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## Compositional phrasal verbs with *up*: Direction, aspect, intensity

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### Introduction

Whereas frozen phrasal verbs clearly do not have the same meaning without the particle and must be listed in the lexicon grammar of idiomatic expressions (e.g., *break up the audience* “cause to laugh,” *burn out the teacher* “exhaust”), it can be argued that compositional phrasal verbs (e.g., *drink up the milk*, *wipe down the countertop*) can be derived from the combined meanings of the particle and the verb. That is, compositional phrasal verbs merely add an aspectual element to the simple verb, and particle usage might be better analyzed as a property of the simple verb.

While some editors might consider such usage as superfluous, something to be avoided in academic articles, many linguists (e.g., B. Hampe 2002) argue that these supposedly “redundant” phrasal verbs carry more meaning than their simple verbs. A. McIntyre (2002:97), for example, posits that *drink up* above implies “maximal effect” on the complement, while *wipe down* suggests that the “the action is performed on a substantial part” of the object. Do compositional phrasal verbs carry specific meanings, or is the connotation merely stylistic, with the particle implying a more informal or colloquial style? Can phrasal verbs indicate emotional involvement on the part of the speaker? How predictable are the meanings associated with a compositional phrasal verb, such as direction, completed aspect, and intensity? And finally, can the use of the particle with compositional phrasal verbs help identify the meaning of the simple verb when it has more than one meaning?

R. Jackendoff (2002:74-80) has discussed many examples of directional and aspectual particles in English. So has D. Bolinger (1971:99), who also looked at phrasal verbs that are “perfective in the sense of attaining a high intensity.” We have added these three dimensions – direction, completed aspect, and intensity – to a lexicon grammar table of compositional phrasal verbs, in an attempt to ascertain the advantages and disadvantages of listing compositional phrasal verbs in a lexicon grammar distinct from frozen ones.

### 1. Frozen vs. compositional phrasal verbs in lexicon grammar tables

This analysis starts from a lexicon grammar table representing an extensive list of transitive and neutral English phrasal verbs that use the particle *up*, combining both idiomatic and compositional cases. This database of over 700 transitive occurrences of *up*, was composed using B. Fraser (1976), R. Spears (1996), *The American Heritage Dictionary* (2000), *The Longman Phrasal Verbs Dictionary* (2000) and *The Cambridge International Dictionary of Phrasal Verbs* (1997).

The first two columns represent potential subjects, or  $N_0$ , which can be either *Human* or *Non-human* or both. This is followed by the *verb* and the *particle* (i.e., *up*) as well as an *example of* a direct object,  $N_1$ , which is also classified by the properties of *Human* and *Non-human*. The next column,  $N_0 V N_1$ , takes into consideration cases where the verb has a similar meaning even if the particle is not used, with a plus indicating such possible sequences as:

- (1) *The child drank (up + E)<sup>1</sup> the milk*

In most cases, this is a clear indication that the phrasal verb should be considered compositional. That is, the verb keeps its regular meaning, but the particle is viewed as an intensifier (*beat up the child*), an aspect marker (*boot up the computer*), or an adverbial noting direction (*drive up prices*).

The next column,  $N_1 V Part$ , considers neutral or ergative verbs, with a plus in that column attesting to the fact that the verb has both a transitive and intransitive linked use, such as:

- (2) *The terrorists blew up the building ⇔ The building blew up*

This is followed by another column of pluses and minuses,  $N_1 V$ , which indicates if a verb can have an intransitive linked use (neutral) even without the particle being expressed:

- (3) *The cook was boiling up the potatoes ⇔ The potatoes were boiling*

This is finally followed by a *Synonym*, a paraphrase of the meaning of the phrasal verb.

Using the  $N_0 V N_1$  column as the main criterion, we divided the original data into two separate tables: (1) idiomatic or frozen expressions (when  $N_0 V N_1 = \text{minus}$ ) and (2) compositional expressions (when  $N_0 V N_1 = \text{plus}$ ). Table 1 represents a sample taken from the 300 *compositional* phrasal verbs only. There were two exceptions to the above syntax-based delimitation, however, that allowed an expression to be listed as compositional even if there was a minus in the  $N_0 V N_1$  column.

