

Can we factor out free choice?¹

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1. Introduction

Grammar often provides speakers with alternative ways of encoding a certain piece of conceptual substance. Yet, speakers are rarely entirely free to make a choice between the alternatives, since each grammatical option is usually subject to a variety of constraints, some of which may very subtly guide speakers to make the choices that they do. In other words, in those cases when speakers seem to be free to choose from among two or more options, this freedom may be more apparent than real. This raises the following central question addressed in this paper: if we itemize all the factors that can play a role in the actual choices speakers make when grammar offers them alternatives, could we eventually eliminate all semblance of freedom?

I will maintain that in however great detail we can describe the impact of diverse factors that play a role in a given grammatical alternation, we may never be able to exclude an element of random selection. The various factors that are involved in the variation obviously limit the degree to which the speaker is actually free to choose between the options available in a particular case of grammatical variation, but they may not be able to reduce the amount of freedom to zero.

The discussion will turn on a familiar case of grammatical variation, namely particle placement in English, and we will consider some of the factors that have been argued to constrain this variation. Given the scope of this paper, it is not possible to describe all the relevant factors in detail. Our purpose is merely to give a flavor of the diversity of factors and to have some concrete material that enables us to broach the question that we are ultimately interested in.

The grammatical variation discussed in this paper is also interesting to theoretical linguists because it reveals a couple of requirements that one's grammatical framework has to meet if it is to accommodate grammatical variation in a way that is in keeping with what we can reasonably assume about its cognitive status. This is the topic of the next section.

2. Particle placement and linguistic theory

A much-studied locus of grammatical variation is the positional variability of verbal particles in English, which can in principle occur on either side of the object of transitive phrasal verbs:

- (1) a. *Don't just throw away that wrapper.*
b. *Don't just throw that wrapper away.*
- (2) a. *I couldn't make out the words.*
b. *I couldn't make the words out.*
- (3) a. *They managed to medevac out all the injured.*
b. *They managed to medevac all the injured out.*
- (4) a. *We'll try to sex down that dossier a bit.*
b. *We'll try to sex that dossier down a bit.*

Adopting the straightforward terms used by Lohse et al. (2004), I will call the first construction, where the verb and the particle are in adjacent positions, the 'joined' construction and the second construction, with an intervening object NP, the 'split' construction.² The general availability of both orders can be observed irrespective of whether the verb-particle combination is well-established (as in the case of, e.g., *throw away* and *make out*) or novel (as in the case of, e.g., *medevac out* and *sex down*). Moreover, the two orders are also available irrespective of whether the combination is literal (as in the case of, e.g., *throw away* and *medevac out*) or newly created (as in the case of, e.g., *make out* and *sex down*). An overview is given in Table 1, which demonstrates how lexicalization and literalness are distinctions which cross-cut the entire class of alternating transitive phrasal verbs. That is, these distinctions do not set apart transitive phrasal verbs with variable word order from those without.

Table 1. A simple 2x2 classification of transitive verb-particle combinations by lexicalization and literalness, with an example of each resulting category

	lexicalization	established	new
literalness			
literal		<i>throw {away} NP {away}</i>	<i>medevac {out} NP {out}</i>
idiomatic		<i>make {out} NP {out}</i>	<i>sex {down} NP {down}</i>

Of course, it would be naïve to think that we can draw a sharp division line between established and new combinations, and between literal and idiomatic ones. First, the distinction between established and new combinations is artificial and simplistic, because a combination may be part of the lexical knowledge of some speakers while being not (or not yet) conventionalized in the vocabulary of others. For example, *medevac out*, though marked as ‘new’ in Table 1, may be fully institutionalized in the language of rescue workers. Second, as to the semantic distinction between literal and idiomatic combinations, one should allow for finer distinctions, relating to whether just the verb, just the particle or both can or cannot taken in a literal sense. I will come back to this later in this paper.

Leaving these reservations aside for now, the rough classification of transitive phrasal verbs given above conveniently allows us to discuss two important consequences for linguistic theory.

2.1. The treatment of ‘rules’ in the grammar

The first consequence relates to the availability of the two word orders for new transitive verb-particle combinations. The fact that we can effortlessly apply the placement alternation to newly coined combinations means that we must accord to this positional variability the status of a ‘pattern’, or, if one prefers to think in traditional terms, a grammatical ‘rule’. That is, the placement alternation is a generalization over individual alternating verb-particle combinations. This general pattern must somehow be part of what speakers of English know about English grammar.

Unless this pattern is innate (which is highly unlikely), it is acquired on the basis of specific and frequently-heard combinations that allow both orders. Thus, among many other such combinations, *throw away* and *make*

out serve to install in the mind of the language learner a pattern which can then be applied to combinations that are newly created.

This view calls for a linguistic theory which takes the behavior of concrete lexical items as primary and the generalizations extracted from their behavior as somehow secondary. The cognitive, usage-based theory of language learning, proposed most powerfully by Tomasello (2003), is nicely congruent with this requirement. In usage-based approaches, general patterns have no a priori existence but gradually emerge from low-level lexical chunks that a child can hear being used around him.

