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Transitive phrasal verbs with the particle *out*: A lexicon-grammar analysis*

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Abstract

Using a lexicon-grammar approach developed by Maurice Gross (1992), this project involved systematically mapping the structural properties of over 550 transitive phrasal verbs with the particle *out*, *PV out*. The data is analyzed in terms of two main tables or matrices. The first table illustrates the morpho-syntactic properties of purely simple *PV out* expressions, like *freak out the kid* ↔ *freak the kid out*. The second table illustrates the morpho-syntactic combinations of complex *PV out* expressions, as in *take the boxer out of the fight*. The research shows that *PV out* expressions may involve up to 25 syntactic features, including N_2 promotion, as in *The girl spilled the water out of the glass* → *The girl spilled the glass out*, complex-neutral constructions, like *The water spilled out of the glass*, and reversed constructions, like *The company farmed the oil out of the land* → *The company farmed the land out of oil*. The research shows that these syntactic combinations are highly lexical in that a unique combination of features applies to individual phrasal verbs.

1. Introduction

Verb particle constructions or phrasal verbs, *PV*, have long intrigued linguists, since van Dongen (1919), Bolinger (1971) and Fraser (1976), and up to recent times as reflected in the works of Jackendoff (2002) and Dehé (2002). This article builds on recent work on phrasal verbs by Machonis (2008 & 2009), who uses a lexicon-grammar framework (Maurice Gross 1992 & 1994) to provide an extensive description of a full body of language data in order to draw conclusions. We constructed an exhaustive lexicon-grammar of 562 purely transitive phrasal verbs with the particle *out*, *PV out*, indicating up to 25 varying syntactic properties and transformations specified by plus or minus signs (cf. sample Tables 1-5 in this article). Even though certain verb classes show some syntactic similarities in our classification, it will be shown, nevertheless, that this information is highly lexical with a unique combination of pluses or minuses applying to individual verbs rather than to broad semantic categories.

In constructing lexicon-grammar tables, we use elementary sentences (Gross 1996) of the type subject-verb-particle-essential complements, such as $N_0 V Part N_1$, where N_0 indicates the subject and N_1 indicates the first complement. All of the *PV out* expressions analyzed are transitive and can appear in both the continuous and discontinuous order, as in the following examples where the arrow (↔) indicates relative synonymy:

(1) $N_0 V N_1 out$ ↔ $N_0 V out N_1$

Clowns totally *freak* Peter *out* ↔ Clowns totally *freak out* Peter¹

* I would like to thank my professor Peter A. Machonis for his inspiration and guidance throughout this project. I would also like to thank the audiences at the SECOL 77 conference and FIU's 2010 linguistic colloquium for their comments and feedback.

In contrast to *intrinsically* simple expressions like (1) above, some of these *PV out* constructions can also be analyzed as complex expressions. These introduce a second complement indicated by N_2 , representing longer prepositional phrases generally by *out of*, signified as $N_0 V N_1 \text{ out of } N_2$. While simple *PV out* constructions may appear in both the continuous and discontinuous form, complex expressions can only appear in the discontinuous form.

(2) $N_0 V N_1 \text{ out of } N_2 \leftrightarrow *N_0 V N_1 N_2 \text{ out of}$

Katie *took* the booties *out of* the basket \leftrightarrow *Katie *took* the booties the basket *out of*

All the complex constructions examined, however, have the possibility of being reduced to simple *PV out* phrases, in which case the particle can be moved.

(3) $N_0 V \text{ out } N_1 \leftrightarrow N_0 V N_1 \text{ out}$

Katie *took out* the booties \leftrightarrow Katie *took* the booties *out*

In our lexicon grammar tables, subjects and complements were analyzed as simple NPs entailing the properties of human (*Nhum*) and non-human (*N-hum*) indicated by a plus or minus value in the appropriate column. The meaning of the *PV* was also included in the table under *synonym*. The data of 562 *PV out* expressions² was divided into two tables: (1) simple *PV out* expressions of the form $N_0 V N_1 \text{ out}$, consisting of 201 constructions, and (2) complex *PV out* expressions, of the forms $N_0 V N_1 \text{ out of } N_2$, $N_0 V N_1 \text{ out } N_2$, and $N_0 V N_1 \text{ out Prep } N_2$ –all of which can be reduced to the simple form, consisting of 361 constructions. The tables (c.f. sample tables 1-5) include morphological information on the nature of the subject and possible complements, as well as the subset of related sentences and transformations in the sense of Harris (1956).

2. Simple *PV out*

Section 2 briefly discusses the disambiguation and compositional status of *PV out* expressions. In section 2.1, it will be shown that much of the compositional status of *PV out* expressions is highly contextual. Section 2.2 presents the variety of transformations intrinsically simple *PV out* expressions exhibit showing that a unique set of features (plus or minus) apply to each phrasal verb and that this data is highly lexical and cannot be generalized based solely on semantic categories. Section 2.3 presents a sample table of the data.

2.1 Semantic Compositionality of Simple *PV out*

Bolinger (1971) was among the first to recognize that particles can contribute an aspectual or intensifying sense to regular verbs. Others have analyzed the compositional status of *PV* expressions as a semantic continuum ranging from fully transparent to fully idiomatic (Bolinger 1971, Fraser 1976, Dehe and Jackendoff 2002, Baldwin 2002). While such analyses provide a more comprehensive view of the verb particle combination, compositionality in a lexicon-grammar framework entails simply two distinct semantic classes defined by the column, $N_0 V N_1$, which indicates relative synonymy with $N_0 V N_1 \text{ out}$ (Machonis 2009). The following examples, where the particle *out* is an optional element, seem to imply some type of aspectual or intensifying interpretation to the simple verb and are thereby viewed as compositional.

(4) $N_0 V N_1 \leftrightarrow N_0 V N_1 \text{ out}$

- a. Classical music *mellows* Max \leftrightarrow Classical music *mellows* Max *out*
b. The boxer *punched* the opponent \leftrightarrow The boxer *punched* the opponent *out*

A plus [+] in the column $N_0 V N_1$ serves to distinguish compositionally transparent *PV out* from idiomatic *PV out* expressions.³ In 92 of the 200 simple *PV out* entries examined, the particle can be deleted showing that almost half of these expressions are compositional. On the other hand, a negative value in the $N_0 V N_1$ column indicates the particle is an essential element of the verb phrase illustrating a more idiomatic *PV* construction. Idiomatic *PV*'s, such as **(5)**, are those that cannot delete the particle without causing a significant change in meaning and thus must be listed in the lexicon as complete units (Jackendoff 2002).⁴ The (\neq) means the expressions are not synonymous.

(5) $N_0 V N_1 \neq N_0 V N_1 \text{ out}$

- a. The gangsters *took* the boy \neq The gangsters *took* the boy *out* 'kill'
b. The mischievous students *burn* the professor \neq The mischievous students *burn* the professor *out* 'exhaust'

In these examples although the $N_0 V N_1$ column forms an acceptable expression, as in *The gangster took the boy* meaning literally 'to take', they do not mean the same as the idiomatic verb plus particle combination *The gangster took the boy out*⁵ meaning 'to kill'. The particle is as an essential component to the construction and the *PV* expression is consequently non-compositional.

Deleting the particle in other idiomatic *PV*'s can sometimes result in an unacceptable $*N_0 V N_1$ expression altogether, as in **(6)**.

(6) $*N_0 V N_1 \rightarrow N_0 V N_1 \text{ out}$

- a. *Talented journalists will *knock* a story \rightarrow Talented journalists will *knock* a story *out* 'produce quickly'
b. *Casey really needed to *get* her feelings \rightarrow Casey really needed to *get* her feelings *out* 'release by saying'

The unacceptability of the single verb construction, $*N_0 V N_1$, above is attributed to the arguments of the verb, as it does not allow **to knock a story* or **to get your feelings*. When the particle is added to the construction, it allows the verb to introduce complements that it would not typically take, or as Ishikawa (1999) notes, it allows for unusual selectional properties, as in *to knock a story out* and *to get your feelings out*.

Machonis (2008) observes that many of these expressions can be disambiguated by specifying more precisely the type of arguments the verbs may take. For instance, the following two expressions yield semantically different interpretations solely because of the difference in verbal complements, where in this case distinguishing between the literal and idiomatic expression can be disambiguated by the [+/- hum] feature.

(7)

- a. The boxer will *knock* the fighter *out* 'render unconscious'
b. The boxer will *knock* a good story *out* 'produce quickly'

While the verb phrase under the literal interpretation (7a) selects its usual complement, the verb phrase in (7b) selects an atypical complement and is therefore idiomatic. Other examples show that disambiguating *PV out* expressions can go beyond specifying the argument of the verb and the [+/-hum] feature, thereby indicating that much of this information is intrinsically pragmatic.