**Table 1.** Sample of compositional phrasal verbs with *up*

$N_0$ :: Nhum	$N_0$ :: N-hum	Verb	Particle	Example of $N_1$	$N_1$ :: Nhum	$N_1$ :: N-hum	$N_0$ V $N_1$	$N_1$ V Part	$N_1$ V	Synonym	$N_0$ V $N_1$ Loc $N_2$ = $N_0$ V $N_1$ up	$N_0$ V $N_1$ up = $N_0$ V $N_1$ completely	$N_0$ V $N_1$ up = $N_0$ really V $N_1$
+	+	force	up	the prices	-	+	-	-	-	raise	+	-	-
+	-	form	up	a committee	-	+	+	-	-	organize/form	-	+	-
-	+	freeze	up	the pipes	-	+	+	+	+	block with ice	-	+	+
+	+	frizz	up	POSS-0 hair	-	+	+	-	-	make into curls	-	+	-
-	+	frost	up	the windows	-	+	+	+	+	cover with frost	-	+	+
+	-	fry	up	the eggs	-	+	+	-	+	fry	-	+	-
+	-	gather	up	the toys	-	+	+	-	-	gather/collect	+	+	-
+	-	gobble	up	the cookies	-	+	+	-	-	consume	-	+	+
+	-	grease	up	the pan	-	+	+	-	-	coat/lubricate with grease	-	+	-
+	+	grind	up	the leaves	-	+	+	-	-	pulverize	-	+	+
+	+	grind	up	the meat	-	+	+	-	-	process by turning crank	-	+	-
+	-	hang	up	the banner	-	+	+	-	-	hang	+	+	-
+	-	head	up	the team	-	+	+	-	-	be in charge of/lead	-	+	-
+	+	heal	up	the wound	+	+	+	+	+	heal	-	+	-
+	+	heat	up	dinner	-	+	+	+	-	heat (food)	-	+	-
-	+	heat	up	the pool	+	+	+	+	+	make hotter	-	+	-
+	-	help	up	the lady	+	-	-	-	-	assist in standing	+	-	-
+	-	herd	up	the cattle	+	+	+	-	+	gather	-	+	-
+	+	hike	up	prices	-	+	-	+	-	increase	+	-	-
+	+	hike	up	the skirt	-	+	-	-	-	raise	+	-	-
+	+	hitch	up	the horses	-	+	+	-	-	attach/connect	-	+	-
+	-	hitch	up	the jeans	-	+	-	-	-	raise	+	-	-
+	-	hold	up	POSS-0 hand	-	+	-	-	-	raise body part	+	-	-
+	+	hold	up	the picture	+	+	+	-	-	keep upright/support	+	-	-
+	+	hush	up	the baby	+	-	+	+	+	make quiet	-	+	-
+	+	hype	up	the book	+	+	+	-	-	promote	-	-	+

1.1. Locative Exceptions to  $N_0 V N_1$  criterion

In some cases where the particle appears to be obligatory, the phrasal verb might be considered as being derived from  $N_0 V N_1 Loc N_2$ , where  $Loc N_2$  is a locative prepositional phrase. For example:

- (4) *Government spending forced prices to unprecedented levels* →  
*Government spending forced (\*E + up) prices*
- (5) *Max pinned the photo on the bulletin board* →  
*Max pinned (\*E + up) the photo*

Since the particle *up* can be derived from the phrase *to unprecedented levels* or *on the bulletin board*, we consider these expressions compositional, even though they have a minus in the  $N_0 V N_1$  column. Note that one can also say *prices (are + went) (up + down)* and *the photo is up*, which also lends support to the fact that these expressions are compositional.

1.2. Neutral Verb Exceptions to  $N_0 V N_1$  criterion

The second set of exceptions concerns a few ergative or neutral cases, where particle use is obligatory in the transitive, while it is optional in the intransitive:

- (6) a. *The visit brightened (\*E + up) Mary*  
 b. *Mary brightened (E + up) with the visit*

In some cases, the particle is obligatory in the transitive, while it must be deleted in the intransitive:

- (7) a. *The garlic smelled (\*E + up) the kitchen*  
 b. *The kitchen smelled (E + of garlic)*  
 c. *\*The kitchen smelled up (E + of garlic)*

We consider these few cases as compositional also, since the particle can or must be deleted in the intransitive, even though it cannot be deleted in the transitive.

