

# English Verb-Particle Constructions: A Gradient Analysis

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## Abstract

This study clearly defines the English verb-particle combinations dealing with some of the linguistic properties of both the prepositional and phrasal verbs. Various researchers have argued that phrasal verbs are semantically gradient although they approve three distinctive categories such as literal, aspectual, and idiomatic as Fukui (2006) suggests. It is proposed that prepositional verbs are semantically in the same scale-class as idiomatic phrasal verbs although they are syntactically different in many ways. In the course of discussion, the appropriateness of the syntactic and semantic gradience of these kinds of constructions are analyzed by using a corpus. And it is also revealed in this study that the borderline between them (e.g. adverbial vs. prepositional, aspectual vs. nonaspectual, literal vs. figurative) is not always clear and that we need to examine them carefully using the cognitive approaches combined with corpus research or other methods. As a result, it is suggested that this gradient analysis is applicable even to the meaning of the words by expanding their metaphorical connotations from concrete to abstract or idiomatic. Finally, the author points out the importance of elicitation test techniques for Japanese EFL learners.

## 1. Introduction

Phrasal verbs are, in one sense, verbal phrases, a term first introduced by Smith (1925). Later Palmer (1965) called them 'verbal combinations', while Fraser (1974) named them as 'verb-particle combinations', and Yasui (1996, p.388) cites them from Sweet (1891-98) as 'group verbs'. Dehē (2002) and Geld (2009) use the term particle verbs instead of phrasal verbs, focusing their attention mainly on particles rather than verbs.

Palmer (1965) gives us four types of verbal combination patterns as shown below:

- |  |                                |
|--|--------------------------------|
| (1) a. He <i>ran into</i> an old friend. | (Prepositional verbs)          |
| b. The enemy finally <i>gave in</i> .    | (Phrasal verbs without object) |
| c. I <i>put up</i> a candidate.          | (Phrasal verbs with object)    |
| d. I can't <i>put up with</i> that man.  | (Phrasal prepositional verbs)  |

A phrasal verb is qualified to be a word which is functionally modified from a phrase into a word comprising a verb and an adverbial particle (Nishikawa, 2003). Hence, this turns out to be a phrase syntactically but semantically or cognitively, a word.

Idiomatic phrasal verbs are usually highly frozen fixed expressions composed of two or more words, and semantically they are often thought to be almost the same as one word, or one lexical item which has one meaning. But it is to be noted that not a few phrasal verbs (e.g. *make out*) have more than one meaning and they are not necessarily syntactically frozen, that is, some of the idiomatic expressions can also receive several kinds of syntactic operations such as passivization, modification, pronominalization, and deletion or ellipses.

As for the term, Bolinger (1971, p.3) lists the following additional examples: "two-word verb," "discontinuous verb," "compound verb," and "verb-adverb compound." He himself uses the popular term "phrasal verb". Thus Bannard (2002) has chosen to use "verb-particle construction" (henceforth VPC) in his paper because it seems to be the most explicitly descriptive and straightforward term available. Along this line, Ando (2005, p.737) adds other examples, such as "verb-adverb combination" originated from Kennedy (1920), and "complex verb."

Takagi (2004) shows an overview of the definition of phrasal verbs and illustrates a certain number of *get* and *go* verbal patterns. He cites Bolinger's (1971, p.145) comment as follows: Phrasal verbs by the simplest definition must contain a verb proper and something else. What that something else is can be disregarded while we ask whether there is significance in the simple fact of there being more than one word. In this construction, therefore, it seems preferable to use particles as they are because they are sometimes very difficult to distinguish precisely and rigidly. For example, a number of researchers treat them as not only adverbial but also prepositional when they deal with VPCs, while others don't (Emonds, 1972; Nishikawa, 2003; Farrell, 2005; Watanuki & Petersen, 2006).

In what follows, Section 2 deals with particles first of all. —Because they contain not only adverbials and prepositionals but also aspectuals and nonaspectuals, it is the main focus of this study. Then, Section 3 deals with verbs, and Section 4 with various approaches to VPCs including corpus as well as elicitation test approaches, especially focusing on the cognitive approaches along with semantic scale analysis. Lastly, I conclude in Section 5 by discussing all of these matters briefly and suggest the priority of the cognitive approaches.

## 2. Particles of the VPCs

### 2. 1. Particles

The term 'particles' was once introduced by Jespersen (1927) as one part of speech including adverbs, prepositions, conjunctions, and interjections, but now in the case of phrasal verbs it mainly means adverbs and prepositions. Historically speaking, a number of prepositions are said to be derived from spatial adverbs and Sasaki (2000) argues that post-verbal particles have emerged from directional prefixes of the verbs, considering the historical development of particles.

In present-day English, particles, such as *up*, *down*, *in*, *over*, and *on*, are words functioning as both prepositions and particle adverbials (Declerck, 1991). In this connection, particles are classified into the following three groups, that is, (2a) prepositions only, (2b) spatial adverbs only, and (2c) those which can be either prepositions or spatial adverbs (Quirk, Greenbaum, Leech, & Svartvik, 1985).

(2) a. against, among, as, at, beside, for, from, into, like, of, onto, upon, with, etc.