2.2. The treatment of ‘discontinuous’ lexical units in grammar

The second consequence of our classification of alternating phrasal verbs has to do with the fact that (the vast majority of) idiomatic verb-particle combinations display the two orderings. Obviously, idiomatic verb-particles combinations are lexical units, since the way they associate form with meaning is unexpected (if not always wholly unmotivated; see for instance Morgan 1997 and Hampe 2000) and therefore speakers must be able to retrieve these combinations as ready-made form-meaning pairings from language’s storage facility—the lexicon. But if they are lexical units, we need to be able to explain how they can surface as discontinuous items. This is quite a challenge for mainstream generative grammar, where lexical units are equated with words. Under the standard assumption of Lexical Integrity, word-level items are treated as atoms in syntax. This means that they cannot be split up, since movement operations only apply to words as a whole and not to parts of words.

By contrast, discontinuous lexical items are not at all problematic in constructionist approaches to grammar (e.g. Goldberg 1995), where lexical units are situated on a continuum from words and idioms to more skeletal phrasal and even clausal patterns.³ This continuum is known as the syntax-lexicon continuum or the ‘constructicon’. Phrasal lexical units can contain open slots alongside lexically specified material, so it is natural to have ‘discontinuous’ lexical items like [_{VP} *make NP out*]. In fact, such items are not really discontinuous, since their parts are all strung together. The seeming discontinuity results from the co-occurrence of open positions and pre-installed elements in the lexical construction.

3. The allostructional model

In the previous section, I have given some reasons why cognitive-constructionist theories are ideally suited to model grammatical variation. Such theories are essentially non-derivational: they do not treat surface structures as the outcome of syntactic operations on underlying structures, but instead treat surface forms as instances of constructions in their own right, paying close attention to their specific semantic, syntactic, phonological, and pragmatic properties.

Nonderivational frameworks consequently have as a major advantage over derivational frameworks that no energy is pointlessly spent—‘pointlessly’ from the perspective of the present author—to explaining how one grammatical variant can be derived from the other according to the rules of the latest generative game.⁴ However, while nonderivational frameworks can devote more useful energy to describing each construction on its own terms—‘useful’ again from the present author’s viewpoint—they face another potential problem, namely that, in the absence of a derivational link between two constructions, a cognitively real link between these constructions finds no representation in the grammar.

Cappelle (2006, to appear) offers a solution to this problem by modeling the joined and split orders of an alternating verb-particle combination as two *allostructions*, a term coined by analogy with *allomorphs* and *allophones*. Allostructions are (truth-)semantically equivalent but formally distinct manifestations of a more abstractly represented construction. Figure 1 shows the syntactic and semantic information associated with the allostructional variants of *blow up* and how this information links up with the information provided in the more general construction (shown at the top), which is semantically fully specific but which remains underspecified for the placement of the particle. Crucially, neither ordering is derived from the other in this allostructional model, unlike in generative approaches, while they are still linked to each other via a common abstraction, unlike in an extreme constructionist treatment like Gries’s (2003), where the two word order patterns are treated as so unique and distinct (*sui generis*) that their commonality is disregarded and even denied.⁵

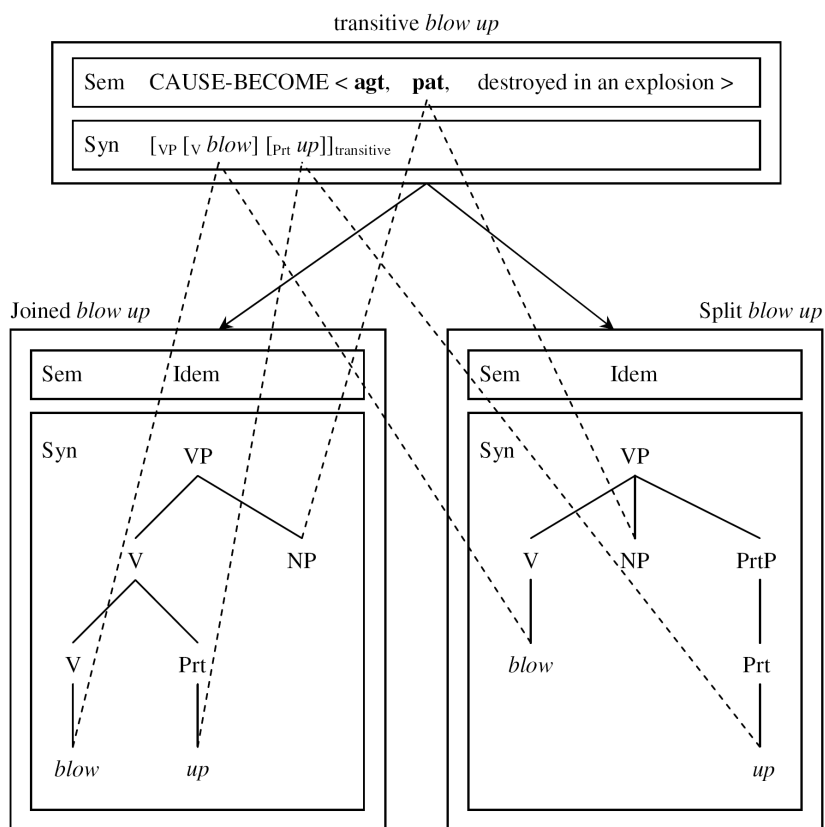


Figure 1. Allostructural model of transitive *blow up* (reproduced from Cappelle to appear)

Note, by the way, that the allostructural model meets the theoretical requirements mentioned in the previous section. First of all, structures like the one represented in Figure 1 can be given, *mutatis mutandis*, for most other transitive phrasal verbs, and from a sufficiently large number of these concrete structures, it is possible for learners to extract a metastructure whose semantics is fairly abstract (perhaps just CAUSE-BECOME < agt, pat, state >) and for which the nodes in the syntactic representations are lexically unspecified (i.e. there are no lexical nodes attached to V and Prt). Importantly, the fact that such a general pattern still contains two

allostructional variants allows speakers to ‘know’ that new instances of this general transitive verb-particle construction can have two manifestations as well.

