

CHAPTER XX

Contextual cues for particle placement: Multiplicity, motivation, modeling

Submitted to: Alex Bergs & Gabriele Diewald (Eds.) *Context in Construction Grammar* [working title], Constructional Approaches to Language series, Amsterdam & Philadelphia: John Benjamins.

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This chapter looks into a variety of contextual factors that play a role in a well-described case of grammatical variation: the particle placement alternation in transitive phrasal verbs (e.g., *to pick up the book / to pick the book up*). Most of the factors that linguists have argued to be of relevance to this alternation are phonological, morpho-syntactic, semantic or discourse-functional in nature (cf. Gries 2003). I am not concerned here with re-investigating all known factors. Rather, what I intend to do is (i) to single out those factors, both familiar and less familiar ones, that can be construed as involving, one way or another, the context in which the phrasal verb occurs, (ii) to formulate the motivation(s) beyond these factors, and (iii) to briefly consider how these factors might be integrated into a constructionist model of the variation. The main emphasis lies on my first aim.

The text is organized as follows. In Section 1, I introduce the ordering alternation at hand, as well as two important (and related) conditions on the morpho-syntactic form which the direct object noun phrase (NP) should take for the alternation to be possible: the object should not be an unstressed pronoun nor should it be syntactically heavy – in sum, it should have moderate weight. Section 2 links these two related constraints to a first, often-mentioned contextual factor, namely the discourse-familiarity of the object NP, which has to do with whether it refers to something that has already been mentioned or evoked in the preceding linguistic context (in which case that object will often be realized as an unstressed pronoun) or whether it introduces a new referent (in which case its identification may require lengthy and complex modifications of the noun).

The subsequent sections deal with other, less well studied or less obviously context-related factors. In Section 3, I will deal with a factor that could easily be (and often has been) confused with discourse-familiarity, namely focus structure. This factor is concerned, simply put, with whether or not a clause element provides prominent information, where ‘prominent’ can only be evaluated, of course, in terms of contextual relevance and importance. Section 4 presents a recently-discovered contextual factor: the presence of an instance of the transitive verb-particle construction in one ordering or the other in the immediately preceding linguistic context and its persistence effect on the word order of a subsequent occurrence of that construction. Section 5 looks into linguistic context in its widest sense: the impact of register and region. Section 6 is devoted to cues for particle placement coming from the context taken in a more extra-linguistic sense: here we look at how the choice for one or the other constructional alternative may be influenced by whether or not the referent of the direct object NP and the action it undergoes are expected given certain frame-based knowledge. Sections 7 and 8, then, deal with factors that might not seem to be related to the notion of context in any straightforward way: whether or not the verb-particle construction is stative, and the degree to which the verb-particle combination is semantically compositional, respectively. I will ask (and answer) the question how viable it is to reformulate these factors as contextual ones.

Section 9 provides some explanation of why the factors exert the influence that they do. Section 10, finally, reflects on how the impact of these contextual factors on the particle placement variation can be modeled in a constructionist framework.

1. Particle placement: The phenomenon

1.1 One alternation, two conditions

As is well known, the particle of a transitive phrasal verb can occur on either side of the object noun phrase. The examples given in (1) illustrate this placement variation:

- (1) a. They messed up the show. ('joined' ordering)
 b. They messed the show up. ('split' ordering)

Equally well known is that this variation is constrained by two conditions on the object NP, namely, (i) that it not be an unstressed pronoun and (ii) that it not be too heavy. If the object NP is an unstressed personal pronoun, the particle has to follow it; if it is decidedly heavy (more on which below), the particle has to precede it:

- (2) a. *They messed up it.
 b. They messed it up.
 c. They messed up everything we had all worked towards these last few months.
 d. *They messed everything we had all worked towards these last few months up.