Following G. Nunberg et al. 1994 and D. McCarthy et al. 2003, these cases suggest that compositionality might be better viewed on a continuum with varying degrees of compositionality – from truly opaque to clearly compositional. However, for computer processing of phrasal verb data, linguists generally must choose to have the phrasal verb listed as either idiomatic (frozen), or as derivable (compositional) from a simple verb plus particle, and not along a continuum of degrees of compositionality.

## 2. Directional phrasal verbs derived from prepositional phrases

The notion that a phrasal verb can be considered as derived from a locative prepositional phrase not only involves cases where the particle *must* be used (first set of exceptions above), it also entails some cases where the particle is *optional*:

(8) *Max held the picture against the wall* → *Max held (E + up) the picture*

(9) *The child kicked the ball into the air* → *The child kicked (E + up) the ball*

We have thus added derivability from a prepositional phrase as a new property to our table of compositional phrasal verbs. As can be seen in Table 1, this is indicated by a plus in the column:

(10)  $N_0 V N_1 Loc N_2 = N_0 V N_1 up$

Following A. Guillet & C. Leclère 1992, we used two tests to confirm this directional or locative property. First, there must be a natural answer to the question:

(11) *(Prep + E) where did  $N_0 V N_1$ ?*

And secondly, the following phrase, with minor prepositional variation, must also be acceptable:

(12)  $N_1 (is + goes + comes) Loc N_2$

For example, the following sentences were used to verify the directional/locative property of the phrasal verbs *force up*, *pin up*, *hang up*, and *kick up*:

(13) a. *Where did government spending force prices?*  
b. *Prices are at unprecedented levels*

(14) a. *Where did Max pin the photo?*  
b. *The photo is on the bulletin board*

(15) a. *Where did Max hang the picture?*  
b. *The picture is against the wall*

(16) a. *Where did the child kick the ball?*  
b. *The ball is in the air*

However, other meanings are also associated with compositional phrasal verbs, such as completed aspect and high intensity.

### 3. Aspect and Intensity

There are at least two types of aspect<sup>2</sup> involved with the particle *up*: completed action and high intensity, which we have also added to the far right of the lexicon grammar of compositional phrasal verbs (cf. Table 1). Completed action is indicated under the column:

(17)  $N_0 V N_1 up = N_0 V N_1 completely$

Although we only indicate the word *completely* at the top of this column, other more natural wordings are possible. First, we used the acceptability of inserting the adverb *completely* or *securely* as a test for completed action:

(18) *The garbage blocked the sink completely* →  
*The garbage blocked up the sink*

(19) *Max locked the car securely* → *Max locked up the car*

If the adverbs *completely* or *securely* seemed awkward, but the meaning of completed action still seemed obvious, we tried the phrase *finished V-ing*:

(20) *The waiter finished adding the bill* → *The waiter added up the bill*

or the expression *succeeded in V-ing*:

(21) *Max succeeded in booting his computer* → *Max booted up his computer*

Experiments by B. Hampe (2002:86) involving judgments by native speakers on similar sentences (with and without the particle) furthermore show that context can influence the “acceptability of completive particles in combination with accomplishment verbs.” For example, speakers generally “dispreferred” particle usage in the following sentence:

(22) a. *The cleaning people polished (up) all the furniture yesterday, but it still does not shine*

but preferred the particle in the related sentence implying completed action:

(22) b. *The cleaning people polished (up) all the furniture yesterday, and now it shines as if brand-new*

Finally, high intensity is indicated by a plus in the last column of the table:

(23)  $N_0 V N_1 up = N_0 really V N_1$

We used the acceptability of inserting the adverb *really* as a test for this column:

(24) *The coach really psyched the team* → *The coach psyched up the team*

(25) *The racer really revved the engine* → *The racer revved up the engine*

As can be seen in the last three columns of Table 1, more than one meaning can be associated with an individual particle. For example, *gather up* and *hang up* not only imply direction, but also completion, while *freeze up* and *gobble up* not only entail completion, but also intensity. In one instance (*vomit up*), both direction and intensity can be implied.