**Table 1** Frequency of 16 Adverbial Particles (AVPs) in BNC

Form	Total tags	# as AVP	% as AVP
out	149,727	145,706	97.3
up	180,792	158,064	87.4
down	91,832	72,709	79.2
back	97,154	75,233	77.4
off	67,479	37,751	55.9
round	30,821	10,895	35.3
along	18,555	4,925	26.5
over	128,304	32,526	25.4
around	43,391	10,384	23.9
on	705,790	54,956	7.8
through	81,184	5,797	7.1
about	705,790	12,587	6.6
in	1,845,077	34,411	1.9
under	60,049	313	0.5
by	504,969	371	0.1
across	24,053	13	0.1
Total	4,219,792	656,641	15.6*

*Note* # = token frequency. \* = Average of column. Gardner & Davies (2007, p.346)

b. aback, ahead, apart, aside, astray, away, back, forward(s), home, in front, on top, out, together, etc.

c. about, above, across, after, along, around, by, down, in, off, on, out, over, past, round, through, under, up, etc.

As Gardner and Davies (2007) investigated these using the BNC corpus, it is observed that the particles of the phrasal verbs have a kind of semantic gradation between adverbs and prepositions as shown in Table 1.

This gradience of the adverbial degree can be formulated as follows:

(3) more adverbial>out.>up>down>back>off>round>along>over>around>on>through>about>in>under>by>across< less adverbial

In comparison with Japanese EFL learners, the tendency of the usage of the particles used in the JEFLL corpus is shown in the following Table 2.

So, we could formulate this as follows:

**Table 2** Frequency of the adverb and preposition of the particles in the JEFLL corpus

Form	adverb		preposition	
	# as AVP	% as AVP	# as PREP	% as PREP
*away	236	100.0	0	0.0
back	401	100.0	0	0.0
up	1496	98.6	22	1.4
out	1248	97.1	37	2.9
down	179	93.2	13	6.8
off	27	58.7	19	41.3
over	64	44.4	80	55.6
around	92	36.8	158	63.2
along	10	34.5	19	65.5
through	7	12.7	48	87.3
across	1	10.0	9	90.0
about	86	8.4	1028	91.6
on	132	7.3	1673	92.7
under	3	4.7	61	95.3
in	294	3.5	8197	96.5
by	40	2.4	1593	97.6
round	0	0.0	1	100.0
*with	0	0.0	2532	100.0

*Note* —\* means additional examples

- (4) adverb=away, back>up>out>down>off>over>along>around>  
about>through>across>on>under>in>by>round, with=preposition

## 2.2. Particle List for the VPCs

Concerning particles, Fraser (1974, p.4) says that only 16 words have been observed to function as particles:

- (5) about, across, along, around, aside, away, back, by, down, forth, in, off, on, out, over, up

While Kennedy (1920) cites the 16 particles which follow and says that *up* and *out* are the most important, the reason why *up* and *out* are the most important is not clearly stated.

- (6) about, across, (a)-round, at, by, down, for, in, off, on, out, over, through, to, up, with

Likewise, Leech (1996) cites the following 17 particles.

- (7) about, across, along, around, away, back, by, down, foreword, in, off, on, out, over, through, under, up

Shimada (1985) cites the following 17 particles as typical ones:

- (8) about/around, across, along, aside, away, back, by, down, in, off, on, out, over, through, under, up

Bannard (2002), on the other hand, deals with as many as 60 particles:

- (9) about, above, abroad, across, after, afterward, afterwards, against, ahead, along, among, around, aside, astray, at, away, back, backward, backwards, before, beforehand, behind, below, beside, between, beyond, by, down, during, facing, forth, forward, from, hither, in, into, near, nearby, off, on, onto, out, over, past, since, thereabouts, through, thru, throughout, to, toward, towards, under, up, upon, upstairs, via, with, within, without

*Collins Cobuild Phrasal Verbs Dictionary* (2006) lists 48 particles as follows:

- (10) aback, about, above, across, after, against, ahead, along, among, apart, around, as, aside, at, away, back, before, behind, below, beneath, between, beyond, by, down, for, forth, forward, from, in, into, of, off, on, onto, out, over, overboard, past, round, through, to, together, towards, under, up, upon, with, without

And the *Oxford Phrasal Verbs Dictionary for Learners of English* cites the following 46 particles:

- (11) aback, about, above, across, after, against, ahead, ahead of, along, among, apart, around, as, aside, at, away, back, before, behind, between, by, down, for, forth, forward, from, in, into, of, off, on, onto, out, out of, over, past, round, through, to, together, towards, under, up,

upon, with, without

Based on these, Table 3 represents the percentage of three-group particle categories in each part of the literature, that is, those adverbial only, those prepositional only, and those which can be either prepositions or adverbs. This shows that researchers tend to pay more attention to adverbs when studying VPCs. Therefore, more attention needs to be paid to the prepositional side of the VPCs.