Second, observe that the ‘split’ ordering is not represented as the result of a reordering operation and is not discontinuous in any way. Indeed, the NP which intervenes the verb and the phrase is an essential part of this allostruction, since it is the constituent which is linked with the patient role in the semantic representation. For the same reason, the NP is also an integral part of the ‘joined’ ordering, which accordingly does not have the particle as its right boundary.

That there is in effect a link between the two alternative word orders becomes clear if we look at idiomatic verb-particle VPs where the object NP too is (partly or wholly) lexically specified. Many such idioms occur in the two variants; Table 2 gives the frequencies that the two orderings of some typical examples have in the British National Corpus.

Table 2. Frequencies of the continuous and the discontinuous manifestation of some verb-particle idioms with a fixed NP, based on the BNC

	continuous	discontinuous
<i>make {up} PRO's mind {up}</i>	211	45
<i>roll {up} PRO's sleeves {up}</i>	51	10
<i>push {out} the boat {out}</i>	5	13
<i>take {away} NP's breath {away}</i>	5	100
<i>turn {back} the clock {back}</i>	14	31

Such alternating idioms make it highly improbable that the two word order patterns associated with the transitive verb-particle construction are not perceived by the speaker as being linked to each other, because that would mean that the lexicon contains two unrelated sets of idioms, one set with V-Prt-NP ordering and another set with V-NP-Prt ordering, and that for many if not most idioms from the first set, there *coincidentally* exists a very similar idiom in the second set which has identical meaning and quasi-identical form. Of course, such unlikely coincidence disappears if we assume that the idioms mentioned here are listed just once in the lexicon as lexical units, which, by virtue of being instances of the transitive verb-particle construction, have a dual manifestation. That most of these

alternating idioms are strongly skewed towards one particular manifestation merely proves that some lexical combinations have conventionalized preferences, for which see also Section 5. In fact, for certain verb-particle expressions of which a speaker has encountered only one ordering, this particular ordering may be the only alternative that will be stored for that expression. For example, *blow off steam* is a frequently used idiom and it is in all probability lexicalized in this form only, since the split ordering *blow steam off* is hardly ever used. Consequently, when the speaker is called on to generate an instance of this idiom, the stored joined version will practically always win out over the theoretically possible split alternative, even if the speaker has already extracted a schematic allostructional network which would enable the production of this alternative. (See also Diessel and Tomasello (2005) for the view that two-year olds may already have access to the particle movement alternation but that some of their frequently used verb-particle combinations have been memorized with a fixed ordering.)

4. How relevant are lexicalization and semantics to particle placement?

In Section 2, I presented the particle placement alternation as something that is fairly robust with respect to the two distinctions mentioned there, namely the distinction between literal and idiomatic combinations and the distinction between established and new ones and I subsequently considered some implications for linguistic theory. In Section 3, then, I presented a model which takes account of these implications and which moreover allows us to integrate the idea that two grammatical alternants are cognitively related and the idea that each alternant is a construction of its own. It is now time to have a closer look at the two distinctions which gave rise to these theoretical considerations. The question at stake now is whether they influence particle placement in any way, even if, as I claimed, they do not distinguish alternating from non-alternating phrasal verbs.

Although the alternation *is* robust (by which I mean that it generally holds for members of each cell in Table 1), it has been argued that the oppositions of established vs. new and literal vs. idiomatic combinations do play a role in the placement variation.

4.1. On the role of lexicalization

First, as regards the establishedness (entrenchment) vs. newness (novelty) of verb-particle combinations, there is some evidence that if a combination is coined on-the-fly rather than retrieved from memory, it has a significantly higher chance of occurring in the split order pattern (V–NP–Prt). In a small corpus investigation reported in Cappelle (2005: 271–272), 2418 verb-particle combinations were extracted from the ICE-GB corpus. They were then all looked up in five specialized phrasal verb dictionaries, by way of operationalizing the value ‘±lexicalized’. Thus, a combination not attested in any of the specialized dictionaries was considered ‘–lexicalized’ (i.e. ‘new’).⁶ The results of this checking operation are represented in Table 3:

Table 3. The distribution of the joined versus the split order of transitive verb-particle combinations in ICE-GB according to dictionary attestation

	Attested combinations	Unattested combinations	Row totals
Joined (V–Prt–NP)	1,234	40	1,274
Split (V–NP–Prt)	1,044	100	1,144
Column totals	2,274	140	2,418

The overall proportion of unattested combinations (140 out of 2,418 combinations, or 5.8%) perhaps seems rather small at first sight. On the other hand, keeping in mind that phrasal verbs probably constitute the best-monitored multi-word type in the English language, we may still be surprised to find that a relatively small corpus like ICE-GB (ca. 1 million words) can contain 140 verb-particle combinations that have escaped the gaze of lexicographers in general and phrasal verb spies in particular.