- (8)
- | | |
|---|--------------------------|
| a. The gangster <i>took</i> the boy <i>out</i> (of the fight) | ‘withdraw/ remove’ |
| b. The gangster <i>took</i> the boy <i>out</i> (to the fight) | ‘take to a social event’ |
| c. The gangster <i>took</i> the boy <i>out</i> | ‘kill’ |
- (9)
- | | |
|--|------------------------|
| a. The boss <i>punched</i> the employee <i>out</i> (of work) | ‘record end work time’ |
| b. The boss <i>punched</i> the employee <i>out</i> | ‘render unconscious’ |

(8) and (9) show that the direct object of the verb does not distinguish the literal from the idiomatic expression. Examples (8a-b) and (9a) can be analyzed as complex *PV* expressions that introduce an implicit or explicit second complement, N_2 , into the construction that can be analyzed as a locative particle. When this longer expression is made explicit, it serves as a distinguishing factor between its idiomatic counterparts, examples (8c) and (9b). For this reason, disambiguating these examples requires that the particle be specified according to the interpretation it conveys, i.e. whether it forms a complex expression indicating an implicit (or explicit) prepositional phrase, or whether it forms a simple *PV* expression of the aspectual type. Furthermore, when the longer expression in the complex *PV* construction is not explicit, disambiguating between these expressions is solely pragmatic, whereas when the longer expression is made explicit disambiguation between the two lexical entries requires distinguishing the particles *of* and *to* of the prepositional phrase as in (8a-b). These expressions were disambiguated in the lexicon-grammar by entering examples (8a-b) and (9a) in the complex *PV out* chart as separate entries and examples (8c) and (9b) in the simple *PV out* chart.

2.2 Simple *PV out*: The Neutral Construction

Simple transitive *PV outs* exhibit the causative alternation (Levin 1993) or the neutral construction (Boons, Guillet, & Leclère 1976) in 85 of the 200 entries examined. The causative alternation or neutral construction is a process in which transitive *PV out* undergoes an intransitive transformation. In the process of intransitivizing, the N_I rises and takes the subject position and the N_0 is explicitly omitted from the construction, yielding the following derivation:

- (10) $N_0 V N_1 out \rightarrow N_1 V out$
- | | | |
|--|---|-----------------------------------|
| a. The chef <i>rolled</i> the dough <i>out</i> | → | The dough <i>rolled out</i> |
| b. The couple <i>aired</i> their problems <i>out</i> | → | Their problems <i>aired out</i> |
| c. The accountant <i>balanced</i> the checkbook <i>out</i> | → | The checkbook <i>balanced out</i> |

Some of these verbs are fully compositional, $N_0 V N_1 \leftrightarrow N_0 V N_1 out$, and also exhibit the neutral construction with or without the presence of the particle, $N_I V \leftrightarrow N_I V out$, showing that the particle is an optional element in the neutral structure. This combination is indicated in the lexicon-grammar tables by a [+] in all of the following columns, as we can see for *spread out* in (11).

(11)

- a. $N_0 V N_1$ The doctor *spread* the patient's legs
- b. $N_0 V N_1$ **out** The doctor *spread* the patient's legs *out*
- c. $N_1 V$ The patient's legs *spread*
- d. $N_1 V$ **out** The patient's legs *spread out*

Other *PV out* expressions only exhibit the neutral structure when the particle is part of the construction and deleting the particle in the neutral structure will render the expression unacceptable. Out of the 85 *PV out* expressions that exhibit the causative alternation, 60 or 70% of them require that the particle be an essential component to the transformation. This feature is demonstrated in the lexicon-grammar table with a [-] under the column $N_1 V$ but [+] under the column $N_1 V$ **out**, as in *roll out* in (12).

(12)

- a. $N_0 V N_1$ The chef *rolled* the dough 'flatten by rolling'
- b. $N_0 V N_1$ **out** The chef *rolled* the dough *out*
- c. $*N_1 V$ *The dough *rolled*
- d. $N_1 V$ **out** The dough *rolled out*

Not all the verbs that are fully compositional undergo the causative transformation; thus, there are some verbs which display full compositionality but do not undergo the derivation, like (13).

(13)

- a. $N_0 V N_1$ The professor *argued* the situation 'discuss'
- b. $N_0 V N_1$ **out** The professor *argued* the situation *out*
- c. $*N_1 V$ *The situation *argued*
- d. $*N_1 V$ **out** *The situation *argued out*

Then, there are cases in which the phrasal verb is non-compositional and does not undergo the causative alternation, as in (14).

(14)

- a. $*N_0 V N_1$ *The professor *talked* the situation 'discuss'
- b. $N_0 V N_1$ **out** The professor *talked* the situation *out*
- c. $*N_1 V$ *The situation *talked*
- d. $*N_1 V$ **out** *The situation *talked out*

But there are also cases in which the phrasal verb is non-compositional, $*N_0 V N_1$, but can undergo the causative alternation with or without the particle making the particle an optional element in the transformation, even though it is an essential component to the transitive construction, as in (15).

(15)

- a. $*N_0 V N_1$ *High speed racing *wears* the tires 'exhaust'
- b. $N_0 V N_1$ **out** High speed racing *wears* the tires *out*

(20)

- a. * $N_0 V N_1$
- b. $N_0 V N_1$ **out**
- c. $N_1 V$
- d. * $N_1 V$ **out**

If the single verb expression is unacceptable $*N_0 V N_1$, and it cannot undergo the neutral construction with the particle $*N_1 V$ **out**, then it cannot undergo the neutral construction without the particle $*N_1 V$; thus, it must also have a [-] value under $N_1 V$, as in (20) above.

2.3 Simple PV *out*: The lexicon-grammar table

Table 1 is a sample lexicon-grammar of the purely simple *PV out* constructions. The first two columns represent potential subjects, N_0 , which are specified for human, *Nhum*, or non-human, *N-hum*, followed by a *verb* and an *example* of a direct object, N_1 , which is also classified as *Nhum* or *N-hum*. The next column, $N_0 V N_1$, indicates the compositional status of the phrasal verb as defined by a lexicon-grammar approach. A [+] value under this column indicates the particle is optional, whereas a [-] value indicates the particle is an essential component to the construction and must therefore be lexically listed as an idiomatic expression. Following this row is the $N_1 V$ **out** column, where a [+] indicates the *PV* expression can undergo the causative alternation. Finally, the $N_1 V$ column demonstrates if the particle is a necessary component for the causative transformation. This row is then followed by the particle *out* and a synonym.

Table 1

Sample matrix of Simple PV out

$N_0 :: Nhum$	$N_0 :: N-hum$	Verb	Example of N_1	$N_1 :: Nhum$	$N_1 :: N-hum$	$N_0 V N_1$	$N_1 V out$	$N_1 V$	Particle	Synonym
+	-	deck	the room	+	+	+	-	-	out	improve the look of
+	+	drag	the story	-	+	-	+	+	out	extend
+	+	draw	the lecture	-	+	-	-	-	out	extend
+	-	draw	Katie	+	+	-	-	-	out	reveal
+	+	dry	the tie dye	-	+	+	+	+	out	dry
+	+	dry	the alcoholic	+	-	-	+	-	out	cure of alcoholism
+	-	eat	Mary	+	-	-	-	-	out	perform sexual act
+	+	fake	Katie	+	-	+	-	-	out	trick
+	+	fatten	the pig	+	+	+	+	+	out	make more fat
+	-	feel	the situation	+	+	-	-	-	out	make an opinion
+	-	fight	the situation	-	+	+	-	-	out	argue
+	-	figure	the puzzle	+	+	+	-	-	out	solve
+	-	fill	the lines	-	+	+	-	-	out	complete by writing
+	-	fold	the map	-	+	-	+	-	out	unfold
+	+	follow	orders	-	+	+	-	-	out	follow
+	+	freak	Max	-	+	+	+	+	out	scare
+	-	get	feelings	-	+	-	-	-	out	reveal by saying smth difficult
+	+	grind	the news	-	+	+	-	-	out	produce
+	+	gross	Katie	+	-	+	-	-	out	disgust
+	-	hammer	the issue	-	+	-	+	-	out	settle an agreement
+	+	hammer	the metal	-	+	+	-	-	out	make flat
+	-	hear	Max	+	-	+	-	-	out	hear everything from
+	+	hold	the paper	+	+	+	-	-	out	hold
+	-	hold	a promise	-	+	+	-	-	out	keep secret
+	+	iron	the sheets	-	+	+	+	-	out	make smooth with iron
+	+	jerk	a thought	-	+	-	+	-	out	say quickly
+	+	knock	Katie	+	-	-	+	-	out	exhaust
+	+	knock	Katie	+	-	+	+	-	out	make unconscious by hitting
+	+	knock	a poem	+	-	-	-	-	out	produce quickly
+	-	last	the concert	-	+	-	-	-	out	endure

At times the particle is necessary for the neutral construction to occur, while in other cases it is not, while still in others the verb does not exhibit the neutral construction at all. The variety of pluses and minuses shows that neither the compositional nature nor the semantic category of the *PV* expression can be used to predict its syntactic behavior.