Whether a pronoun is stressed or not is easy enough to ascertain in any given context, even when the mode of communication is written rather than spoken. In written discourse, different readers will normally reach a consensus as to whether the pronoun receives stress. The pronoun only receives stress if it is focused on, but this is a rather exceptional case for pronominal objects. Also, there is no gradience in 'stressedness' of an object pronoun. Either the pronominal object bears stress (i.e. is focused on) or it does not (i.e. is not focused on). There are no in-between cases. This is not to say, of course, that there cannot be any acoustical variation in spoken discourse with respect to the height of pitch or amplitude a speaker wants to assign to a stressed pronoun, but this is irrelevant to what is said here, *viz.* that it is generally clear whether or not a pronominal object receives stress, however much. In the rare case that it does, it can (but does not have to) follow the particle, as we will see in Section 3.2. In the much more common case that the pronominal object is unstressed, it obligatorily has to precede the particle. There simply is no other option.

By contrast, the end-placement of heavy objects is not a categorical constraint; rather, it is more of a tendency. That is, the requirement that particles precede heavy object NPs can only be expressed as a statistical generalization, not as an absolute rule, because there is only an increasing *preference* for end-placement of the object NP as its weight increases. Since the weight of the object NP (unlike the presence or absence of focal stress) is a matter of degree, we can only try to determine what can count as a *sufficiently heavy* NP for us to predict with a reasonable degree of confidence that the split ordering will be ruled out. Moreover, it is not immediately clear how we should define 'weight'. Do we have to look at crude factors like number of words or syllables (i.e. length) or is weight to be defined

relative to the internal constituency of the NP (i.e. complexity)? Or is there even another parameter that should be taken into account if we talk about the weight of a constituent?

1.2 Weight: A matter of length or a matter of complexity?

The earliest known formulation of the general principle of end-weight (Quirk et al. 1972) probably dates back to Otto Behaghel's (1909/1910) "Gesetz der Wachsenden Glieder" ('law of increasing elements'), of which he later gave the following concise formulation:

"Von zwei Gliedern von verschiedenem Umfang steht das umfangreichere nach."

(Behaghel 1930, cited in Arnold et al. 2000: 29)

('Of two constituents of different size, the larger one follows [the smaller one].')

Interestingly, Dik (1997 [1978]: 404) mentions Behaghel's law of increasing elements as the first statement of his own "principle of increasing complexity", notwithstanding that Behaghel's law clearly refers to size (i.e. length) and not to constituent-internal syntactic complexity. This goes to show that length and complexity are often treated as interchangeable parameters (cf. also Wasow 1997). There can be no misunderstanding, though, that length and complexity constitute different definitions of the concept 'weight'. So, the question is: Which parameter defines weight best – length (i.e. number of, say, words) or complexity (i.e. internal syntactic intricacy of the NP caused by the presence of, e.g., a postmodifier)?

Length apparently does play a role in constituent ordering. Charting the choice of particle-final placement against length of the object NP (measured in words) in a large set of corpus examples, Lohse et al. (2004: 243) observe a first marked drop in the choice of this ordering (from 40% to 18%) if the NP-length increases from two to three words, and a second marked drop (to a negligible 3%) if the NP-length reaches 5 words or over.¹ Yet, as Lohse et al. further point out, these marked drops may in fact also correlate with increasing internal complexity of the object NP, since NPs of length three have more chance of containing a modifying adjective (besides a determiner) and since NPs of length five or over have more chance of containing postnominal modifiers like prepositional phrases or relative clauses.

The idea that what actually determines particle placement is not so much the length of the object NP as its phrase-structural complexity has been suggested by various scholars, including Chomsky (1964 [1961]; 1975), Fraser (1966) and Ross (1986 [1967])². Complexity is usually taken to involve the presence of an embed-

¹ In his monograph on particle placement, Gries (2003: 83–85) obtained quite analogous results for different corpus data. Gries also considered length in terms of number of syllables, not just in terms of words. Both operationalizations of the factor 'length' proved relevant, though length measured in number of syllables appeared to be a slightly better predictor for particle placement (Gries 2003: 110).