More pertinent to our concerns is the observation that these unattested combinations do not follow the distribution of attested combinations: instead of a slight preference for the joined order, the data reveal that the majority of ‘new’ combinations occur in the split order. This is a skewing that cannot be attributed to chance ($\chi^2 = 34.7$; $p \leq 0.001$).

We may speculate about the reason behind this association of novelty with the split order. One possible explanation lies in my operationalization of the value \pm lexicalized as \pm attested. If a verb and a particle are frequently used in each other's vicinity but do not occur in strictly adjacent positions, they have more chance of going unnoticed as a collocation. In other words, some combinations may be unattested not because they are not lexicalized but precisely because they most often occur in the split order. To give one (made-up) example, a lexicographer might fail to record *shove ... away* as an established combination if the only instances of this combination in the lexicographer's corpus are realized in the split pattern. But just because *shove away* might be unattested in a dictionary, this does not mean this combination is actually a novel combination, since speakers of English undoubtedly have heard it on many occasions.

Another explanation may be found in the fact that most of the novel combinations detected in ICE-GB are transparent combinations, with the verb and the particle being semantically mutually independent (e.g. *rationalise the dichotomy away*; *demand their money back*; *juxtaposing certain funny people together*). As we will see shortly, if the particle is literal, the split order has a significantly higher chance of getting selected than if the particle is idiomatic. In other words, the novelty of a verb-particle combination may not be a relevant factor for particle placement at all, in that its apparent influence on word order choice may be a mere side-effect of the independence of the particle. While this possibility will not be resolved in this paper, it proves just how important it is to conduct advanced multivariate analysis of the sort advocated by Gries (2003)—and others in his footsteps.

The two possible reasons for the predominance of split orders among the unattested combinations might reinforce each other. The fact that many of the unrecorded combinations are completely freely composed phrases, as we have just seen, could have as a consequence that lexicographers do not feel the need to record them as lexical items, especially if the particle is not found directly adjacent to the verb and accordingly does not look as though it forms a unit with that verb.

4.2. On the role of literalness

As regards literalness (transparency, compositionality) vs. idiomaticity (opacity, non-compositionality), it has frequently been stated in the literature that idiomatic combinations favor the joined order (V–Prt–NP)

significantly more strongly than do literal combinations. This claim has found empirical support—see, e.g., the experimental and corpus-based evidence supplied by Dehé (2002) and by Gries (2003), respectively.

Now, what we need to agree on, of course, is what counts as a literal combination and what counts as an idiomatic combination. Remember that Table 1 distinguishes between literal and idiomatic combinations but provides no room for in-between cases. A more fine-grained categorization is represented in Table 4, where besides extremes like *throw away* and *make out*, we have some mixed cases.⁷

Table 4. A 2x2 classification of transitive verb-particle combinations by (in)dependence of its parts, with an example of each resulting category

	verb	independent	dependent
particle			
independent		<i>throw {away} NP {away}</i>	<i>pick {up} NP {up}</i>
dependent		<i>kill {off} NP {off}</i>	<i>make {out} NP {out}</i>

Let us briefly run through the categories. First, in fully transparent combinations, like *throw away*, the verb and the particle are mutually independent: they each contribute their literal meaning to the composite meaning of the combination. Second, in a combination like *pick up*, the verb depends on the presence of the particle for its correct interpretation in the combination. That is, only the particle contributes its literal meaning, while the verb is semantically modulated. That is, nothing is ‘picked’ literally, but something does go ‘up(wards)’. In a combination like *kill off*, then, we have the reverse situation: the particle depends on the presence of the verb for its interpretation in the combination. Something is literally killed, but it does not literally go *off*. In a combination like *make out*, finally, neither the verb nor the particle can be said to retain its literal meaning in the combination. This combination is fully opaque.

Now, Barbara Lohse et al. (2004) coded the material in their corpus according to this classification, which, though still rather crude, nonetheless enabled them to refine the claim that literal combinations split more easily than idiomatic ones. Apparently, what matters more to the ordering alternation is whether or not the particle retains its literal meaning than whether or not the verb does. Thus, *pick up* and *kill off* are each 50% idiomatic, but since the particle is literal in *pick up*, this combination is

somewhat easier to split than *kill off*, where the particle is semantically modulated.⁸

A further question to be asked is this: Why exactly would literalness matter to particle placement at all? That is, why is it that the split ordering is found more often with independent particles than with dependent ones? According to Gries (2003), this has to do with pragmatics, more precisely focus structure—a factor which is itself ultimately linked with processing effort:

Even if we did not already know from the literature which of the two word orders is more common or acceptable with which degree of idiomaticity of the verb phrase, we could already make an educated guess: in [the split construction], the particle is positioned in the canonical position for focal elements, i.e. clause-finally, so that the particle is processed more intensively than the direct object. Thus, [the split construction] naturally underscores the spatial contribution the particle makes to the meaning of the utterance and would, therefore, be the natural choice for a speaker who intends to communicate a state of affairs where the spatial meaning is prominent. (Gries 2003: 52–53)

Although this account sounds plausible, there are some problems with it (see also Cappelle to appear).