**Table 3**

	Fraser (1974)	Kennedy (1920)	Leech (1996)	Shimada (1985)	Gardner and Davies (2007)	Bannard (2002)	CCPVD	OPVDLE
adverbial only	4 (25.0%)	0 (0%)	3 (17.6%)	3 (17.6%)	1 (6.3%)	15 (25.0%)	13 (27.1%)	10 (21.7%)
adverb or preposition	12 (75.0%)	12 (75%)	14 (82.4%)	14 (82.4%)	15 (93.8%)	30 (50.0%)	22 (45.8%)	21 (45.7%)
prepositional only	0 (0%)	4 (25%)	0 (0%)	0 (0%)	0 (0%)	15 (25.0%)	13 (27.1%)	15 (32.6%)
total	16 (100%)	16 (100%)	17 (100%)	17 (100%)	16 (100%)	60 (100%)	48 (100%)	46 (100%)

### 2.3. Particle Classification

Bannard (2002) classifies the possible particles into three (overlapping) classes — (12a) those concerning temporal position, (12b) those concerning spatial direction and (12c) those concerning spatial position. The items belonging to each class are shown as follows:

- (12) a. Temporal position: after, afterward, afterwards, before, during, since, beforehand, throughout, at, past
- b. Spatial-direction: across, along, around, away, back, backward, backwards, down, forth, forward, from, hither, onto, through, thru, to, toward, towards, up, via, aside, into, about, against, ahead, astray, at, beyond, in, off, on, out, over, past
- c. Spatial-position: about, above, abroad, against, ahead, among, astray, behind, below, beside, between, beyond, by, facing, in, near, nearby, off, on, out, over, past, thereabouts, throughout, under, upon, upstairs, within, without, at, with, across

A number of items are included in more than one group (e.g. *out* is in both the spatial direction and position group and *past* is in all three). One interesting thing to note is that the particles that are attested seem only to be those concerning spatial position and direction, which might be a useful observation when we come to constrain substitution. It seems useful to

sort the spatial words into two categories, for example, *in* would seem to be available as both direction and location, a word like *back* can only refer to direction and not position.

In this connection, Nieda (2006) says that the most frequently used particles are *up*, *out*, *on*, *in*, *off*, and *down*, respectively, according to Biber et al. (1999, p.413). And she argues that this fact proves that these particles show the most basic cognitive prototype, namely, static and dynamic directions, or changing positions, to enlarge the meaning.

## 2.4. Summary

In this section, we have seen one word, like a particle, functioning in two or more ways, i.e. particles as both adverbials and prepositionals, spatial words as directional and positional, and so on. This analysis shows that there are apparently some kinds of gradients between these functions, as shown in Tables 1 and 2. It was also shown that many researchers such as Fraser (1974) are more concerned with adverbial particles than prepositional or prepositions when they study VPCs. Enough research, therefore, has not been done on the kinds of relationships between dual or multiple functions, so it seems significant to proceed to study more in this field. In other words, more research needs to be done concerning the insufficient statements on these functional gaps which are evident in the literature. Thus, these gaps which need filling require more specific formulation.

## 3. Verbs of the VPCs

### 3. 1. Verb List for the VPCs

Kennedy (1920) shows the typical 20 (or 25) verbs of the phrasal verbs and says that verbs *put*, *set*, *get*, and *take* are the most important:

(13) back, blow, break, bring, call, come, fall, get, give, go, hold, lay, let, make, put, run, set, take, turn, work(, do, fix, look, pull, shut)

He also says that these 25 verbs make up nearly 200 phrasal verbs and provide over 1,000 different meanings.

Whereas the *Collins Cobuild Phrasal Verbs Dictionary* gives us the next 38 verbs as the typical VPCs:

(14) break, bring, call, cast, come, cut, do, fall, get, give, go, hang, hold, keep, kick, knock, lay, lie, live, look, make, move, pass, play, pull, push, put, run, send, set, sit, stand, stay, stick, take, talk, throw, turn

Nieda (2006) classifies the verbs cognitively as below:

(15) MOTION: bring, carry                      REST: sit, stand  
       AFFECT: cut, kick                         GIVE: give, get

MAKING: make, let

OTHERS (neutral): be, do

And she points out, these are all verbs of motion so that they can easily enlarge their meanings metaphorically. She also states that most of the verbs are monosyllabic, sometimes bisyllabic Germanic words, so that it sounds phonologically easy to pronounce with the particles.

### 3.2. Verb -Particle Classes

Bannard (2002) postulated four verb-particle classes as follows:

- (16) Both the verb and the particle contribute their simplex meaning (e.g. *force out, take back*).
- (17) The verb but not the particle contributes its simplex meaning (e.g. *speak out, buy up*).
- (18) The particle but not the verb contributes its simplex meaning (e.g. *shell out, ward off*).
- (19) Neither the verb nor the particle contributes its simplex meaning (e.g. *hammer out, snap up*).

(Bannard 2002, p.8)

According to him, a set of 180 VPCs were annotated-based on this scheme, and this can be used as a gold-standard set for first testing the intuitions underlying the features and then training and testing a classifier. It seems, however, rather difficult for non-advanced EFL learners to apply this scheme accurately because of their lack of vocabulary. Thus it would be interesting to compare their testing results with non-advanced EFL learners' if possible.