3. Complex Constructions

The majority of the data consisting of 361 *PV out* entries are analyzed in the *Complex PV out* table. Complex *PV out* constructions are those which the particle can be analyzed as a locative or prepositional expression that introduces a second complement, N_2 , generally by means of the prepositional phrase *out of*. When complex *PV out* appears in its simple form, $N_0 V N_1 out$, the N_2 complement seems to be an intrinsic property of the locative particle. For instance, the simple expression *The man scrubbed the gunk out* intrinsically entails that he scrubbed the gunk out of something, and thereby gives rise to the more complex expression *The man scrubbed the gunk out of the tub*. When the second complement, N_2 phrase, is an implicit part of the phrasal verb expression, the construction appears in its simple (continuous or discontinuous) form, $N_0 V out N_1 \leftrightarrow N_0 V N_1 out$, but when made explicit, it appears in the more complex structure, $N_0 V N_1 out of N_2$ appearing only in the discontinuous form. The following sections demonstrate the variety of complex structures transitive *PV out*'s exhibit.

3.1 Complex *PV out*: The nature and limits of the locative particle

Complex *PV out* introduce a longer (implicit or explicit) locative phrase into the construction. Machonis (2009) tests whether the particle can be analyzed as contributing a locative interpretation by replacing the particle with a full prepositional phrase, represented as *Prep N₂*, where *Prep* indicates an appropriate directional preposition. A positive value under the column labeled $N_0 V N_1 Prep N_2$ indicates that the particle may be derived from a locative prepositional phrase, such as (21).

(21) $N_0 V N_1 Prep N_2 \rightarrow N_0 V N_1 out$

- | | | |
|---|---|---|
| a. Max <i>squirts</i> water <i>through the hole</i> | → | Max <i>squirts</i> water <i>out</i> |
| b. The kids <i>tossed</i> the ball <i>from the window</i> | → | The kids <i>tossed</i> the ball <i>out</i> |
| c. The girl was <i>dragging</i> the garbage <i>from the house</i> | → | The girl was <i>dragging</i> the garbage <i>out</i> |
| d. The clumsy boy <i>spilled</i> the water <i>from the bucket</i> | → | The clumsy boy <i>spilled</i> the water <i>out</i> |

These examples show that replacing the particle with a full PP entails that the particle is intrinsically locative. The lexicon-grammar tables demonstrate that the nature of the locative phrase is semantically and syntactically varied and complex. First of all, it is not always the case that locative *out* can be replaced by a full prepositional phrase.

(22) $N_0 V N_1 Prep N_2 \neq N_0 V N_1 out$

- a. *The manager punched the employee from work → The manager punched the employee out of work⁸

In example (22a) the locative particle cannot be replaced by a full PP; however, it still forms a locative expression. Such examples are indicated with a plus value under the column $N_0 V N_1 out of N_2$, but a minus under $N_0 V N_1 Prep N_2$ in the lexicon grammar table.

Secondly, only two types of locative constructions were accepted in the analysis of complex *PV out* phrases, i.e. directional and spatial expressions. Jackendoff (2002) defines directional particles as full prepositional phrases that can replace the particle (as illustrated in (21a-d)) and select a directional path as its complement. Ishikawa (1999)

defines spatial particles as those which can be replaced by a full PP indicating a spatial relation rather than a directional one, as in (23).

(23) $N_0 V N_1 \text{ Prep } N_2 \rightarrow N_0 V N_1 \text{ out}$

- a. The parent *blocked* sensitive material *from the internet* → The parent *blocked* the sensitive material *out*
- b. The gardener *bedded* the plants *around the garden* → The gardener *bedded* the plants *out*
- c. The team *beat* their opponents *from the competition* → The team *beat* their opponents *out*

Both directional and spatial locative phrases were accepted as comprising a complex *PV out* construction. In contrast, metaphorical particle expressions (Dirven 1997, Baldwin 2002) were excluded from the analysis and the phrasal verb was inputted into the simple *PV out* table to be interpreted as an aspectual modifier, as in (24).

(24) $N_0 V N_1 \text{ Prep } N_2 \rightarrow N_0 V N_1 \text{ out}$

- a. Jenny had to *blot* the entire experience *from her mind* → Jenny had to *blot* the experience *out*
- b. Ty *picked* a name *out of his head* → Ty *picked* a name *out*
- c. The students *wiped* the teacher *out of energy* → The students *wiped* the teacher *out*

Once again, there may be more than one entry in the lexicon for a phrasal verb. These separate entries serve to disambiguate lexically similar *PV*'s by inserting one in the complex *PV out* table for the literal expression *to pick a shirt out of the rack* and one in the simple *PV out* table for the less transparent interpretation *to pick a name out*.

The complex *PV out* lexicon-grammar charts so far describe a range of structures entailing a variety of relationships. First, the locative or spatio-directional particle *out* can be optionally deleted and the expression is analyzed as compositional, indicated with a plus under the column $N_0 V N_1$, while idiomatic *PV out* expressions have a negative value under $N_0 V N_1$.

(25)

- a. Max *squirts* the water ↔ Max *squirts* the water *out* (of his mouth) ‘squirt’
- b. *Max *casted* Katie ↔ Max *casted* Katie *out* (of the group) ‘exclude’

While example (25a) illustrates that the *PV* is fully compositional, example (25b) shows that although an idiomatic expression, the particle can still be analyzed as locative, i.e. *Max casted Katie out of the group*, showing that the construction is partially compositional. Furthermore, some of these partially compositional expressions can still have the particle replaced by a full PP, shown by a minus in the $N_0 V N_1$ column but a plus under $N_0 V N_1 \text{ Prep } N_2$, for instance:

(26) *Max *casted* Katie → Max *casted* Katie from the group ‘exclude’

However, other idiomatic expressions cannot, illustrated with a negative under both columns, $N_0 V N_1$ and $N_0 V N_1 \text{ Prep } N_2$, such as:

(27) *Max *left* Katie⁹ → *Max *left* Katie from the plan ‘exclude’

Examples (26) and (27) highlight how two semantically similar phrasal verbs can have a distinct syntactic behavior. The variety and unpredictability of these expressions is not based on its semantic categorization alone.

3.2 The prepositional phrase *out of* constructions

Transitive *PV out* expressions in the discontinuous form can also appear in a variety of longer structures when the second complement, N_2 , is an explicit part of the construction, representing prepositional phrasal verb expressions. The most common complex *PV out* expression, comprising 85% of the data, introduces the second complement as an *out of N_2* phrase, represented with a plus in the $N_0 V N_1 out\ of\ N_2$ column.

(28) $N_0 V N_1 out\ of\ N_2$

- | | | |
|---|---|---|
| a. The woman <i>whipped out</i> the bill | ↔ The woman <i>whipped</i> the bill <i>out</i> | → The woman <i>whipped</i> the bill <i>out of her bag</i> |
| b. Manny <i>washed out</i> the stain | ↔ Manny <i>washed</i> the stain <i>out</i> | → Manny <i>washed</i> the stain <i>out of the shirt</i> |
| c. Lily <i>picked out</i> a dress | ↔ Lily <i>picked</i> a dress <i>out</i> | → Lily <i>picked</i> a dress <i>out of the rack</i> |
| d. The teacher <i>flunked out</i> the boy | ↔ The teacher <i>flunked</i> the boy <i>out</i> | → The teacher <i>flunked</i> the boy <i>out of school</i> |

Likewise, there will be exceptions to the *out of N_2* phrase indicating that this is not necessarily a property of all locative *PV out* expressions.

(29) $*N_0 V N_1 out\ of\ N_2$

- | | | |
|--|------------------------------------|--|
| a. Martha <i>gave joy to the students</i> | → Martha <i>gave joy out</i> | → *Martha <i>gave joy out of the students</i> |
| b. Katie <i>put the flowers on the table</i> | → Katie <i>put the flowers out</i> | → *Katie <i>put the flowers out of the table</i> |
| c. We <i>bedded the plants around the garden</i> | → We <i>bedded the plants out</i> | → *We <i>bedded the plants out of the garden</i> |

Unacceptable $*N_0 V N_1 out\ of\ N_2$ comprise 55 of the 361 entries examined. The tables show that in this form the longer phrase is associated with prepositions, such as *to N_2* , *around N_2* , and *on N_2* , in contrast to the *out of N_2* constructions which are closely associated with a *from N_2* prepositional phrase (compare columns $N_0 V N_1 out\ of\ N_2$ with $N_0 V N_1 Prep\ N_2$ in Table 2). In addition, most of these verbs are dative, as in (29a-b), and also include *hand out*, *deal out*, and *email out*, all of which reject the *out of N_2* construction.

3.3 The complex *out N_2* construction

Another longer construction appears with the N_2 itself surfacing directly following the particle, represented as $N_0 V N_1 out\ N_2$. As observed in the lexicon grammar tables, the *out N_2* phrase essentially indicates a literal spatio-directional phrase, as in the following examples:

(30) $N_0 V N_1 out\ N_2$

- | | | |
|---|---|--|
| a. Max <i>squirted out</i> the water | ↔ Max <i>squirted</i> the water <i>out</i> | → Max <i>squirted</i> the water <i>out the hole</i> |
| b. The kid is <i>tossing out</i> the ball | ↔ The kid is <i>tossing</i> the ball <i>out</i> | → The kid is <i>tossing</i> the ball <i>out the window</i> |
| c. The student <i>wheeled out</i> the keg | ↔ The student <i>wheeled</i> the keg <i>out</i> | → The student <i>wheeled</i> the keg <i>out the door</i> |
| d. The house <i>belched out</i> smoke | ↔ The house <i>belched</i> smoke <i>out</i> | → The house <i>belched</i> smoke <i>out the chimney</i> |

This structure is not very common appearing in 43 of 361 or 12% of the complex phrases and seems to be dependent on the type of N_2 complement that follows the particle. For instance, while examples (30a-d) above are acceptable constructions, changing the N_2 in these examples can yield unacceptable expressions, such as (31).