First, it is not really the case that phrasal verbs with independently meaningful particles clearly *favor* the split order construction. Rather, it is phrasal verbs with semantically *dependent* particles that *disfavor* this ordering, or as Lohse et al. (2005: 256) put it: “Highly idiomatic particle verbs prefer a joined ordering, but there is not an equally strong preference for a split ordering with literal particle verbs”, a point which is in fact acknowledged by Gries (2003: 53).

Second, although an independently meaningful particle can easily receive end-focus in the split order construction, such a particle may also perfectly appear at the end of a clause *without* carrying end-focus. This is actually the default situation; clauses in which the particle is identified as the clausal focus are very rare. Consider the following example:

- (5) *A car abandoned outside a restaurant for more than two years is still waiting to be moved after the council tried to tow the wrong one away.* (www)

Here the particle *away*, though final, remains out of focus, since together with the verb, it gives information that can already be expected from the

context. Note also that if the sentence were to be read out loud, *away* would receive no prosodic prominence. The object NP *the wrong one*, by contrast, is clearly the constituent that is to be given focal emphasis, as it is contrasted with the discourse element *a car abandoned outside a restaurant for more than two years*.

In short, if semantic transparency seems to play a role in particle placement (split orderings occurring more often with independent particles than with dependent ones), this role cannot straightforwardly be explained as being a side-effect of the fact that end-focus can only target semantically independent element and that only the split ordering can put an independent particle in end-focus position. While this fact may be true in itself, it does not fully explain the observable data. Thus, we should not ask why independent particles occur after the object NP more often than dependent particles do. Instead, we should ask the question from exactly the reverse perspective: Why do dependent particles occur before the object NP more often than independent particles do? The likely reason for the observation that idiomatic combinations are not comfortable in the split ordering is that using them in this ordering puts a significant strain on the processor, which then has to keep the verb in working memory until the particle is reached. By contrast, keeping the verb and the particle together minimizes the distance between the verb and the particle and accordingly also the effort required to process them as a lexical unit (cf. Lohse et al. 2004 for more technical details).⁹

As regards focality, we can see an interesting asymmetry in possibilities. On the one hand, if the particle is meant to be perceived as focal, it has to appear at the end (but as we have just seen, a particle in final position need not be focal). This is even true for non-spatial particles that are focal, as (6) illustrates. On the other hand, if the object NP is intended to be the constituent under focus, it can appear both after and before the particle. Compare:

- (6) a. *He always liked to light a scene down, not up.* (www)
 b. **He always liked to light down a scene, not up.*

- (7) a. *... after the council tried to tow away the wrong one.*
 b. *... after the council tried to tow the wrong one away.* (= (5))

In other words, when the particle is the focus of the clause, the speaker lacks the freedom which she has when it is the object NP which is the

focus. In Section 5.3 below, we will explore in more depth the question whether the speaker is really free to utter either (7a) or (7b).

5. Other factors, and when they fail to restrict freedom

5.1. Other contributing factors

In the previous section we discussed the possible impact of just two factors that have been related with the particle placement variation. Apart from these, a long list of other factors have been identified in the rich literature on this alternation. Among the many issues that have been shown to play a role are those which hinge on (i) whether the object NP is an unstressed pronoun, (ii) whether the NP is long or syntactically complex, (iii) whether the NP has been mentioned or evoked in the preceding context, (iv) whether the particle is the head of a multi-word phrase, (v) whether the verb-particle combination in question simply happens to favor or systematically select one or the other ordering, (vi) whether one of the orderings has been used shortly ago in the preceding context, (vii) whether the speaker uses a dialect in which one of the orderings is used more frequently than elsewhere, (viii) whether the discourse mode is written or spoken, and so on. For a general overview, see Gries 2003; for an overview of specifically context-related factors, see Cappelle to appear.

How these factors interact with each other and how these interactions are to be modeled are issues that we will not explore here in any detail. Let me just review three recent efforts at doing so. First, Gries (2003) considers all the significant factors in terms of their impact on processing ease, more specifically the ease with which the object NP is processed. He then integrates these process-related factors in a complex activation model (Gries 2003: Chapter 8), where each factor is weighted and thus influences particle placement to a higher or lesser degree. This is the main merit of Gries's model: we know exactly how much each factor contributes to particle placement.

Next, Lohse et al. (2004), dealing with a smaller number of factors (namely, the word length and internal build-up of the object NP and the literalness of the verb and/or the particle), formulate these factors in terms of not just one single but a few different processing-facilitating principles (relating to minimization of syntactic dependency and minimization of semantic dependency), which can ultimately be reduced to one single simple principle ('minimize domains'). Their account is explanatorily more

powerful than Gries's, where values for each of the factors are assigned 'post hoc' with such or such a degree of processing ease of the object NP. For example, for objects of word length 1, Lohse et al. predict (before carrying out a corpus study) that there will not be an ordering preference based on minimizing the domain of syntactic dependencies within the VP: the equal efficiency of the split and the joined ordering is not attributed to any intermediate processing cost of NPs of word length 1 but to the simple (and predictable) fact that both orderings enable the human parser to identify all the phrasal constituents of the VP equally fast with one-word object NPs. With objects of increasing word length, the split ordering can be predicted to be correspondingly less efficient compared to the joined ordering, in that putting the particle at the end requires the processing of more words before all the VP's immediate constituents can be detected. However, Lohse et al.'s account suffers from a lack of concern with weights attached to each domain whose minimization facilitates processing. To give an example, while one-word (non-prominal) NPs may favor neither the joined nor the split construction with respect to minimization of the syntactic dependency domain, the joined ordering should be preferred if the particle is dependent on the verb (p. 247). But if we do not know how strong this lexical dependency minimization effect is relative to the syntactic dependency minimization effect, we cannot predict how great the added benefit of verb-adjacency will be in the case of dependent particles.