### 3.3. Summary

This section deals mainly with verbs of the VPCs, showing some of the typical verbs used in this construction. It also shows verb classifications proposed by Nieda (2006) and Bannard (2002) as examples, presenting their outlines and problems briefly. In order to show typical verbs, it might be useful to investigate frequent VPCs using the native corpus. It seems that the cognitive approach proposed by Nieda (2006) would provide meaningful insights into the polysemy of the verbs. I will also investigate more basic verbs with this kind of classification in future research although this section provides only a small number of basic verbs because of the limited by space.





## 4.2. Aspectual Particles

Jackendoff (2010) takes up particles such as *up*, *away*, *on*; *V over*, *V through* as typical aspectual ones. Besides them, *out* is also typical as Uchikiba (2005) mentions. Celce-Murcia and Larsen-Freeman (1999, pp.432-433) state that aspectual phrasal verbs can be subdivided into a certain number of semantic classes, depending on the semantic contribution of the particle as follows.

- (24) Inceptive (to signal a beginning state)

John took off.

(Others: set out, start up)

- (25) Continuative (to show that the action continues)

—use of *on* and *along* with activity verbs

a. Her speech ran on and on.

b. Hurry along now.

(Others: carry on, keep on, hang on, come along, play along)

—use of *away* with activity verbs with the nuance that the activity is “heedless”

c. They danced the night away.

(Others: work away, sleep away, fritter away)

—use of *around* with activity verbs to express absence of purpose

d. They goofed around all afternoon.

(Others: mess around, play around, travel around)

—use of *through* with activity verbs to mean from beginning to end

e. She read through her lines in the play for the audition.

(Others: think through, skim through, sing through)

- (26) Iterative (use of *over* with activity verbs to show repetition)

He did it over and over again until he got it right.

- (27) Completive (uses particles *up*, *out*, *off*, and *down* to show that the action is complete)

—turns an activity verb into an accomplishment

a. He drank the milk up.

(Others: burn down, mix up, wear out, turn off, blow out)

—reinforces the sense of goal orientation in an accomplishment verb

b. He closed the suitcase up.

(Others: wind up, fade out, cut off, clean up)

—adds durativity to a punctual achievement verb

c. He found out why they were missing.

(Others: check over, win over, catch up)

(Celce-Murcia & Larsen-Freeman 1999, pp.432-433)

Here *burn up* and *burn down* are not antonyms. *Up* has a positive “goal

completion” meaning versus *down* or *out*, which have a more negative “complete extinction” meaning. Certain aspectual particles co-occur with certain verbs. *Fade out* is acceptable, but *\*fade up* is not. This means aspectual particles are noncompositional.

### 4.3. Aspects of Phrasal Verbs

Durative (or imperfective) verbs like *stand* become momentaneous (or ingressive) when followed by adverbs (Otsuka, 1974, p.111). For example, consider verbs like *stand*, *hit*, *lie*, *go*, and *look*.

(28) stand up, sit down, lie down, go off, look up (momentaneous or ingressive)

a. He stood up.

b. He sat down.

c. He dozed off.

(Kitamura, 1956, p.26)

Similarly, durative verbs like *read* become terminative when followed by adverbs like *through*, *up*, and *out*.

(29) read through (up), eat up, stand out (terminative)

In this way, particles change not only the meaning of the verbs but also the aspect.

### 4.4. Case of Verb *Climb*

It is suggested by Suzuki and Yasui (1994, p.67) that phrasal verbs like *climb up* are verbs of activity and *climb* and *climb up* sometimes seem to have the same meaning. So *Cobuild Dictionary* defines these as having the same meaning. But they are, in fact, different from an aspectual point of view. Consider the following sentences (30). The asterisk mark (\*) in each sentence represents that the sentence is ungrammatical.

(30) a. John climbed up the Matterhorn.

b. John climbed the Matterhorn.

c. John climbed up the Matterhorn and only got halfway up.

d. \*John climbed the Matterhorn and only got halfway up.

e. John climbed the Matterhorn but only got halfway up.

(Konishi, 1980, p. 252)

As shown in (30d), sentences like *climb the Matterhorn* become ungrammatical followed by *and only got halfway up*, because the verb *climb* is a verb of accomplishments which has a semantic feature of telicity.

Furthermore, particles like *up* contain the meaning of completeness, so that it cannot have a progressive form as in (31a) while directional particles like *upward* can as in (31b):

- (31) a. \*He was climbing up. (Konishi, 1980, p. 252)  
 b. He was climbing upward. (*Ibid.*)  
 c. He was climbing up the mountain.

It should be noted that when the particle *up* loses the meaning of completeness it becomes acceptable as in (31c), in which the particle *up* functions as a preposition, not an adverb.

#### 4.5. Semantic Scale with respect to Particle Movement

Even in the field of phonology, phrasal verbs tend to follow the patterns of single-word verbs. Bolinger (1971) postulates that this flexibility in particle placement may be a result of phonological need, allowing a movement in stress to match speech rhythm. Interestingly, he also notes that the joined construction may be more favored when the sense of the particle is not literal. This means implicitly that particle movement is related with not only phonological but also semantic need, that is, idiomaticity. The question mark (?) in each sentence means that the sentence is less acceptable.