- (31) * N_0 V N_1 out N_2
- a. *Max *squirted* water out the tube
 - b. *The kid is *tossing* the ball out the court
 - c. *The student *wheeled* the keg out the tub
 - d. *The house *belched* smoke out the doors

The acceptability of the N_0 V N_1 out N_2 construction seems to not only be dependent on the meaning of the PV but also on the nature of the N_2 complement. If a construction was possible with any N_2 , we marked it plus, however syntactic variation resulting from differing N_2 's is a topic for further research.

3.4 The complex out Prep N_2 construction

The second most common locative structure, besides the *out of* N_2 phrase, introduces the second complement N_2 conjoined with *out* plus a prepositional phrase commonly observed as *from* N_2 but also includes *to* N_2 , *at* N_2 , *for* N_2 , *on* N_2 , and *through* N_2 . The *Prep* N_2 phrase usually introduces a longer locative or spatio-directional phrase; the non-locative or non-spatio-directional type was disregarded. This complex construction is represented with a plus under the column labeled N_0 V N_1 out *Prep* N_2 where *Prep* indicates a spatial or directional PP.

- (32) N_0 V N_1 out Prep N_2
- a. The students *wheeled* the keg out through the door
 - b. Manny *washed* the stain out from the shirt
 - c. Police officers *blocked* people out from the parade

There are exceptions to this construction as well. For example, some constructions do not sound so natural yielding unacceptable, or at least awkward, sentence forms as in examples (33).

- (33) * N_0 V N_1 out Prep N_2
- a. ?*Sasha *showed* her uncle out from the house
 - b. ?*Teens were *booming* music out from the window
 - c. *The detective *sniffed* the details out from the crime

Additionally, unlike the *out* N_2 and the *out of* N_2 construction in which the PV must appear in the discontinuous form in order to introduce the N_2 into the structure (i.e. **The kid tossed out the ball the window* and **The reporter yelled out his name of the car*), this is not the case with the *out Prep* N_2 phrase. The *out Prep* N_2 construction can appear in both the continuous and the discontinuous form.¹⁰

(34) **N_0 V out N_1 Prep N_2**

- a. The students *wheeled out* the keg *through the door*
- b. Manny *washed out* the stain *from the shirt*
- c. ?Police officers *blocked out* the people *from the parade*

The tables show expressions that reveal both acceptable and unacceptable N_0 V N_1 *out Prep* N_2 indicated by a plus or minus value under this column. Because of its close relationship to the *out of N_2 phrase*, this construction comprises 80% of the data. The column is challenging to fill out as differing opinions accept or reject some of these expressions.

Table 2 shows the various complex constructions discussed so far. The first two columns represent the potential human and non-human properties of the subject followed by the verb and an example of the N_1 also indicating the human/non-human dichotomy. After this, there is the particle *out* and an example of a possible preposition. The N_0 V N_1 *Prep* N_2 column indicates whether the particle can be replaced by a full PP. The next three columns show the various complex constructions, namely, the most common N_0 V N_1 *out of* N_2 phrase, the N_0 V N_1 *out Prep* N_2 phrase, and the less common N_0 V N_1 *out* N_2 phrase discussed above, followed by an example of the N_2 marked for the properties human and non-human.

Table 2

Detail of complex PV out chart

$N_0 =: N_{hum}$	$N_0 =: N_{-hum}$	Verb	Example of N_1	$N_1 =: N_{hum}$	$N_1 =: N_{-hum}$	Particle	Preposition	$N_0 V N_1$ Prep N_2	$N_0 V N_1$ out of N_2	$N_0 V N_1$ out N_2	$N_0 V N_1$ out Prep N_2	Example of N_2	$N_2 =: N_{hum}$	$N_2 =: N_{-hum}$	Synonym
+	-	hose	the rats	+	+	out	from	+	+	+	+	the house	-	+	get rid of with water
+	+	hollow	the wood	-	+	out	from	+	+	-	+	the log	-	+	hollow
+	+	hold	the paper	+	+	out	from	+	+	+	+	the window	-	+	hold
+	+	hew	branches	+	+	out	from	+	+	-	+	the tree	+	+	remove by sawing
+	+	help	Mary	+	-	out	from	+	+	-	+	a bad situation	-	+	help
+	-	heave	the sails	-	+	out	from	-	+	-	+	boom	-	+	Nautical: remove
+	-	have	a tooth	-	+	out	from	-	+	-	+	POSS mouth	-	+	remove
+	-	hash	the issue	-	+	out	from	+	+	-	-	the problem	-	+	discuss thoroughly
+	-	hang	the washing	-	+	out	from	+	+	-	-	the house	-	+	hang
+	-	hand	the papers	-	+	out	to	+	-	-	+	the class	-	+	distribute
+	+	grind	the rubber	-	+	out	from	+	+	-	+	the tires	-	+	extinguish by rubbing
+	+	gouge	the eyes	-	+	out	from	+	+	-	+	the sockets	+	+	remove by gouging
+	+	give	my number	-	+	out	to	+	-	-	+	the group	+	-	tell information
+	-	give	music	-	+	out	to	+	-	-	+	the public	+	-	distribute
+	+	get	the lipstick	+	+	out	from	+	+	-	+	the bag	-	+	take out
+	-	get	the prisoner	+	-	out	from	+	+	-	-	jail	-	+	take from
+	+	get	the dirt	-	+	out	from	-	+	+	+	the shirt	+	+	get rid of
+	+	get	the album	-	+	out	to	+	-	-	+	the public	+	+	produce to sell
+	-	gasp	a cry	-	+	out	from	+	+	+	+	the window	-	+	say by gasping
+	-	fork	the money	-	+	out	from	+	+	-	+	his pocket	+	+	give
+	-	fork	the money	-	+	out	to	+	-	-	+	Katie	+	+	give
+	+	force	the nail	+	+	out	through	+	+	+	+	the hole	+	+	get rid of by force
+	+	fly	Katie	+	+	out	from	+	+	-	+	the city	-	+	go by plane
+	+	fly	Katie	+	+	out	to	+	-	-	+	the city	-	+	go by plane
+	+	flush	the dirt	-	+	out	from	+	+	-	-	the sink	-	+	get rid of with water
+	+	flush	the terrorists	+	+	out	from	-	+	-	-	the country	+	+	force to leave
+	-	flunk	the boy	+	-	out	from	+	+	-	+	school	-	+	fail
+	+	flood	the rats	+	+	out	from	+	+	-	+	the house	-	+	get rid of by flooding

4. Complex Constructions: Other transformations

Along with transformations like the neutral construction or the causative alternation, which we already observed with the simple *PV out*, complex *PV out* expressions can also undergo a variety of transformations, such as N_2 promotion, reversed constructions and complex neutral structures. Section 4 is dedicated to the variety of transformations complex transitive *PV out* constructions exhibit in the sense of Harris (1956).

4.1 N_2 Promotion

Complex *PV out* structures at times appear in its simple form with the N_2 , the second complement, in the direct object N_1 position and the N_1 complement becomes implicit or omitted altogether yielding the relationship $N_0 V N_1 \text{ out of } N_2 \rightarrow N_0 V N_2 \text{ out}$, which we refer to as N_2 promotion. The new expression, which promotes the original N_2 into the N_1 position, appears to become a simple verb phrase indicated with a plus under the column $N_0 V N_2 \text{ out}$. In this form the new expression, derived from the longer prepositional phrase, is reanalyzed as an aspectual modifier appearing once again in both the continuous and discontinuous forms, like (35) and (36).

(35) $N_0 V N_1 \text{ out of } N_2 \rightarrow N_0 V N_2 \text{ out} \leftrightarrow N_0 V N_2 \text{ out}$

a. The man *scrubbed* the gunk *out of the tub* \rightarrow The man *scrubbed* the tub *out* \leftrightarrow The man *scrubbed out* the tub

This construction can also be derived from any one of the longer $N_0 V N_1 \text{ out of } N_2$, $N_0 V N_1 \text{ out } N_2$, or $N_0 V N_1 \text{ out Prep } N_2$ structures.

(36) $N_0 V N_2 \text{ out}$

- a. The girl *spilled* the water *out of the glass* \rightarrow The girl *spilled* the glass *out* \leftrightarrow The girl *spilled out* the glass
 b. Exterminators *smoke* rats *out the house* \rightarrow Exterminators *smoke* the house *out* \leftrightarrow Exterminators *smoke out* the house
 c. Manny *washed* stains *out from the shirt* \rightarrow Manny *washed* the shirt *out* \leftrightarrow Manny *washed out* the shirt

However, N_2 promotion is not a property of all complex phrasal verb expressions. Unacceptable expressions are marked by a minus value under the column $N_0 V N_2 \text{ out}$, for instance:

(37) $N_0 V N_1 \text{ out of } N_2 \rightarrow *N_0 V N_2 \text{ out}$

- a. His parents *left* Dustin *out of the plan* \rightarrow *His parents *left* the plan *out*
 b. The government *flushed* the terrorists *out of the country* \rightarrow *The government *flushed* the country *out*
 c. Denise *got* her girlfriend *out of jail* \rightarrow *Denise *got* jail *out*

A positive value under the $N_0 V N_2$ column denotes that the new structure is compositional, example (38a), while a negative shows that it is not, (38b).