In Table 2, we give the results and percentages associated with the various meanings that the 300 compositional phrasal verbs using *up* can undergo. Directional meanings can be associated with 15% of our sample, completed action with almost 80%, and high intensity in 34% of the cases. The most frequent combination is completed action and high intensity at 25%.

**Table 2.** Meanings associated with compositional phrasal verbs with *up*

Direction (all cases)	Completed Action (all cases)	High Intensity (all cases)	Direction and Completed Action	Direction and High Intensity	Completed Action and High Intensity	Direction, Completed Action and High Intensity
47	242	105	14	1	76	2
15.3%	78.8%	34.2%	4.6%	0.3%	24.8%	0.7%

#### 4. Discussion

Given that high intensity and completed action overlap in 25% of the cases, how might one translate these superfluous particles, if at all? For example, to translate the equivalent of *freeze up* into French, one might use *complètement* “completely” or *tout à fait* “absolutely” to express completed aspect and *vraiment* “really” for high intensity:

- (26) a. *The bad weather froze up the pipes*  
 b. *Le mauvais temps a (complètement + tout à fait) gelé les tuyaux*  
 c. *Le mauvais temps a vraiment gelé les tuyaux*

Completed aspect could also be expressed with the adjective *tous* “all” added before certain complements, as in the case of *gobble up*:

- (27) a. *The child gobbled up the cookies*  
 b. *L'enfant a avalé tous les biscuits*

While context may not be adequate to justify one French translation over the other, trying to incorporate both connotations of the particle *up* at the same time might seem awkward unless some special intonation were to be used:

- (28) *?Le mauvais temps a vraiment complètement bloqué les tuyaux*



Even if the French translation does seem natural, it still appears to be excessive to suggest both completion and intensity for one instance of the optional particle *up*:

(29) *L'enfant a vraiment avalé tous les biscuits*

Furthermore, in English these extra adverbs could **also** be expressed *without*, as well as *with* the particle:

(30) *The bad weather (completely + really) froze (E + up) the pipes*

(31) *The child (E + really) gobbled (E + up) (E + all) the cookies*

Rather than distinguishing intensity from completed action, it might be better then to merely indicate that the simple verb takes on the element of "Aspect," such as what is currently used in FrameNet (J. Ruppenhofer et al. 2006). However, when we start comparing different particle usage with the same verb, it can be argued that the choice of particle might actually help differentiate intensity from completion. With the verb *drink*, for example, the particle *up* denotes completion, while the particle *down* signals intensity or quickness:

- (32) a. *The child drank up the milk*  
 b. *The child drank down the milk*

On the other hand, a number of writers and editors view optional particles as merely stylistic, with particle usage often implying a more informal or colloquial style. In the final edit of P. Machonis (2008), a monograph on experiential learning, the general editor removed many "superfluous" particles, such as the underlined particles from the following sentences:

(33) *Participants are split up into small groups with an assigned area of the city to explore in their three to four hours*

(34) *Students would be encouraged to seek out personally relevant information*

Perhaps influenced by dictionary entries which occasionally indicate "informal" next to some phrasal verbs, the editor preferred to create a more academic tone by eliminating any superfluous particle usage.

In addition to stylistic concerns, B. Hampe (2002:101) suggests that redundant phrasal verbs can also function as an "index of emotional involvement of the speaker." That is, the use of the particle can at times play a pragmatic role, adding a subjective element of meaning, an indirect way of communicating the speaker's attitude or emotion. Perhaps some of the authors in the above cited monograph were implying a more intimate involvement on their part in designing experiential learning activities for their students. B.

Hampe does mention, however, that this is about “speaker preferences” and not something that is systematic or rule governed.