- (32) a. He had given up hope.  
 b. ?He had given hope up. (Ando, 2005, p. 742)
- (33) a. They laid down their arms.  
 b. ?They laid their arms down. (*Ibid.*)

As seen in sentences (32) and (33), Fukui (2006) points out that idiomatic VPCs find it more difficult to take the verb-noun-particle order than literal VPCs, using his newly -postulated semantic scale analysis as shown in (34).

- (34) Idiomatic VPCs — Aspectual VPCs — Literal VPCs
- |     |      |     |     |     |
|-----|------|-----|-----|-----|
| *C1 | ??C1 | ?C1 | C1  | C1  |
| C2  | C2   | C2  | ?C2 | *C2 |

(Fukui, 2006, p. 113)

His semantic scale (34) results from a careful observation of sentences (35), which seems to indicate the semantic degree of idiomaticity:

- (35) a. \*He eked his income out. (C1) (Idiomatic)  
 (Farrell 2005, p. 107)
- b. He eked out his income. (C2) (Idiomatic) (*Ibid.*)
- c. ???John threw the dinner up (C1) (Idiomatic)  
 (Fukui 2006, p. 110)
- d. John threw up the dinner. (C2) (Idiomatic) (*Ibid.*)
- e. ?John ate the food up. (C1) (Aspectual)  
 (Fukui 2006, p. 111)
- f. John ate up the food. (C2) (Aspectual) (*Ibid.*)

- g. John threw the garbage away. (C1) (Literal)  
 (Fukui 2006, p. 109)
- h. ?John threw up the garbage. (C2) (Literal) (*Ibid.*)
- i. I could hardly tell the two of them apart. (C1)  
 (Literal) (Farrell 2005, p. 108)
- j. \*I could hardly tell apart the two of them. (C2)  
 (Literal) (*Ibid.*)
- k. \*Come me with. (Prepositional verb)
- l. Come with me. (Prepositional verb)

Here it is observed that prepositional verbs show the same grammaticality as idiomatic VPCs, so we can add them in the same scale-class as idiomatic ones.

Fraser (1974) argues that verbs without initial stress prefer construction l.

- (36) a. John picked up the book. (Construction 0)  
 b. John picked the book up. (Construction 1) (Gries, 2001, p. 34)

According to Gries (2001), in the following sentences (37) through (39) *b*-sentences are more preferable to *a*-sentences in the case of the spoken context, but *a*-sentences in the case of the written one. He states that particle movement is related to the four aspects, namely, phonological, morphosyntactical, semantical, and discourse-functional.

- (37) a. ? I will insult back the man.  
 b. I will insult the man back. (Gries, 2001, p. 36)
- (38) a. ?We converted over the heating to steam.  
 b. We converted the heating over to steam. (*Ibid.*)
- (39) a. ?They attached up the tag on the wall.  
 b. They attached the tag up on the wall. (*Ibid.*)

Yasui (1996, p. 392) and Ando (2005, p. 742), on the other hand, treat this kind of grammaticality as one of the phenomena of the information structures in the discourse. They argue that normal sentences should have the old-to-new information orders. So this might be related to stylistic and pragmatic factors as well.

#### 4.6. Various Syntactic and Semantic Classification

According to Uchikiba (2005), VPCs can be syntactically divided into two types, transitives and intransitives. As shown in (40), intransitives are subdivided into literal and idiomatic, whilst transitives are subclassified into three groups on the basis of the position the particle occupies (Group A, Group B, and Group C); the particle can occur on either side of the direct object noun phrase (Group A), the particle has to be shifted to follow the noun phrase (Group B), and the particle has to be placed before the

object noun phrase (Group C). Furthermore Group A can be divided into three types in terms of semantics and pragmatics. In Group A-1, both the verb and the particle retain their individual lexical meanings. In A-2, the verb alone retains its lexical meaning while the particle is used as an intensifier or as an aspectual marker of perfectivity in the sense of completion. In Group A-3, the verb and the particle are fused into a new idiomatic combination. In addition, he argues that idiomatic VPCs can also be subcategorized into three types on the basis of the position of the particle (Group D, Group E, and Group F); the particle can either precede or follow the object noun phrase (Group D), the particle follows the noun phrase (Group E), and the particle precedes the noun phrase (Group F).

- (40) a. The guests came in. (Literal intransitive)  
 b. The enemy gave in. (Idiomatic intransitive)  
 c. John carried the trunk up. John carried up the trunk.  
 (Group A-1)  
 d. I'll cut up the meat for child. typical; up, out  
 (Group A-2)  
 e. He turned that job down. He turned down that job.  
 (Group A-3)  
 f. She pulled the blind up and down. (Group B)  
 g. They put off studying. \*They put studying off.  
 (Group C)  
 h. Have you made your mind up yet (Group D)  
 i. blow oneself out, live it up, beat one's brains out  
 (Group E)  
 j. cast on stitches, fill in time, keep up heart,  
 (Group F)

(Uchikiba, 2005, pp. 48-57)

Wurmbrand (2000) claims that VPCs fall into two classes semantically, that is, transparent and idiomatic. And idiomatic phrasal verbs are supposed to be composed of semi-idiomatic and idiomatic categories in terms of their idiomaticity. Similarly, Waibel (2007) supposes transparent and opaque VPCs besides semi-opaque according to Laufer and Eliasson (1993). On the other hand, Shimada (1985) shows that phrasal verbs can be divided into four types, namely, literal, aspectual, idiomatic, and metaphorical.