² See also Gries (2003: 14–15) for some complementary references and for brief discussion of the literature.

ded clause. Thus, while the object NP in (3a) is longer – both in number of words and in number of syllables – than the object NP in (3b), the latter, containing a short relative clause, is clearly less grammatical in the split ordering:

- (3) a. I called almost all of the men from Boston up.
 b. *I called the man you met up.
 (Chomsky 1964 [1961]: 127, n. 18)

This contrastive pair of sentences seems very convincing. Surprisingly enough, though, corpus studies so far have not been able to confirm that it is indeed complexity and not sheer length that may prevent an object NP from occurring in the split construction. Gries's (2003) book-length study is aimed at dealing with just this kind of issue: finding out which of the factors ever proposed in the literature genuinely influence particle placement, and which of them are 'parasitical', in the sense that their values usually co-occur with the values of these genuine factors without themselves having an independent impact. If I interpret Gries's (2003: 110) results correctly, it looks as though complexity does *not* exert an influence on particle placement distinct from length. At least, his results appear to be rather equivocal. On the one hand, non-complex NPs (defined by him as either pronominal ones or as NPs consisting of only a head and possibly a determiner) and NPs with intermediate complexity (defined by him as NPs with an adjective, NPs with an *of*-PP or co-ordinated NPs) could both be shown to favor the split ordering independently of their length. On the other hand, complex NPs (defined as NPs with a finite or nonfinite postmodifying clause) apparently did not, independently of their length, prefer the joined ordering. I presume this non-finding is caused by the non-occurrence of complex object NPs that weren't also considerably long, as in (3b), in his set of corpus examples, which contains fewer than 500 sentences. Similarly indeterminate results are reported by Wasow (2002: 32-40), whose experimental and corpus findings could neither corroborate nor reject Chomsky's and some other linguists' claim that it is complexity rather than length of the object NP that influences particle placement.

1.3 Two conditions for the price of one?

Given that pronouns are short and non-complex, we may capture a generalization if we merge the two conditions on the form of the object NP, mentioned in Section 1.1, into one single condition. Thus, (4) is the formulation of a more general constraint on particle placement:

- (4) For the choice as to the placement of the particle to be in principle available, the object NP should have *moderate weight*.

By stating that the NP should have moderate weight, we at once exclude heavy NPs and unstressed pronouns from the set of object NPs that are allowed in the two constructions.

However, object NPs consisting of a single, one-syllable, non-pronominal word can still enter into the alternation (e.g. *He sure knows how to pick {up girls / girls*

up). This means that our question whether weight might involve more than just length and/or complexity (cf. the end of Section 1.1) may not have been unwarranted. For an object NP to be light, it should not only have minimal length and complexity, but it should also be phonologically reduced. What distinguishes the set of unstressed pronominal objects from maximally light non-pronominal NPs is their lack of phonological strength. That is, their initial consonant can be dropped (in the case of *him*, *her* and *them*) and/or their vowel can be shortened (in the case of *me* and *you*) or even neutralized to a schwa (in the case of *you*, *her*, *us* and *them*), or they can be reduced to their final (syllabified) consonant (in the case of *her* and *them*):³

That phonological strength may indeed also play a role in particle placement seems to be confirmed by the fact that a pronominal object NP which receives stress (thereby rendering impossible its phonological reduction – **pick 'EM up*) can occur to the right as well as to the left of the particle, as we have already pointed out above (compare *He sure knows how to pick {*up 'em / 'em up}* and *He sure knows how to pick {up THEM / THEM up}*).