Third, Cappelle's (to appear) model of particle placement factors and their interactions is an exercise in construing particle placement constraints as constructions, with the aim of incorporating both the V-Prt allostructions and the factors that contribute to their selection in a large construction network. For example, the fact that discourse-old NPs exhibit a preference to be positioned before the particle can be modeled as a constructional specification of the more general Given-X-new-Y construction (cf. Stefanowitsch and Gries 2002), and this specific construction can then in turn be inherited by a split use of a verb-particle combination in a concrete discourse context. The more 'constructions' this split verb-particle combination inherits, and the more powerful these 'constructions' are compared to others that are not inherited (in other words, compared to other constraints that are violated), the more felicitous this split use becomes compared to its joined alternative. Cappelle provides processing motivations for particle placement constraints which are more in line with those formulated by Lohse et al. (2004) than with Gries's (2003) single processing hypothesis. But unlike Lohse et al., he shows how

the constraints/constructions can all be ranked on an importance scale, although no attempt is made at providing an accurate ranking on an empirical basis.

5.2. Factors can have impacts which counteract each other

Some of the factors mentioned at the beginning of Section 5.1 have an absolute effect. For example, if the object NP is an unstressed pronoun, there is simply no choice but to choose the split order, as is clear if we compare (8a) and (8b):¹⁰

- (8) a. *He made it up.*
 b. **He made up it.*

Others factors have the effect of strong tendencies. For example, if the object NP has a length of five words or over, the chance that it will intervene the verb and the particle is extremely slim, but under the right circumstances we may nevertheless find a quite long and complex NP in mid-position. Compare (9a) and (9b), which both have a long and complex NP in the same pattern. While the object NP in (9b) is even somewhat longer than the object NP in (9a), it is more comfortable in the split ordering because it refers to something that has already been introduced in the discourse (or at least it contains information that is *supposed* to be known to the hearer):

- (9) a. **I made a story about him coming to town up.*
 b. *I think he knew I made the story of him coming to town once a year up, but he only alluded to it... (www)*

This shows that factors can interact by ‘pulling’ in opposite directions. For a similar example, consider (10):

- (10) a. **We will always be available to our past adopters and on request will always take back in their dogs.*
 b. *We will always be available to our past adopters and will always take back in any of the Dalmatians we have adopted out.* (www)

In these examples, the particle *in* is the head of a particle phrase (with *back* specifying *in*) and for this reason, the split ordering should normally be used, as is actually encoded in the syntactic representation shown in Figure 1. But since the object NP in (10b) is long and complex, this standard ordering is abandoned in order not to have too great a distance between the verb and the particle and because heavy material is generally saved for last (cf. also Lohse et al. 2004: 257, fn. 42)

In (9b) and (10b), the speaker appears to be free to choose an ordering which one particular factor would exclude, in favor of an ordering which another factor predicts. That there truly is freedom in these cases can be shown by the following examples. Here, the speaker uses the other ordering than the one chosen in (9b) and (10b), respectively, and the result is still grammatical.

- (11) a. *I think he knew I made up the story of him coming to town once a year, but he only alluded to it...*
 b. *We will always be available to our past adopters and will always take any of the Dalmatians we have adopted out back in.*

It must be noted that the freedom hinted at in the discussion of the above examples is merely an abstraction. Two opposing factors can only actually cancel each other out if they are equally strong in their effect—an unlikely assumption, as should be clear from Gries’s (2003) study. Granting this, the strong effect of one factor may be sufficiently weakened by another (or by a combination of other factors) to make the two orderings *practically* equally acceptable in a given situation. Furthermore, individual speakers may show slight differences in the way they weigh the constraints on particle placement, so that what is not a perfect cancellation for the speech community at large may be a (near-)perfect cancellation in that individual’s personal grammar.

5.3. Factors may not be applicable

Although there apparently is (a large degree of) freedom in the cases just mentioned, it is not for lack of impacting factors. On the contrary, we have seen that there are (at least) two factors which impact on the placement of the particle, albeit that their impacts somehow cancel or considerably take away from each other. This freedom is therefore to be distinguished from

the freedom which we observed the speaker has in (7), repeated here as (12):

(12) ... *after the city council tried to tow {away} the wrong one {away}*.