Fraser (1974) also draws a distinction between systematic and unsystematic “figurative” VPCs. Jackendoff (2010) notes that the VPCs are classified as verb-particle idioms, directional particle constructions, aspectual particle ones, time-away ones, V/V-d out ones, and his head off

family ones, respectively, as shown below.

(41) a. look up ('search for and find'), bring NP (e.g. a child) up (Verb-particle idioms)

b. go down, go out, toss up

(Directional particle construction)

c. up, away, on; V over, V through

(Aspectual particle construction)

d. Bill slept the afternoon away.

(Time-away construction)

e. I'm (all) knitted/programmed out.

(V/V-d out construction)

f. Fred talked his head off, but to no avail.

(His head off family construction)

Celce-Murcia and Larsen-Freeman (1999) and Darwin and Gray (1999) describe three semantic categories of phrasal verbs: literal, idiomatic, and aspectual.

In summary, semantic categories of phrasal verbs in each study are roughly shown in Table 4.

**Table 4**

Fukui (2006) Celce-Murcia and Larsen-Freeman (1999), Darwin and Gray (1999)	literal		aspectual	idiomatic
Uchikiba (2005)	literal		(aspectual)	idiomatic
Shimada (1985)	literal	metaphorical	aspectual	idiomatic
Jackendoff (2010)	directional		aspectual	idiomatic
Wurmbrand (2000)	transparent		(semi-idiomatic)	idiomatic
Waibel (2007) Laufer and Eliasson (1993)	transparent		(semi-transparent)	opaque
Fraser (1974)	systematic	unsystematic	(completive)	(figurative)

#### 4.7. Semantic Gradation

As for analyzing aspects of the particles, Bolinger (1971) warns that “one can easily indulge in aspect splitting (and get nowhere)” (p. 101) as Bannard (2002, p.5) cites. Bolinger (1971) relates the spatial with the aspectual usage of the particles, claiming that “there is no real borderline between non-aspectual and aspectual uses of the particles, but rather a

gradient” (p. 98). Bolinger’s (1971) description of a “semantic gradient from highly concrete meanings of direction and position to highly abstract meaning akin to aspects” (p. 110) is very useful when we analyze a large number of “phrasal verbs”, so that, in this paper, we would follow his idea of semantic gradience of the VPCs.

Gries (2003, p.16) also argues that “the meaning of a verb phrase cannot always be categorized as being either fully idiomatic or totally literal - rather there are many cases where the meaning is somewhere between these two extremes.” And there is substantial literature within the “cognitive grammar” tradition which emphasizes this observation. Thus I will take this kind of cognitive analysis, but in order to make the meaning more explicit, I would need to add some criteria to elaborate the framework. To put it in another way, idioms contain both figurative and literal meaning, but there is a natural gradation between them (Langacker, 1987; Talmy, 1988; Bannard 2002).

#### **4.8. Corpus Studies on VPCs**

There have been five corpus-based frequency studies of phrasal verbs in native English (Biber et al., 1999; Tani, Horiike, Sugimori, & Tomita, 2001; Gardner & Davies, 2007; Waibel, 2007; Liu, 2011), and they all have given us valuable information about phrasal verbs and their distribution patterns. There are, however, important limitations in each of these studies. First, they focus mainly on so-called phrasal verbs so that they do not deal with prepositional verbs at all. Second, all of them are concerned with a small number of particles, that is, as many as 16, so that it is not sufficient for studying the relationship between phrasal verbs and prepositional ones. Third, limited by space and research design, most of their studies provide only the lemmatized most common phrasal verbs, and they do not provide an examination of the use of the various meanings of those polysemous phrasal verbs across various registers.

#### **4.9. Experimental Data of Some Phrasal Verbs**

There are four studies on the avoidance of phrasal verbs in literature, these are, Dagut and Laufer (1985), Hulstijn and Marchena (1989), Laufer and Eliasson (1993) and Liao and Fukuya (2004). Dagut and Laufer (1985) investigated Israeli learners’ use of English, looking into the frequency of avoidance of three phrasal-verb types which were literal, figurative, and completive. Three groups of advanced Hebrew learners took three tests, namely, a multiple-choice test, a verb translation test, and a verb-memorizing test. The results showed that a majority of the learners



avoided using the phrasal verbs, preferring the one-word verbs, and that avoidance was most evident with the figurative phrasal verbs. They contended that typological difference between Hebrew and English resulted in the avoidance. Hulstijn and Marchena (1989), therefore, used the same forms of elicitation tests with Dutch learners of English, getting two interesting findings. One was that not only structural differences between the L1 and L2 but also similarities between them affect the avoidance. The other is participants' tendency to adopt a play-it-safe strategy, preferring one-word verbs with general, multi-purpose meanings over phrasal verbs with specific, sometimes idiomatic meanings. In line with these studies, Laufer & Eliasson (1993) looked into the causes of avoidance, concluding that L1-L2 difference was the most influential factor.