More importantly, we might ask if the use of the particle with compositional phrasal verbs plays an indirect role in identifying the meaning of a potentially ambiguous simple verb. In some cases, it is clearly not so. For example, the particle *up* can appear with multiple senses of the verb *back*:

- (35) a. *Max backed (E + up) the car* [= drive in reverse]  
 b. *The linguist backed (E + up) the idea* [= prove to be true]  
 c. *The dean backed (E + up) the professor* [= support]  
 d. *The band backed (E + up) the pianist* [= accompany musically]

However, in examining many examples, we notice that the choice of particle for a compositional phrasal verb, can at times help identify a specific meaning when the simple verb is potentially ambiguous, such as in the case of *boot*:

- (36) a. *Max booted (E + up) the computer* [= start]  
 b. *The boss booted (E + \*up) the worker* [= fire]  
 c. *The agent booted (E + \*up) the car* [= disable]  
 d. *The child booted the ball (E + \*up + around)* [= kick]

Here the choice of the optional particle *up* appears to disambiguate between “start,” as in (30a) and “fire” (30b) or “disable” (30c). Likewise, the choice of the particle *around* clarifies the meaning of *boot* “kick” in (30d). In the same way, one can argue that the choice of optional particles can help distinguish the various meanings of the simple verb *call*:

- (37) a. *Ann called (E + up) Max* [= phone]  
 b. *The chairperson called (E + \*up) the meeting* [= convoke]  
 c. *The politicians called (E + \*up) the election* [= predict result of]  
 d. *The teacher called (E + \*up + out) the names* [= announce]

B. Hampe gives further evidence that using the particle with compositional phrasal verbs helps to make the meaning clear when the simple verb has multiple connotations. According to B. Hampe (2002:60):

*Redundant phrasal verbs are very often variants or synonyms of some selected senses of the corresponding (polysemous) simple verbs only. This implies that they are actually more specific in meaning than their bare-verb counterparts.*

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This disambiguation factor is therefore a very strong argument in favor of separating compositional from idiomatic phrasal verbs, with optional particle usage being indicated as a property of the simple verb. For example, the simple verb *call* “phone” can take the particle *up* but not *out*, while the simple verb *call* “announce” can take the particle *out* but not *up*. On the other hand, the disadvantage of treating compositional phrasal verbs separately from

frozen ones is that the simple verb tables will become enormously complex when all English particles (B. Fraser 1976 lists fifteen different particles) are taken into account.

In conclusion, although elements such as stylistic levels or emotional involvement of the speaker are beyond the scope of lexicon grammar, nuances involving direction, completed aspect, and intensity are indeed associated with compositional phrasal verbs involving the particle *up*. Completed action is the most common meaning added; intensity is the second most frequent characteristic, with direction being the least common element added. The frequency of overlap between intensity and completed action, however, suggests that the various meanings are at times fuzzy, or perhaps dependent on context, and that we should not try to distinguish completed action from high intensity. Finally, the use of an optional particle can at times help distinguish potentially polysemous simple verbs, and shows that their use, therefore, is not simply redundant, but indicative of the speaker actually focusing in on or subtly signaling a specific meaning.

## Notes

1. Examples that contain parentheses indicate that any of the elements is possible or, if starred, not possible. The letter *E* stands for an *empty string*. Thus the (a) sentences below should be understood as meaning both (b) and (c):

- (i) a. *The child drank (up + E) the milk*  
     b. *The child drank up the milk*  
     c. *The child drank the milk*
  
- (ii) a. *Government spending forced (\*E + up)*  
     b. *\*Government spending forced prices*  
     c. *Government spending forced up prices*

2. Jacob Grimm first extended the Slavic term *vid* “aspect” to non-Slavic languages, such as Germanic prefixes expressing successful, completed actions (R. Binnick 1991:141). Although some linguists (B. Comrie 1976) seem to limit the use of the term *aspect* to verbal tenses such as perfective and imperfective, others (D. Bolinger 1971, R. Binnick 1991, R. Jackendoff 2002) extend the use to include compositional phrasal verb particles. While aspect in Russian is clearly and obligatorily marked and its meaning relatively precise to native speakers, in English the term *aspect* is neither perfectly clear, nor is it something that is obligatorily marked. Thus D. Bolinger (1971:98) and R. Binnick actually prefer the term *Aktionsart*, or *modes d’action*, but opt to use the “less awkward” term *aspect*. B. Fraser (1976:6) simply uses the expression “completive sense.” We use the term *aspect* to indicate that the particle of a compositional phrasal verb can denote a completed action, as well as high intensity.