In this case, there are no obvious applicable factors which determine or even strongly influence particle placement. To begin with, the object NP is not an unstressed pronoun, so there is no compelling need to choose the split ordering. Nor is the object NP particularly long or complex, so there is no need to choose the joined ordering either. Next, while the object NP actually contains new information, it uses a definite determiner (*the*) and a proform (*one*), implying that the referent is contextually available, so the object NP is neither completely discourse-old nor completely discourse-new, and hence there is no argument for the use of one ordering rather than the other based on the discourse-status of the object. Further, the particle does not head a particle phrase, so the joined order does not have to be chosen on that account. Next, the verb-particle combination *tow away* does not lexically specify that it has to be used with either the split or the joined ordering. With respect to lexicalization and literalness, discussed in the previous section, *tow away* is not a new combination, so the split ordering is not to be favored because of that, and it is a literal combination, which we noted favors neither the split ordering nor the joined ordering. The example comes from written discourse, but the impact of discourse mode on word order is only visible in a large set of examples and is certainly not so strong that it *prevents* the use of one ordering or the other. Other factors related to discourse and context cannot be considered here, but their effect, if any, would be similarly low compared to the effect that, say, an unstressed pronominal object might have on particle placement. In short, for all or most of the factors we know can determine or strongly influence particle placement, the sentence in (12) remains insensitive. This means that the speaker can choose fairly freely between the split and the joined order.¹¹

6. Discussion and conclusion

The sentence in (12) and the sentence pairs (9b)-(11a) and (10b)-(11b) are not isolated examples of freedom with respect to particle placement. Using a multifactorial technique which integrates all the relevant factors ever postulated (in a long-standing literature reaching back to the end of the

nineteenth century), Gries (2003) was able to predict 'only' 83% of the choices native speakers make in a corpus. While this predication accuracy is reasonably impressive, the remaining 17% cannot just be ignored. They suggest that free choice in making grammatical choices is not an illusion in some cases.

On one hand, this may be felt to be frustrating to researchers intent on fully accounting for linguistic behavior. Accepting that there is free choice seems to be at odds with the scientific aim of explaining why (and predicting when) a speaker prefers one construction over another. Free choice can present itself to the researcher in at least two undesirable ways: (1) the availability in a given discourse situation of two (or more) options none of which a calculation based on an exhaustive set of factors singles out as clearly the most appropriate in that situation; or (2), the possibility that when such a calculation predicts that a particular form is chosen in a given discourse situation, this is nonetheless not the form that is *actually* chosen by the speaker. The first scenario is what is usually understood by 'free variation' (cf. example (12)): there are no obvious impediments for the use of option A, nor are there any for the use of option B, etc. The second scenario involves the speaker choosing a form that she should not choose if she were to stick to the behavioral rules observed by the linguist. This case thus approaches the notion of 'performance error'. This kind of free choice, where the speaker is free to choose the 'wrong' choice, is especially dispiriting to the variational linguist, in that the validity of the linguist's model of reality is called into question by reality itself.

On the other hand, linguists might find consolation in the realization that there need not be a contradiction between the search for determinants of grammatical variation and the acceptance of some entropic remainder. Factors influencing the selection of one construction instead of its competitor(s) are seldom hundred per cent compelling. More typically, the factors influencing a grammatical variation are formulated as statistical tendencies. Thus, when a value obtains for a particular factor (e.g. four words for the factor 'length of NP'), this typically only increases or decreases the likelihood that one of the alternatives is used. Furthermore, the semblance of free variation may result from the opposing influences of different factors, which thus cancel each other out or at least subtract from each other, rather than from the absence of any influences, as we have seen in section 5.2.

To conclude, linguists should remain unfazed in their quest for determinants of grammatical variation, even if, as I hope to have shown in this paper, an exhaustive list of determinants may never be able to

completely rule out a speaker's freedom of choice. This freedom may actually prove to be both interesting and challenging to variationists, since it forces them to explain why an obvious constraint does not exert its force in certain utterances, possibly leading them to the discovery of factors not yet considered before.

Notes

1. The author is a Postdoctoral Fellow of the Research Foundation – Flanders (FWO – Vlaanderen) and gratefully acknowledges financial support from this institution.
2. Another pair of terms sometimes used in the literature is 'continuous' versus 'discontinuous' order/construction.
3. In less mainstream generative circles, some linguists have proposed a very similar solution to the Lexical Integrity problem. For instance, Jackendoff (2002) and Blom (2005) grant that lexical units need not be word-level units (X^0). If one allows lexical units to be phrasal in nature (verb-particle combinations being a case in point) one can subsequently restrict the Lexical Integrity Principle in its application, such that it only treats word-level lexical units, not phrasal lexical units, as inseparable atoms in syntax.
4. Moreover, with respect to the particle placement alternation, much ink has been spilt in the generative literature not only over the question how one ordering is to be derived from the other but also over the question which ordering is to be considered as basic. For an extensive discussion of the main generative proposals, I refer the reader to Dehé (2002: Chapter 2).
5. Most details of Figure 1 are in fact compatible with Farrell's (2005) generative account of the ordering alternation, to which the more primitive 'allostructions' model independently proposed in Cappelle (2006) is similar in general spirit, though not (yet) in details. In Farrell's analysis, neither ordering underlies the other; rather, they directly enter the syntax as two different realizations (either as a lexical compound or as a discontinuous verb) of a single lexeme with unitary semantics. In the discontinuous realization, the particle can be expanded into a particle phrase (PrtP), irrespective of whether the verb-particle combination is idiomatic or not—see Cappelle (submitted).
 - (i) a. Walsh was throwing them *more than 500 feet straight down!*
(www)
 - b. Suddenly, "DM" hooks a hard louie into hot, foggy electric blues, smothering the brutality under passionate, unrequited longing for something or other. One might call it honorable. Then, with a "heeey!" and a "wow-da—wow—da," "Nothing" freaks us *right back out.* (www)

In the joined ordering, the particle cannot expand into a phrasal category, since it is a part of a complex verb (i.e. a word-level category), and since on standard (but actually too simplistic) morphological assumptions, words cannot contain phrasal material. We will see in section 5.1 that there are exceptional cases in which a particle can be the head of a particle phrase even when the object NP follows it, due to heavy NP shift.