Liao and Fukuya (2004), based on the previous studies, investigate the avoidance of English phrasal verbs by Chinese learners. Six groups of Chinese learners (intermediate and advanced; a total of 70) took one of three tests (multiple-choice, translation, or recall), which included literal and figurative phrasal verbs, while 15 native speakers also took the multiple-choice test. The results show that three factors (proficiency level, phrasal-verb-type, and test type) affect learners' avoidance of phrasal verbs. It may also be pointed out that the differences between first and second languages and the semantic difficulty of phrasal verbs may be reasons for the learners' avoidance.

In this way, Liao and Fukuya (2004) show us some elicitation tests of phrasal verbs used with Chinese EFL learners. These kinds of elicitation tests for Japanese EFL learners may also be used in comparison with Chinese learners in order to ascertain the common characteristics of non-native EFL learners.

Nakamoto and Yokozawa (2004) also conducted the same kinds of experimental research on phrasal verbs, using two kinds of test such as the gap-fill test and a True/False test. They provided evidence that repetition, deep processing and task variation promoted the acquisition of phrasal verbs in long-term memory.

#### **4.10. Summary**

This section took up some of the syntactic and semantic problems of the PVCs such as aspectual usage and particle movement. Then it presented semantic scale analysis (34) and Table 4. The author pointed out the importance of semantic gradience when we deal with the PVCs, by citing Gies (2000) and other cognitive grammarians. The author also reviewed

some of the corpus and elicitation approaches to English phrasal verbs, presenting some major factors for the avoidance of phrasal verbs in literature such as Liao and Fukuya (2004) in addition to some of the methodological problems about the previous corpus studies.

## 5. Discussion and Conclusion

So far, this study has argued that the meaning of phrasal verbs cannot always be categorized as being either fully idiomatic or totally literal, citing Grice (2000). The author has tentatively divided phrasal verbs as follows: (a) literal or directional—phrasal verbs whose meaning is a straightforward product of their semantic components: *go out, take away, come in* (b) figurative or idiomatic—in which a new meaning has resulted from a metaphorical shift of meaning and the semantic fusion of the individual components; *turn up, let down* (c) completive or aspectual—in which the particle describes the result of the action: *cut off, burn down*.

This study deals with particles mainly from a certain number of linguistic aspects. Particles may be classified in a variety of minute ways, but syntactically they could be roughly divided into two functions, namely adverbial and prepositional ones. Thus, we need to know how particles are used from the aspect of language learning. Particle movement seems to be one of the very complicated linguistic phenomena. Native speakers can judge the grammaticality of this kind of phenomena intuitively, but non-natives may not be able to do precisely. Semantic scale (34) presented by Fukui (2006) may be one of the solutions and probably we need to judge the degree of grammaticality, following the corpus approach. The author's proposal in (34) is that prepositional verbs are semantically in the same scale-class as idiomatic phrasal verbs although they are syntactically different in many ways. Furthermore, we observe the syntactic and semantic gradience between them, using corpus-based evidence.

Among VPCs, the main concern in this study, with much literature review, was phrasal verbs, so that prepositional verbs and phrasal prepositional verbs were not dealt with much. Quirk et al. (1985) syntactically classified particles into three groups, that is, adverbials, prepositionals, and both of them (adverbials and prepositionals), but they did not investigate the actual percentage of them used. Hence this study clarified the percentage of the adverbial and prepositional particles, using corpus research, as shown in Tables 1 and 2. In the course of this research, I proposed a gradient analysis, and eventually presented a specific formulation (3) by using the native corpus BNC, based on the gradience of the adverbial degree. As stated in section 2.2., Kennedy (1920) pointed

out that the two particles *up* and *out* are the most important among phrasal verbs but he didn't present a definite reason. Uchikiba (2005) also took up these two as typical aspectual instances in (40), but the reason was also not clarified. My study, on the other hand, clearly gives the reasons. First, the particles *up* and *out* are the most frequent in number and in percentage as shown in Table 1 and in formulation as well (3). Second, according to my formulation (3), they are more adverbial ones, that is, structurally closer to verbs, not nouns, which means that they are therefore closer to typical phrasal verbs. In other words, if particles are less adverbial or more prepositional, they will be closer to object nouns, this in turn means that they are more like prepositional verbs. As shown in section 4.2., other than completive phrasal verbs there are a few types of aspectual verbs, such as inceptive, continuative, and iterative, but most of the researchers regard only completive as aspectual phrasal verbs. My study also clearly explains the reason why most researchers think of only completive as aspectual phrasal verbs. That is, a completive notion is related to this kind of typical verbal notion of the phrasal verbs and it is less connected to the nominal features of prepositional verbs. Fukui (2006) presents semantic scale analysis on phrasal verbs, using the notion of the degree of idiomaticity, and he mainly addresses phrasal verbs and not prepositional verbs. Corpus linguists such as Liu (2011) also focus mainly on phrasal verbs so that they do not deal with prepositional verbs. Table 3 shows that more attention is, therefore, needed on the prepositional side of the VPCs. Table 4 then shows that many researchers classify phrasal verbs into three types, but these distinctions are vague and not so clearly identified as Bolinger (1971) and Gries (2003) (see section 4.7) state. As in sentences (30) and (31) and section 4.6., it was also shown that in phrasal verbs, there are three kinds, which are literal, idiomatic and aspectual, although in prepositional verbs there are only two kinds; literal and idiomatic. As just mentioned, this is because phrasal verbs are close to verbs containing aspectual features, while prepositional verbs are close to nouns which lack aspectual ones. And, in the last place, it is suggested that these distinctions in question are gradient and my newly-established gradient analysis has the key to clarify them successively.