1.4 Lexical restrictions

It should be borne in mind that object NPs of moderate weight cannot always occur in the two constructional variants because there are some verb-particle combinations which happen to be lexically constrained to have only one truly conventionalized manifestation, either the joined (V – Prt – NP) or the split (V – NP – Prt) ordering. For example, *blow off* ‘release’, *drum up* ‘obtain’, *give off* ‘emit’, *hold out* ‘foster (a feeling) in the face of hardship’, *kick up* ‘cause (trouble)’ and the full expression *take up arms* ‘become involved in a conflict’, among others, only seem to allow the joined ordering:

- (5) a. We all need to blow {off steam / *steam off} from time to time.
 b. It won't be easy to drum {up support / *support up}.
 c. Do you like candles that give {off a smell / *a smell off}?
 d. Families of the missing continue to hold {out hope / *hope out}.
 e. If it happens again, I'm gonna kick {up a fuss / *a fuss up}.
 f. The peasants are threatening to take {up arms / *arms up}.

Conversely, the object NP always seems to occur between the verb and the particle in combinations like *ask over* ‘invite at one's house’, *push around* ‘be bossy towards’, *see through* ‘bring to a happy conclusion’, *tell apart* ‘distinguish’, and in full expressions like *push the boat out* ‘celebrate regardless of expense’, *laugh/work one's ass/butt/socks off* ‘laugh/work excessively’ and the popular humorous taunt *{[Someone],} eat your heart out {[someone]}!*:

³ Except perhaps for some slight centralization, the pronoun *it* cannot be further reduced. However, this pronoun is in its present appearance already a reduction from the original form *hit*. An aspirated onset to the pronoun *it* can in fact still be heard in some isolated British and American dialects (cf. AHD 2000: ‘Our living language’ note in the entry of *it*).

- (6) a. It's been ages since we invited {*over the neighbors / the neighbors over}.
- b. I don't like the way he pushes {*around my mom / my mom around}.
- c. You can depend on us to see {*through the job / the job through}.
- d. She really pushed {*out the boat / the boat out} for her fortieth birthday.
- e. I've been working {*off my ass / my ass off} all day.
- f. Van Gogh, eat {*out your heart / your heart out!} (*implies that the speaker or someone known to the speaker can do something better than the (absent) addressee, who is widely acclaimed for excelling in the relevant field, in this case that of painting*)

Combinations like those illustrated in (5) and (6) merely represent the extremes on a continuum of preferences there exist for lexicalized verb-particle combinations (cf. Biber et al. 1999: 933; Gries and Stefanowitsch 2004: 110–113; Szmrecsanyi 2005: 130 ff.) Less extreme cases are, for example, *find out* 'discover' and *pluck up* 'muster', which *usually* pattern like the combinations in (5) and, towards the other extreme, combinations like *answer back* 'reply or interrupt impudently when being scolded' and *get a word in edgewise* 'find an opportunity to say something', which *usually* pattern like those in (6):

- (7) a. They will find {out the truth / ??the truth out} someday.
- b. I must pluck {up my courage / ??my courage up} and tell her I love her.
- c. In my days, we never answered {??back our parents / our parents back}.
- d. When he talked, nobody else could get {??in a word / a word in} edgewise.

Around the middle of the continuum are combinations that have a less clear preference for one ordering or the other, like *beat up*, *hand over*, *shoot down*, *try out*, etc.

Note, finally, that when the object NP is an unstressed pronoun, it still has to precede the particle of a phrasal verb situated at the extreme represented by the combinations in (5):

- (8) a. The "angry youth" were allowed to blow off steam. Well they *blew it off*, alright, and stabbed a visiting Australian yeshiva student named Yankel Rosenbaum to death. (www) (*cp. *... blew off it*)
- b. Still, many people find that if they want support for coping with a rare disease, they have to *drum it up* themselves. (www) (*cp. *... drum up it*)