(38) $N_0 V N_2 \text{ out} \leftrightarrow N_0 V N_2$

a. The girl *spilled* the water *out of the glass* \rightarrow The girl *spilled* the glass *out* \leftrightarrow The girl *spilled* the glass

b. The runner *wore* the rubber *out of his shoes* → The runner *wore out* the shoes ↔ *The runner *wore* the shoes

The promotion of the second complement to the N_1 position constitutes 116 of the 361 entries or 32% of the complex expressions. After this transformation, the number of the *purely* simple *PV out* expressions increases from 200 to 316 constructions representing 56% of the entire corpus.¹¹ The column labeled $N_0 V N_2$ *out* in the complex *PV out* table shows that the particle, which once stood for a complex phrase $N_0 V N_1$ *out of* N_2 , comprises part of a simple expression of the aspectual type in the form of $N_0 V N_2$ *out*. This column implies that 37% of purely simple *PV out* constructions entail some kind of intrinsically implicit N_1 phrase.

4.2 Reversed Constructions

The structure previously described as N_2 promotion at times can introduce the N_1 back into the expression in the position where the N_2 originated exhibiting a reversed order as in $N_0 V N_1$ *out of* N_2 → $N_0 V N_2$ *out of* N_1 . This N_1 and N_2 inversion, comprising 30 of the complex expressions, is also a characteristic of the other longer forms, i.e. the $N_0 V N_2$ *out* N_1 and $N_0 V N_2$ *out Prep* N_1 phrases described below.

Reversed constructions appear as inverted forms of the $N_0 V N_1$ *out of* N_2 phrase giving rise to the new expression $N_0 V N_2$ *out of* N_1 indicated by a positive value under the appropriate column, where the ↔ indicates a relationship between the two structures that is not necessarily synonymous, for example (39).

(39) $N_0 V N_1$ *out of* N_2 ↔ $N_0 V N_2$ *out of* N_1

- | | | |
|--|---|---|
| a. The workers <i>mined</i> the coal <i>out of the cave</i> | ↔ | The workers <i>mined</i> the cave <i>out of coal</i> |
| b. The company <i>farmed</i> oil <i>out of the land</i> | ↔ | The company <i>farmed</i> the land <i>out of oil</i> |
| c. The scientist <i>filtered</i> chemicals <i>out of the water</i> | ↔ | The scientist <i>filtered</i> the water <i>out of chemicals</i> |
| d. Max <i>squirted</i> the paste <i>out of the tube</i> | ↔ | Max <i>squirted</i> the tube <i>out of paste</i> |

As the lexicon-grammar tables illustrate, not all of the N_2 promotions can be reanalyzed as reversed constructions, indicated with a negative value in $N_0 V N_2$ *out of* N_1 , as in (40).

(40) $N_0 V N_1$ *out of* N_2 ↔ * $N_0 V N_2$ *out of* N_1

- | | | |
|---|---|---|
| a. The terminator <i>hosed</i> the rats <i>out of the house</i> | ↔ | *The terminator <i>hosed</i> the house <i>out of the rats</i> |
| b. The cleaner <i>shook</i> the dirt <i>out of the rug</i> | ↔ | *The cleaner <i>shook</i> the rug <i>out of dirt</i> |
| c. Alex <i>sanded</i> the stains <i>out of the wood</i> | ↔ | *Alex <i>sanded</i> the wood <i>out of stains</i> |
| d. The therapist <i>rubbed</i> the pain <i>out of my shoulder</i> | ↔ | *The therapist <i>rubbed</i> my shoulder <i>out of pain</i> |

4.3 Reversed constructions derived from dative verbs

Another type of reversed construction is derived from the $N_0 V N_1$ *Prep* N_2 and $N_0 V N_1$ *out Prep* N_2 forms appearing as $N_0 V N_2$ *out* N_1 , in which the *of* and *Prep* is omitted in the inversion. This new structure is derived from dative verbs as it is the object of the PP that is moving into the N_1 position. This structure is illustrated in the following examples indicated with a plus sign under the column $N_0 V N_2$ *out* N_1 in the lexicon-grammar table¹²:

(41) $N_0 V N_2 \text{ out } N_1$

- | | | |
|---|---|---|
| a. Ty <i>dealt</i> the cards <i>to the players</i> | ↔ | Ty <i>dealt</i> the players <i>out</i> the cards |
| b. The teacher <i>handed</i> some papers <i>out</i> to the students | ↔ | The teacher <i>handed</i> the students <i>out</i> some papers |
| c. Evan <i>gave</i> his number <i>out</i> to some girls | ↔ | Evan <i>gave</i> some girls <i>out</i> his number |
| d. The employee <i>rents</i> movies <i>out</i> to customers | ↔ | The employee <i>rents</i> customers <i>out</i> movies |

These examples show that dative verbs, like *make*¹³, *send*, *print*, *pour*, *hand*, *pass*, *give*, and *rent* commonly followed by a **Prep N₂** phrase, undergo the reversed order. Prior to the inversion the expression can appear in both continuous and discontinuous forms (The teacher *handed* some papers *out* to the students ↔ The teacher *handed out* some papers to the students), but can no longer do so after the inversion (*The teacher *handed out* the students some papers). Regular transitive verbs do not accept this particular inverted construction, marked with a minus under $N_0 V N_2 \text{ out } N_1$.

(42) $N_0 V N_1 \text{ out } N_2 \leftrightarrow *N_0 V N_2 \text{ out } N_1$

- | | | |
|--|---|---|
| a. The pool guy <i>pumped</i> the water <i>out</i> of the pool | ↔ | *The pool guy <i>pumped</i> the pool <i>out</i> water |
| b. The massage therapist <i>rubbed</i> the pain <i>out</i> of my leg | ↔ | *The massage therapist <i>rubbed</i> my leg <i>out</i> pain |
| c. The exterminator <i>hosed</i> the rats <i>out</i> of the house | ↔ | *The exterminator <i>hosed</i> the house <i>out</i> rats |

In *Table 3* the columns following the preposition illustrate the acceptable $N_0 V N_1 \text{ out of } N_2$, $N_0 V N_1 \text{ out } N_2$ and $N_0 V N_1 \text{ out Prep } N_2$ followed by an example of the N_2 marked for human and nonhuman features. The $N_0 V N_2 \text{ out}$ column, discussed in **4.1**, shows the constructions which can promote the N_2 to the N_1 position reappearing in its simple form, and the $N_0 V N_2$ column reveals the compositionality of the new expression. Following this column are the reversed structures, $N_0 V N_2 \text{ out of } N_1$, $N_0 V N_2 \text{ out } N_1$ and $N_0 V N_2 \text{ out Prep } N_1$. Ultimately all expressions have the property of appearing in the simple continuous and discontinuous forms $N_0 V N_1 \text{ out} \leftrightarrow N_0 V \text{ out } N_1$ by deleting the N_2 PP following the verb.

Table 3

Sample of Complex *PV out* matrix highlighting the reversed constructions

$N_0 =: N_{hum}$	$N_0 =: N_{-hum}$	Verb	Example of N_1	$N_1 =: N_{hum}$	$N_1 =: N_{-hum}$	Particle	Preposition	$N_0 V N_1$ Prep N_2	$N_0 V N_1$ out of N_2	$N_0 V N_1$ out N_2	$N_0 V N_1$ out Prep N_2	Example of N_2	$N_2 =: N_{hum}$	$N_2 =: N_{-hum}$	$N_0 V N_2$ out	$N_0 V N_2$	$N_0 V N_2$ out of N_1	$N_0 V N_2$ out Prep N_1	$N_0 V N_2$ out N_1	Synonym
+	+	email	the test	-	+	out	to	+	-	-	+	the students	+	-	-	+	-	-	+	email
+	-	empty	the dishes	-	+	out	from	+	+	-	+	the dishwasher	-	+	+	+	-	-	-	empty
+	+	even	the concrete	-	+	out	on	+	-	-	+	the street	-	+	+	+	-	-	-	make even
+	+	farm	the oil	-	+	out	from	+	+	-	-	the land	-	+	+	+	+	-	-	exhaust by drilling
+	+	filter	the chemicals	+	+	out	from	+	+	-	+	the water	-	+	+	+	+	+	-	get rid of by filtering
+	+	flatten	the pavement	+	+	out	on	+	-	-	+	the street	+	+	+	+	-	-	-	make flat
+	+	flesh	the characters	+	+	out	from	+	+	-	+	the story	-	+	+	+	-	-	-	give reality to
+	+	flood	the rats	+	+	out	from	+	+	-	+	the house	-	+	+	+	-	-	-	get rid of by flooding
+	+	flush	the dirt	-	+	out	from	+	+	-	-	the sink	-	+	+	+	-	-	-	get rid of with water
+	-	fork	the money	-	+	out	to	+	-	-	+	Katie	+	+	-	-	-	-	-	give
+	+	give	my number	-	+	out	to	+	-	-	+	the group	+	+	-	-	-	-	+	distribute
+	+	grind	the rubber	-	+	out	from	+	+	-	+	the tires	-	+	+	-	-	-	-	exhaust by rubbing
+	-	hand	the papers	-	+	out	to	+	-	-	+	the class	-	+	-	-	-	-	+	distribute

4.4 The Causative Alternation and Neutral Structures in Complex Constructions

Similar to section 2.2, which illustrated the causative alternation or the neutral construction in simple *PV* constructions, i.e. $N_0 V N_1 out \rightarrow N_1 V out$, complex phrasal verb expressions can also undergo this transformation followed by a variety of acceptable and unacceptable longer locative phrases. The most common prepositional phrasal verb expression which undergoes the causative alternation is the $N_1 V out of N_2$ phrase, as in (43).