Other than aspectual features, phrasal verbs and prepositional verbs are not only syntactically but also phonologically different in many respects, that is, adverb insertion, stress patterns and intonational units and so on. But they sometimes show the same kind of linguistic behavior when they have idiomatic meanings, as in the case of particle movement as shown in (35) in section 4.5. Sinclair (1991) explains them by using the idiom

principle which refers to figurative idioms. He also presents the open-choice principle which usually has a literal meaning. Therefore, besides syntactic and phonological properties, we need to take into consideration the semantic properties of phrasal verbs such as idiomaticity or polysemy in a more explicit way. And this may lead to a deeper understanding of the different usage in the PVCs between native speakers and Japanese EFL learners. Besides this, I will make a comparison between them with respect to frequency analysis in the PVCs, supported by elicitation test data in further research. This will make the characteristics of the Japanese EFL learners' tendency of usage much clearer.

It is pointed out that the corpus approach has a clear disadvantage for the description of language use, although corpora are the primary source of data for the study of language use (Mönnink, 1997; Aats, 1991). Mönnink (1997) says that the inherent restrictedness of corpora becomes problematic when investigating a relatively infrequent phenomenon, giving the variation in the constituent structure of the noun phrase as an example. She argues that the combination of corpus and elicitation data forms a valuable contribution to the description of language use, and discusses a way of supplementing corpus data through elicitation techniques. She also discusses various design issues of elicitation experiments and presents some examples of actual tests, using the study of non-regular noun phrases as an example.

Traditionally, data for linguistic research is gained by sampling natural language corpora. However, Druskat (2010) also uses elicitation experiments for studying the distribution of additive particles such as *also* and *too*. For the purpose of his study, he has created six online questionnaires to test three hypotheses about the distribution of *also* and *too* because they are supposed to be cost-effective and highly customizable.

The elicitation test techniques adopted in their research are reinforced by Mönnink (1997), Gilquin and Gries (2009). Mönnink (1997) suggests mainly three reasons for the elicitation tests. Firstly, elicitation data must be considered, especially in the case of a survey of English usage, since the exclusive use of corpus data would provide too narrow a basis for a profound study of relatively infrequent phenomena. It then follows that experimental data can serve to supplement corpus data. Secondly, the corpus linguist can use the acceptability judgments of informant in order to decide which constructions to incorporate into the grammar. Thirdly, the results may also pose questions for further investigation through corpus searches or for additional elicitation experiments.

Elicitation tests can be divided into several types of performance test as well as some types of judgment test. The performance tests imposed upon non-native speakers contain composition, operation, and completion, while the judgment tests mainly for native speakers hold evaluation, preference, similarity, frequency, and normality. Gilquin and Gries (2009) support these judgment tests, addressing a few reasons. Furthermore, they classify linguistic data from three main sources, corpora, the ones from fieldwork, and experimental data. Finally, they argue strongly that corpus linguists should look more into the possibilities of complementing their corpus studies with experimental data.

So far I have shown the possibility of further research using the semantic gradient analysis in the PVCs mainly in the field of linguistics, and relating to the corpus approaches. This could also be possibly done in the same way as in the elicitation approaches. Furthermore, I will apply this kind of analyses to the meaning of the words or the PVCs, enlarging their metaphorical connotations from concrete to abstract or idiomatic, based on the cognitive approaches suggested by Nieda (2006). So far there have been no particular corpus-based frequency studies of the phrasal verbs in Japanese EFL learners although there have been some studies in native English speakers as discussed in Section 4.8. The evidence suggested by Waibel (2007) implies that learners, such as Japanese EFL learners, who lack phrasal verbs in L1 tend to avoid using phrasal verbs in English, while those like German-speaking EFL learners who have phrasal verbs in their L1 do not avoid using these in English. Thus I will conduct research on phrasal verb frequency in the Japanese EFL corpora, comparing those to the native corpora, so as to ensure this postulation objectively. Along with this, I will investigate the Japanese learners' avoidance of English phrasal verbs by imposing the same kind of elicitation tests used in Liao and Fukuya (2004) in order to compare non-native speakers with English native speakers. Most researchers have classified phrasal verbs as aspectual and nonaspectual, or literal and figurative but this kind of borderline has not been clearly identified. This study pointed out these insufficient distinctions, showing the gradient borderline based on the corpus research. Frequent verbs such as *make* comprising a number of phrasal and prepositional verbs usually show a high degree of polysemy. In further research, I will classify these polysemous meanings into core meanings and others to compare the difference between native English speakers' usage and Japanese EFL learners in order to clarify the characteristics of each one.

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