## References

- American Heritage Dictionary of the English Language*. 2000. Fourth Edition. Boston: Houghton Mifflin Company.
- Binnick, Robert I. 1991. *Time and the Verb: A guide to tense and aspect*. Oxford: Oxford University Press.
- Bolinger, Dwight. 1971. *The Phrasal Verb in English*. Cambridge, MA: Harvard University Press.
- Cambridge International Dictionary of Phrasal Verbs*. 1997. Cambridge: Cambridge University Press.
- Comrie, Bernard. 1976. *Aspect: An introduction to the study of verbal aspect and related problems*. Cambridge: Cambridge University Press.
- Fraser, Bruce. 1976. *The Verb-particle Combination in English*. New York: Academic Press.
- Guillet, Alain ; Christian Leclère. 1992. *La structure des phrases simples en français, Constructions transitives locatives*. Geneva: Droz.
- Hampe, Beate. 2002. *Superlative Verbs: A corpus-based study of semantic redundancy in English verb-particle constructions*. Tübingen: Gunter Narr Verlag.
- Jackendoff, Ray. 2002. English Particle Constructions, the Lexicon, and the Autonomy of Syntax. In *Verb-particle Explorations*, Nicole Dehe, Ray Jackendoff, Andrew McIntyre, Silke Urban (eds.), 67-94, New York: Mouton de Gruyter.
- Longman Phrasal Verbs Dictionary*. 2000. Essex: Pearson Education Limited.
- Machonis, Peter A. (ed). 2008. *Shatter the Glassy Stare: Implementing Experiential Learning in Higher Education*. NCHC Monograph Series. University of Nebraska-Lincoln: National Collegiate Honors Council.
- McCarthy, Diana; Bill Keller; John Carroll. 2003. Detecting a Continuum of Compositionality in Phrasal Verbs. *Proceedings of the ACL 2003 Workshop on Multiword Expressions*. <<http://www.aclweb.org/anthology-new/W/W03/W03-1810.pdf>>
- McIntyre, Andrew. 2002. Idiosyncrasy in Particle Verbs. In *Verb-particle Explorations*, Nicole Dehe, Ray Jackendoff, Andrew McIntyre, Silke Urban (eds.), 95-118, New York: Mouton de Gruyter.
- Nunberg, Geoffrey; Ivan A. Sag; Thomas Wasow. 1994. Idioms. *Language* 70. 491-538.
- Ruppenhofer, Josef; Michael Ellsworth; Miriam Petruck; Christopher Johnson; Jan Scheffczyk. 2006. *FrameNet II: Extended Theory and Practice*. <<http://framenet.icsi.berkeley.edu/book/book.html#id162>>
- Spears, Richard A. 1996. *Basic Phrasal Verbs*. Lincolnwood, IL: NTC Publishing Group.

## Summary - Compositional phrasal verbs with *up*: Direction, aspect, intensity

This study examines a corpus of 300 compositional phrasal verbs in English using the particle *up*. Whereas frozen phrasal verbs clearly do not have the same meaning without the particle and must be listed in the lexicon grammar of idiomatic expressions (e.g., *break up the audience* “cause to laugh”), compositional phrasal verbs merely add an aspectual element to the simple verb, and particle usage might be better analyzed as a property of the simple verb. Although this meaning is difficult to characterize precisely, it generally indicates direction (*ride up the elevator*), completion (*open up the store*), intensity (*hype up the book*), or combinations (*polish up the silverware*, completion and intensity). These properties are added to the table of compositional phrasal verbs. Optional particle usage can also identify the meaning of a potentially ambiguous simple verb. For example, the simple verb *call* “phone”

can take the particle *up* but not *out*, while the simple verb *call* “announce” can take the particle *out* but not *up*. The simple verb tables, however, will become enormously complex when all English particles (fifteen different particles according to B. Fraser 1976) are taken into account.

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