6. The following dictionaries were used: *Cambridge International Dictionary of Phrasal Verbs* (1997), Sinclair's (1989) *Collins COBUILD Dictionary of Phrasal Verbs*, Courtney's (1983) *Longman Dictionary of Phrasal Verbs*, Cowie and Mackin's (1993) *Oxford Dictionary of Phrasal Verbs* (1993) and, accidentally not mentioned in Cappelle (2005), Heaton's (1965) *Prepositions and Adverbial Particles*.
7. Gries (2003) adopts a tripartite distinction between literal, idiomatic and, as an in-between case, metaphorical combinations. I do not think this is a very sensible classification, since metaphorical usage is orthogonal to the literal/idiomatic distinction. For example, on the uncontroversial assumption that *soar up* is a literal combination and *eke out* ('obtain with difficulty') is an idiomatic combination, we find that both combinations can be metaphorically applied to non-human subjects like prices or shares:
 - (i) a. Air New Zealand shares soared up to five per cent on the NZ stock exchange (www)
 - b. Oil and gas shares eked out slender gains even though crude prices fell (www)

My point is that *soar up* is not any less literal or semantically transparent in (ia) just because it is applied metaphorically to shares nor indeed is *eke out* in (ib) any less idiomatic because its use is similarly metaphorical. In other words, it is misguided to think that metaphorically used phrasal verbs constitute a middle ground between literal and idiomatic combinations.

8. Still more recently, Diessel and Tomasello (2005) observed that the meaning of the particle is even a significant factor for particle placement in the language of children as young as about two years old, in the same way as in adult language: they found that spatial particles tend to follow the direct object more often than non-spatial particles do.

Note, though, that a particle need not be spatial to be semantically independent of the verb (e.g. Cappelle 2002: 50-57; Lohse et al. 2004: 251, fn. 31). For example, in *turn the lights out*, the particle *out* is obviously non-spatial but it does not rely on the verb *turn* for its interpretation. Indeed, you can also PUT or SWITCH the lights out and an experienced gunslinger could even SHOOT the lights out, and the result of all these actions is that the lights ARE out. That semantic independence may be syntactically more relevant than spatiality is clear in the particle preposing pattern. This construction is uniquely reserved for semantically non-dependent particles (e.g. **Up blew the car*; **Out he freaked*) but it accommodates both spatial particles (e.g. *Out you*

go!; *Up she rises!*; *In came a beautiful lady*) and non-spatial ones (e.g. *Out went the lights*; *On came the engine*; *Away they sang!*).

As a reviewer correctly noted, if literal verb-particle combinations are used in the split ordering, as in *throw the wrapper away*, their syntactic realization mirrors the structure of other constructions in English whose meaning is similar (CAUSE-BECOME <agt, pat, state>), such as the resultative construction (e.g. *He wiped the sink dry*) or the transitive predicative construction (e.g. *She called him a jerk*), which for some functional or other reason have the same ordering of the patient and state argument.

9. Naturally, non-literal verbs also benefit from the close proximity of a particle for their interpretation. Yet, as we have seen in Section 4.2, their preference for the joined ordering is less pronounced compared to non-literal particles, according to Lohse et al. (2004). If I understand their account correctly, the explanation for this seems to be that a so-called ‘lexical dependency domain’ of a verb is not only made up of the verb and the particle but always includes (somewhat debatably, it seems to me) the head noun of the NP. Accordingly, in *pick up the heavy books*, the verb’s lexical dependency domain spans the string of words extending all the way from *pick* to *books*, which is five words, the same length as for *pick the heavy books up*. In other words, the joined ordering does not fare better than the split ordering when it comes to putting as close as possible to the verb all the elements that are needed for its interpretation. This said, the joined ordering has the advantage of minimizing the so-called ‘phrasal combination domain’ of the VP, which is the shortest string of words that need to be parsed in order to find all the VP’s immediate constituents. These words are in this case the verb itself, the particle, and just the first word of the NP. For the split ordering, by contrast, the entire NP needs to be processed before the particle is detected, making the phrasal combination domain longer. This added cost becomes higher as the NP increases in length (cf. also Section 5.1).
10. The ban on end-positioning of unstressed pronouns finds its motivation in processing—after all, pronouns typically refer back to what is contextually given, and using old information as a stepping stone for new information yet to come is an obvious processing-facilitating strategy. However, the well-motivated mid-positioning of pronouns has fossilized into a grammatical necessity, which can only be avoided if the pronoun is under focus (e.g. *Of all the dogs in the shelter, my master picked out me!* (www)). Since we are dealing with a categorical constraint (i.e. unstressed pronouns can only occur in the split ordering, *no matter what*), we might wonder whether we ought not to distinguish a separate allostruction of the transitive verb-particle construction whose syntax takes the form $[_{VP} V \text{PRON}_{\text{-stress}} \text{PrTP}]$.
11. Some evidence in support of this freedom comes from the distribution of the two orderings in the world wide web, where a Google search (21 April 2007)

for “away the wrong one” yielded 18 hits and a search for “the wrong one away” 15 hits—figures which are very close to each other indeed.

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