(43) $N_0 V N_1 out of N_2 \rightarrow N_1 V out of N_2$

- a. The girl *spilled* the water *out* of the glass \rightarrow The water *spilled out* of the glass
- b. Manny *washed* the stain *out* of the shirt \rightarrow The stain *washed out* of the shirt
- c. The carpenter *screws* the nail *out* of the wood \rightarrow The nail *screws out* of the wood

The construction is also prone to the longer complex version:

- (44) **N₁ V out from N₂**
 a. The water *spilled out* from the glass

Moreover, this complex neutral construction can yield a new expression of the form *N₁ V out N₂*.

- (45) **N₀ V N₁ out of N₂ → N₁ V out N₂**
 a. The water *spilled out* the glass

However, in these cases it cannot appear in both the continuous and discontinuous order.

- (46)
 a. *The water *spilled* the glass *out*¹⁴

The column labeled **N₁ V Prep N₂** shows whether the particle can be replaced by a PP in the neutral form.

- (47) **N₁ V Prep N₂ → N₁ V out N₂**
 a. The water *spilled out* the glass → The water *spilled* from the glass

The particle cannot be substituted by a PP in all cases.

- (48) **N₁ V out of N₂ → *N₁ V Prep N₂**
 a. The umpire *struck* the player *out* of the game
 b. The player *struck out* of the game → *The player *struck* from the game

Altogether we get the following six possible combinations of neutral structures from simple to complex expressions, as in (49) and (50).

- (49) The scientist *squirted* chemicals *out* the hole →
- | | |
|--|---|
| a. N₁ V out | The chemicals <i>squirted out</i> |
| b. N₁ V out of N₂ | The chemicals <i>squirted out</i> of the hole |
| c. N₁ V out Prep N₂ | The chemicals <i>squirted out</i> from the hole |
| d. N₁ V out N₂ | The chemicals <i>squirted out</i> the hole |
| e. N₁ V Prep N₂ | The chemicals <i>squirted</i> from the hole |
- (50) The band was *booming* the music *out* the window →
- | | |
|--|---|
| a. N₁ V out | Music was <i>booming out</i> |
| b. N₁ V out of N₂ | Music was <i>booming out</i> of the window |
| c. N₁ V out Prep N₂ | Music was <i>booming out</i> through the window |
| d. N₁ V out N₂ | Music was <i>booming out</i> the window |
| e. N₁ V Prep N₂ | Music was <i>booming</i> through the window |

While some expressions exhibit each one of these longer structures as in (49) and (50), not all the phrasal verb expressions that undergo neutrality display each combination, as in examples (51) – (60).

- (51) The carpenter *screws* the nail *out* of the wood →
- a. **N₁ V out** The nail *screws out*
 - b. **N₁ V out of N₂** The nail *screws out* of the wood
 - c. ***N₁ V out Prep N₂** *The nail *screws out* from the wood
 - d. ***N₁ V out N₂** *The nail *screws out* the wood¹⁵
 - e. ***N₁ V Prep N₂** *The nail *screws* from the wood

Employing Levin's (1993) verb classes, some expressions seem to reveal similar combinatorial properties with some slight variations based on general semantic classes, as shown by the following *verbs of sound emission*.

- (52) *Verbs of sound emission*
- a. The musicians were *blasting / booming / blaring* music out of the house
 - b. Music was *blasting / booming / blaring* out
 - c. Music was *blasting / booming / blaring* out of the house
 - d. Music was *?blasting / ?booming / ?blaring* out the house
 - e. Music was *blasting / booming / blaring* from the house

These examples, however, comprise a minority of the verbs within a particular verb class. For instance, of the 15 *verbs of sound emission*, only three, as illustrated in (52), exhibit syntactically similar properties in the neutral or causative alternation. The following examples show syntactic behavior can vary even within the same general semantic class:

- (53)
- a. The musicians *banged / clapped / thumped / tapped* music out
 - b. The musicians *?banged / *clapped / *thumped / *tapped* music out of the house
 - c. Music **banged / *clapped / *thumped / *tapped* out
 - d. Music **banged / *clapped / *thumped / *tapped* out of the house
 - e. Music **banged / *clapped / *thumped / *tapped* out the house
 - f. Music **banged / *clapped / *thumped / *tapped* from the house

Other examples show that variation can be attributed to the arguments of the verb, governing the possible syntactic combinations the expressions reveal as in the unacceptability of **The musician roared the music out*, in contrast to *The musician roared the announcement out*.

Similar behavior is seen in Levin's 'verbs of removing' class¹⁶:

(54) *Verbs of removing*

- | | | |
|----|---|--|
| a. | N₀ V N₁ out of N₂ | Manny <i>cleaned / rinsed / rubbed / washed</i> stains out of the shirt |
| b. | N₁ V out | The stain <i>*cleaned / rinsed / rubbed / washed</i> out |
| c. | N₁ V out of N₂ | The stain <i>*cleaned / rinsed / rubbed / washed</i> out of the shirt |
| d. | N₁ V out Prep N₂ | The stain <i>*cleaned / ?*rinsed / *rubbed / washed</i> out from the shirt |
| e. | N₁ V out N₂ | The stain <i>*cleaned / ?*rinsed / ?*rubbed / *washed</i> out the shirt |
| f. | N₁ V Prep N₂ | The stain <i>*cleaned / *rinsed / *rubbed / *washed</i> from the shirt |

Likewise, the following 'verbs of substance emission' show a high degree of variability when the arguments are kept constant.

(55) *Verbs of substance emission*

- | | | |
|----|---|---|
| a. | N₀ V N₁ out of N₂ | Max <i>spewed / *spilled / spit / spurted / ?squeeze / squirted</i> water out of his mouth |
| b. | N₁ V out | Water <i>spewed / spilled / *spit / spurted / *squeezed / squirted</i> out |
| c. | N₁ V out of N₂ | Water <i>spewed / *spilled / *spit / spurted / *squeezed / squirted</i> out of his mouth |
| d. | N₁ V out Prep N₂ | Water <i>*spewed / *spilled / *spit / *spurted / *squeezed / *squirted</i> out from his mouth |
| e. | N₁ V out N₂ | Water <i>*spewed / *spilled / *spit / *spurted / *squeezed / *squirted</i> out his mouth |
| f. | N₁ V Prep N₂ | Water <i>*spewed / *spilled / *spit / ?spurted / *squeezed / *squirted</i> from his mouth |

Changing the arguments can demonstrate a higher degree of syntactic similarity as in the following examples where the neutral construction in its prepositional phrasal form are acceptable, as opposed to (55), solely by modifying the arguments of the prepositional phrase.

(56)

- | | | | |
|----|-------------------------------------|---|-----------------------------------|
| a. | Water spewed out of his mouth | ↔ | Water spewed out his mouth |
| b. | Water spilled out of the bucket | ↔ | Water spilled out the bucket |
| c. | Water spits out of the sprinklers | ↔ | *Water spits out the sprinklers |
| d. | Water spurted out of the sprinklers | ↔ | *Water spurted out the sprinklers |
| e. | Water squeezes out of the sponge | ↔ | *Water squeezes out the sponge |
| f. | Water squirted out of the tube | ↔ | Water squirted out the tube |

Other examples, though not synonymous, show that the same *PV out* demonstrate similar syntactic formations with varying arguments, one giving rise to the literal interpretation and the other the more idiomatic one, as exemplified with the *PV roll out*.

(57)

- | | | | |
|----|---|----|--|
| a. | Max rolled the chair out of the house ¹⁷ | a. | The company rolled the products out of the factory |
| b. | The chair rolled out | b. | The products rolled out |
| c. | The chair rolled out of the house | c. | The products rolled out of the factory |
| d. | ?The chair rolled out the house | d. | ?The products rolled out the factory |
| e. | *The chair rolled from the house | e. | *The products rolled from the factory |

But changing the phrasal verb yet not the meaning or the arguments can yield radically different acceptable constructions, as seen by comparing the literal PV *roll out the chair* with the semantically similar expression *wheel out the chair*.

(58)

- a. Max wheeled the chair out of the house
- b. *The chair wheeled out
- c. *The chair wheeled out of the house
- d. *The chair wheeled out the house
- e. *The chair wheeled from the house

The direct object of the verb can be responsible for the possible combinatorial properties of each expression, like (59).

