may be encountered when instructing the students which adpositions are prepositions and which are particles. Second, the disallowance of [V Particle Pronoun] construction should be explicitly instructed, while drawing attention to the allowability of [V Preposition Pronoun] construction.

It is extremely difficult to teach explicitly what components can be prepositions and what can be particles, because both of them are categorized as prepositions in other environments than phrasal verbs⁶. Therefore, the

⁶ As an anonymous reviewer correctly pointed out, the pedagogical implication should be strengthened by providing more explicit teaching methodologies on the distinction between separable and inseparable phrasal verbs. However, the failure to provide concrete methodologies is due to the inherent characteristics of the linguistic phenomenon itself under investigation in this study. As I mentioned above, it is almost impossible to be able to TEACH how to distinguish the preposition *in* of ‘sit in the chair’ from the particle *in* of ‘bring in the chair’ without the noticing ability

essence of successful learning of the distinction between separable and inseparable phrasal verbs primarily depends on learners' sensitivity to input frequency and their noticing ability through attention (cf. Bley-Vroman, 1997; Schmidt, 1990). For this purpose, input enhancement is required throughout various activities, including extensive reading, in order to provide autonomous learning (cf. Tokowicz & MacWhinney, 2005).

CONCLUSION

The present study investigated the ability of Korean learners to distinguish separable and inseparable phrasal verbs in English. Native speakers are more precise in judging the acceptability of grammatical and ungrammatical sentences regarding separability of phrasal verbs than Korean learners. Learners seem to be able to perform better at identifying grammatical and ungrammatical structures for inseparable phrasal verbs than for separable phrasal verbs. This difference is consistent throughout the three tests. Given that both separable and inseparable phrasal verbs are instructed at the same time with equal emphasis and with concurrent comparison for usage, the asymmetrical performance of the learners between the two structures implies that learners seem to be able to distinguish separable phrasal verbs from inseparable phrasal verbs. Corpus frequency and learners' sensitivity to input may play an important role in L2 acquisition.

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through sufficient input exposure on the learners' side.

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