(59)

- a. Max printed his name out (on the paper) → *His name printed out (on the paper) *write in print*
- b. Max printed the papers out (of the computer) → The papers printed out (of the computer) *print from computer*

In other expressions it is the arguments of the prepositional phrase that serve to disambiguate expressions and govern the acceptability of possible transformations. In these examples unless the prepositional phrase is made explicit, disambiguation is purely contextual, as in (60).

(60)

- a. The pitcher struck Max out of the list → *Max struck out of the list *erase*
- b. The pitcher struck Max out of the game → Max struck out of the game *strike out in baseball*

In sum, examples (52)–(53) demonstrate how morpho-syntactic similarity can be seen in general semantic categories illustrated with the *verbs of sound emission*. However, these examples show that only a few *sound emission* verbs display similar combinatorial features. Other broad semantic classes demonstrated more varied structural combinations as in (54)–(55), but by changing the argument more suitable to the expression reveals a higher degree of combinatorial similarities, as in (56)–(57). This information is unpredictable based on general semantic classes, (49)–(56), nor the meaning of the PV as demonstrated by (57)–(58). Many of these expressions can be disambiguated by distinguishing between the purely simple form and the (implicit or explicit) prepositional phrasal form, (57), while others can only be disambiguated by the nature of its prepositional complement or context (60).

4.5 Reversed-neutral Constructions

In addition to the complex neutral structures, in some cases the second complement, N_2 , may even rise to the subject position of the sentence, exhibiting structures similar to Salkoff's (1983) 'swarm alternation' in what we refer to as the reversed-neutral construction. In other words, the original N_2 complement appears in the N_0 subject position indicated with a plus under N_2 *V out* N_1 . This new expression can then once again appear in both the continuous and discontinuous order.

(61) $N_0 V N_1 \text{ out of } N_2 \rightarrow N_2 V \text{ out } N_1 \leftrightarrow N_2 V N_1 \text{ out}$

- | | | | | |
|---|---|---------------------------------------|---|--|
| a. The kids <i>squirted</i> water <i>out</i> of the gun | → | The gun <i>squirted out</i> water | ↔ | The gun <i>squirted</i> water <i>out</i> |
| b. Max <i>prints</i> papers <i>out</i> of the computer | → | The computer <i>prints out</i> papers | ↔ | The computer <i>prints</i> papers <i>out</i> |
| c. The couple <i>rents out</i> movies from the store | → | The store <i>rents out</i> movies | ↔ | The store <i>rents</i> movies <i>out</i> |
| d. The business <i>churns</i> clothes <i>out</i> of the factory | → | The factory <i>churns out</i> clothes | ↔ | The factory <i>churns</i> clothes <i>out</i> |
| e. The government <i>pumps</i> money <i>out</i> of banks | → | Banks <i>pump out</i> money | ↔ | Banks <i>pump</i> money <i>out</i> |

In few cases reversed-neutral structures may even appear as longer *complex* constructions in which the N_1 appears as part of a longer locative phrase, as in (62).

(62) $N_2 V \text{ out of } N_1$

- a. The store rents out of movies
- b. The streets cleared out of people¹⁸
- c. ?The water filters out of chemicals
- d. ?The gun squirted out of water
- e. ?The tube squeezes out of jelly

There can also be a significant change in meaning between the constructions, as ‘The store rents movies out’ implies that there are movies available for renting, whereas ‘The store rents out of movies’ implies that there are none left.

Table 4 illustrates some of the *PV out* expressions that exhibit the complex neutral and reversed-neutral structures. Following the example of an N_2 phrase, we see the most common complex neutral constructions of the $N_1 V \text{ out of } N_2$ form, and then the slightly less common $N_1 V \text{ out Prep } N_2$. The next structure is the less complex $N_1 V \text{ out } N_2$, followed by $N_1 V \text{ Prep } N_2$ which shows whether the particle can be replaced by a full PP in the neutral order. Finally the columns $N_2 V \text{ out } N_1$ and $N_2 V \text{ out of } N_1$ illustrate the variety of reversed-neutral constructions.

Table 4

Sample matrix of complex *PV out* highlighting neutral and semi-neutral constructions

N_0 :: Nhum	N_0 :: N-hum	Verb	Example of N_1	N_1 :: Nhum	N_1 :: N-hum	N_1 V out	Particle	Preposition	Example of N_2	N_2 :: Nhum	N_2 :: N-hum	N_1 V out of N_2	N_1 V out Prep N_2	N_1 V out N_2	N_1 V Prep N_2	N_2 V out N_1	N_2 V out of N_1	Synonym
+	-	bark	commands	-	+	+	out	from	the speakers	-	+	+	+	+	+	+	-	shout
+	+	belch	smoke	-	+	+	out	from	the chimney	-	+	+	+	+	+	+	-	belch
+	+	black	the memories	+	+	-	out	from	POSS-0 mind	-	+	-	-	-	-	+	-	make unconscious
+	+	block	sensitive material	-	+	-	out	from	the internet	-	+	-	-	-	-	-	-	stop broadcast
+	+	blot	the memories	+	+	-	out	from	POSS-0 mind	-	+	-	-	-	-	+	-	obliterate
+	+	blow	the glass	+	+	+	out	from	the window	-	+	+	+	-	-	-	-	destroy
+	+	boom	the music	-	+	+	out	from	the house	-	+	+	+	+	+	+	-	play loudly
+	+	bring	the personality	+	-	-	out	from	Max	+	-	-	-	-	-	+	-	expose
+	+	bring	the facts	-	+	-	out	from	the discussion	-	+	-	-	-	-	+	-	reveal
+	-	check	the books	-	+	-	out	from	the library	-	+	-	-	-	-	+	-	borrow or rent
+	+	churn	the clothing	-	+	+	out	from	the factory	-	+	+	+	-	+	+	-	produce to sell
+	+	close	the account	-	+	-	out	from	the bank	+	+	-	-	-	-	+	-	end
+	-	count	Katie	+	+	-	out	from	the plan	-	+	-	-	-	-	+	-	exclude
+	-	cut	the baby	-	+	-	out	from	the plan	-	+	-	-	-	-	+	-	exclude
+	-	dish	the truth	-	+	-	out	from	Katie	+	+	-	-	-	-	+	-	reveal
+	+	drain	the gunk	+	+	+	out	from	the sink	+	+	+	+	-	+	+	-	drain
+	+	factor	Katie	+	+	-	out	from	the plan	-	+	+	-	-	-	+	-	exclude
+	-	flash	anger	-	+	+	out	from	POSS-0 eyes	-	+	+	+	+	+	+	-	reveal
+	-	rent	the movies	-	+	+	out	from	the store	-	+	+	-	-	-	+	+	rent
+	+	squeeze	water	-	+	+	out	from	the tube	-	+	+	+	-	-	+	+	extract by squeezing
+	+	squirt	water	-	+	+	out	from	the tube	-	+	+	+	+	+	+	+	squirt

5. Conclusions

Table 5 illustrates the complete set of structural combinations of complex *PV out* analyzed in this article.

Table 5

Sample matrix of complex transitive phrasal verbs with the particle *out*

N_0 :: Nhum	N_0 :: N-hum	Verb	Example of N_1	N_1 :: Nhum	N_1 :: N-hum	N_0 V out	N_0 V N_1	N_1 V out	N_1 V	Particle	Preposition	N_0 V N_1 Prep N_2	N_0 V N_1 out of N_2	N_0 V N_1 out N_2	N_0 V N_1 out Prep N_2	Example of N_2	N_2 :: Nhum	N_2 :: N-hum	N_0 V N_2 out	N_0 V N_2	N_0 V N_2 out of N_1	N_0 V N_2 out Prep N_1	N_0 V N_2 out N_1	N_1 V out of N_2	N_1 V out Prep N_2	N_1 V out N_2	N_1 V Prep N_2	N_2 V out N_1	N_2 V out of N_1
+	+	factor	Katie	+	+	-	-	-	-	out	from	-	+	-	+	the plan	-	+	-	-	-	-	-	+	-	-	-	-	-
+	-	fan	the cards	-	+	-	-	-	-	out	on	+	-	-	+	the table	-	+	-	-	-	-	-	-	-	-	-	-	-
+	+	farm	the oil	-	+	-	-	-	-	out	from	+	+	-	+	the land	-	+	+	-	+	+	-	-	-	-	-	-	-
+	+	farm	the vegetables	-	+	-	+	-	-	out	from	+	+	-	-	the land	-	+	+	+	+	-	-	-	-	-	-	-	-
+	-	farm	the workers	+	-	-	-	-	-	out	to	+	-	-	+	Canada	-	+	-	-	-	-	-	-	-	-	-	-	-
+	-	farm	the duties	+	+	-	-	-	-	out	to	+	-	-	+	the workers	+	-	-	-	-	-	-	-	-	-	-	-	-
+	+	ferret	the details	+	+	-	-	-	-	out	from	+	+	-	+	the clerk	-	+	-	-	-	-	-	-	-	-	-	-	-
+	+	ferret	the rabbits	+	+	-	-	-	-	out	from	+	+	-	+	the burrows	-	+	-	-	-	-	-	-	-	-	-	-	-
+	+	filter	chemicals	+	+	-	+	+	+	out	from	+	+	-	+	the water	-	+	+	+	+	+	-	+	+	-	-	-	+
+	+	fish	the shells	+	+	-	+	-	-	out	from	+	+	-	+	the tank	+	+	-	-	-	-	-	-	-	-	-	-	-
+	-	flash	anger	-	+	-	-	+	+	out	from	+	+	-	+	POSS-0 eyes	-	+	-	-	-	-	-	+	+	+	+	+	-
+	+	flatten	the pavement	+	+	-	+	+	+	out	on	+	-	-	+	the street	+	+	+	+	-	-	-	-	+	-	+	-	-
+	+	flesh	characters	+	+	-	+	+	-	out	from	+	+	-	+	the story	-	+	+	+	-	-	-	+	-	-	-	+	-
+	+	flood	the rats	+	+	-	+	+	-	out	from	+	+	-	+	the house	-	+	+	+	-	-	-	+	+	+	-	-	+
+	-	flunk	the boy	+	-	-	+	+	+	out	from	+	+	-	+	school	-	+	-	-	-	-	-	+	+	-	+	-	-
+	+	flush	the dirt	-	+	-	+	+	-	out	from	+	+	-	-	the sink	-	+	+	+	-	-	-	+	-	+	-	-	-
+	+	flush	the terrorists	+	+	-	-	-	-	out	from	-	+	-	-	the country	+	+	-	-	+	-	-	-	-	-	-	-	-
+	+	fly	Katie	+	+	-	+	+	+	out	from	+	+	-	+	the city	-	+	-	-	-	-	-	+	+	-	+	-	-
+	+	fly	Katie	+	+	-	+	+	+	out	to	+	-	-	+	the city	-	+	-	-	-	-	-	-	+	-	+	-	-

As we can see, each phrasal verb expression exhibits a range of various properties. While some properties can be attributed to verb class, verb complements, stress and intonation, and pragmatics, our lexicon-grammar analysis demonstrates that this information is highly lexical, in that unique combinations of pluses or minuses in the matrix apply to individual verbs. Although some of these judgments might vary from dialect to dialect, Table 6 demonstrates the relative frequency of the various structures studied in this article.

Table 6

Relative frequency for structures of transitive phrasal verbs with the particle *out*

Simple PV out 36%			Complex PV out 64%												
Simple PV out Compositional	Simple PV out Non-compositional	Simple PV out Neutral	Complex PV out Compositional	Complex PV out Non-compositional	N ₀ V N ₁ Prep N ₂	N ₀ V N ₁ out of N ₂	N ₀ V N ₁ out Prep N ₂	N ₀ V N ₁ out N ₂	N ₂ Promotion	Reversed Constructions	Reversed Dative	Neutral Constructions	C complex Neutral N ₁ V out of N ₂	Complex Neutral N ₁ V out N ₂	Reversed-neutral
46%	54%	43%	57%	43%	73%	80%	84%	12%	36%	6%	3%	30%	25%	11%	13%

Transitive *PV out* expressions can exhibit a combination of up to 25 morpho-syntactic features. At present, syntactic theories do not take into account the range of variability that lexicon-grammar demonstrates, resulting in many competing analyses (Jackendoff 1997, Hoekstra 1988, Olsen 2000, Dehe 2002) on the governing principles of *PV* expressions. A lexicon-grammar approach raises some imperative questions about the underlying principles that govern verb phrases, while providing a thorough depiction of the data along with a systematic analysis of the possible and impossible structural and semantic features. This syntactic description can thereby provide competing theories with an empirical framework to verify hypotheses and account for transformations that phrasal verbs undergo. In addition to the present syntactic investigation, we have been classifying the semantic properties of *PV out*. This new data so far shows that phrasal verbs with *out* can entail a continuum of 10 aspectual features, ranging from inchoative to exhaustive, and varying degrees of intensification. In the future, the data of these two studies would be combined thus creating a principled mapping between the syntax and semantics and thereby contribute to the development of a restrictive theory of grammar.

¹ In the case of a pronominal direct object, the particle must appear in the discontinuous order.

N₀ V ProN₁ out ↔ ***N₀ V out ProN₁**: Clowns totally *freak him out* ↔ *Clowns totally *freak out him*

² The corpora of *PV out* entries is an extension of a previously constructed table by Machonis (2009b.) while the remainder were collected from the *Longman Phrasal Verb Dictionary*, online dictionary websites, such as *dictionary.com* and *urbandictionary.com*, and in books and linguistic articles cited. Also, *PV* constructions are highly productive since native speakers constantly create new expressions; these expressions would need to be added to the corpora as they appear.

³ Both literal and metaphorical interpretations were considered as compositional as long as the single verb expression was semantically acceptable and relatively synonymous with the phrasal verb expression.

⁴ All *PVs* in the data can appear in the continuous and discontinuous order, thereby excluding idiomatic expressions of the ‘frozen’ or ‘fixed’ type, like examples in Jackendoff (2002) *Harold sang his heart out*, in which particle movement is not possible: **Harold sang out his heart*.

⁵ For each sense of the *PV out* expression, a separate entry was added to the lexicon-grammar table. In this case, one for the literal meaning of *The gangster took the boy out* meaning ‘to take’ and one for the idiomatic meaning ‘to kill’.

⁶ The example *The athlete wiped out* is a well-formed sentence but is an intransitive PV and not synonymous with *The trainer wiped the athlete out* meaning ‘to exhaust’, hence the reason for its unacceptability in this example.

⁷ Machonis (2009: 256) observes that this combination is possible with particle verbs with *up*. This combination of features is exemplified in Machonis’ article with the verb *stink up*, which demonstrates the morpho-syntactic combination which *PV out* does not seem to exhibit.

- a. *The old food stinks the room
- b. The old food stinks up the room
- c. The room stinks
- d. *The room stinks up

⁸ That locative *out* cannot be replaced by a full prepositional phrase is especially true in the more idiomatic expressions as omitting the particle and replacing it with a PP renders the expression unacceptable. However, it will be shown that even the particle in some idiomatic expressions can be replaced by a full PP, illustrating the variety of combinatorial properties of these expressions.

⁹ *Max left Katie* does not mean the same as *Max left Katie out*; thus, the single verb expression is considered unacceptable.

¹⁰ In other cases, it has been observed (Olsen 1996, Dehé 2002) that the particle *out* may surface in the discontinuous form following the **Prep N₂** phrase as in **Prep N₂ out**.

- a. The student *filled* the application from the website *out*

In this example, the prepositional phrase is a fairly productive adjectival modifier and so the particle can appear in three different positions, the continuous order, the discontinuous order, and after the **Prep N₂** phrase:

- b. The student filled (*out*) the application (*out*) from the website (*out*)

While this **Prep N₂** phrase indicates adjectival modification of the *N₁*, it is not the type of syntactic prepositional phrase under discussion. In fact, the type of locative PP under analysis cannot appear at the end of the construction (i.e. **The students wheeled the keg through the door out*) and only two structures are acceptable, namely *N₀ V out N₁ Prep N₂*, or *N₀ V N₁ out Prep N₂*.

¹¹ This number does not include expressions which can undergo the derivation, but in doing so the meaning changes, as in:

- a. The student checked the books out of the library → The student checked out the library

While the new expression is an acceptable construction, it is not synonymous with the original longer structure and therefore a [-] under the *N₀ V N₂ out* column.

¹² This syntactic behavior was also observed by den Dikken (1995) and Dehé (2002), in the following examples:

- a. They *sent* a schedule *out to the stockholders* ↔ They *sent* the stockholders *out* a schedule
(den Dikken 1995:55f.)
- b. Andrew will *print* a copy *out for his teacher* ↔ Andrew will *print* his teacher *out* a copy
- c. Susan *poured* a drink *out to the man* ↔ Susan *poured* the man *out* a drink
(Dehé 2002:2)

¹³ Dehé (2002) refers to complex particle verbs as the *N₀ V N₂ out N₁* type and gives the example *He made John out a liar* which appears to be derived from the construction *He made a liar out of John*. This PV was not included in the data because it cannot appear in the simple continuous and discontinuous order (**He made a liar out* ↔ **He made out a liar*), and therefore not the type of *PVs* analyzed in this paper.

¹⁴ This expression is not synonymous with *The water spilled out the glass*.

¹⁵ This example has an alternative meaning which seems to surface when an adverb follows the expression, i.e. *The nail screws out the wood easily*. This is known as the ‘pseudo-passive’ construction and was not considered in the analysis since these constructions do not imply an agentive subject.

¹⁶ It was commonly brought to attention that some of these questionable examples seem to sound better when followed by an adverb exhibiting the ‘pseudo-passive’ construction, as in *The stain rinses/ washes/ rubs/ out the shirt easily*. Again pseudo-passive constructions were not considered in the analysis, and thereby marked [-].

¹⁷ As noted, changing the arguments of the verb yields differing syntactically acceptable constructions; thus, in this example changing *chair* to *ball* results in acceptable constructions in (57a-e) and (58a-e).

¹⁸ This example comes from *The police cleared the people out of the streets* forming the new expression *The streets cleared out of people*. Depending on the speaker, some of these expressions vary in acceptability.

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