Apparently, the general 'grammatical rule' requiring the particle to follow an unstressed pronoun always takes precedence over (i.e. is always stronger than) any ordering convention on the level of individual verb-particle combinations. Farrell (2005: 130) takes this as evidence that unstressed pronominal objects attach to the right of verbs as clitics or as some kind of inflectional affixes (more or less as in French, where unstressed object pronouns attach to the left of the finite verb, e.g. *M'as-tu vu?*, *Me-have* you seen?, i.e. 'Have you seen me?'). We might therefore say that this cliticization/affixation mechanism, if that is what it is, applies across

the board, staying blind to whichever fixed order of the particle *vis-à-vis* the object NP is otherwise observed with particular phrasal verbs.⁴

1.5 Summary of Section 1

To sum up so far, there is a general ordering variation in English between the non-verbal element (the ‘particle’) of transitive phrasal verbs and its direct object NP. In the ‘joined’ ordering, the verb and the particle are in adjacent positions, with the direct object NP occurring to the right of the particle (e.g. *stick out your tongue*); in the ‘split’ ordering, the verb and the particle are separated from each other by the intervening direct object NP (e.g. *stick your tongue out*).

If the direct object NP is extremely light, only the split ordering is possible; if it is very heavy, only the joined ordering is possible. A direct object is extremely light if it consists of a single syllable which is phonologically reducible, i.e. whose initial consonant can be dropped and/or whose vowel can be shortened and/or further neutralized. In practice, we can say that the direct object NP is extremely light if and only if it is an unstressed pronoun. A direct object is very heavy if it contains an embedded clause. In practice, such an object will also be quite long, and a length of five words or over has proven to be by itself a sufficiently accurate predictor for the choice of the joined ordering.

If the direct object NP has moderate weight (i.e. if it neither is an unstressed pronoun nor has a length of more than four words), it can in principle occur before or after the particle. Individual verb-particle combinations, though, may still favor one ordering or the other. Still, even combinations with a very strong preference for the joined ordering cannot undo the ‘rule’ that unstressed pronouns must precede the particle.

2. Discourse-familiarity of the object NP

2.1 ‘Old’ before ‘new’: Terminological specification

Discourse consists of both content which the speaker takes to be old or known to the hearer and content which s/he assumes to be new to the hearer. In constructing a sentence, the speaker ordinarily puts the informational content which is supposed to be old before that which is supposed to be new. ‘Old’ and ‘new’ can be interpreted in a variety of ways (cf., e.g., Prince 1981), for example as contextually given vs. contextually new, as ‘addressee-old’ vs. ‘addressee-new’, as ‘topic’ (what the sentence is about) versus ‘comment’ (what is said about the topic), as ‘theme’ versus ‘rheme’ (a distinction featuring prominently in the ‘Prague School’), or as ‘background’ / ‘presupposition’ versus ‘focus’ (cf. Section 3 for the latter distinc-

⁴ Besides, unstressed pronouns (*me, you, him, her, ...*) are not shorter or simpler than many particles (*up, in, out, off, ...*), so the light-before-heavy tendency (cf. Behagel’s law of increasing elements) cannot by itself account for the obligatory position of an unstressed pronoun on the left of the particle. Farrell’s (2005) cliticization/affixation analysis provides just such an additional explanation.

tion). In this second section I am concerned with the first distinction mentioned, also known as the distinction between ‘discourse-old’ and ‘discourse-new’ information. Discourse-old information is information coded in parts of the sentence that refer to entities, properties, propositions, etc. that have already been mentioned earlier in the discourse. Discourse-old constituents refer back to this familiar information either verbatim or, more often, via the use of anaphoric pronouns or other semantically related items (cf. Section 2.3 below). Discourse-new information is conveyed by parts of the sentence (possibly all of it) that do not take up familiar elements from the preceding discourse.

2.2 The relation between discourse-familiarity and weight

Discourse-familiarity usually correlates positively with weight, a fact that has not gone unnoticed by linguists. For example, Quirk et al. (1985: 1361) point out that “the new information often needs to be stated more fully than the given (that is, with a longer, ‘heavier’ structure)”, and Arnold et al. (2000: 34) give some further references to the generalization that “[i]tems which have been recently mentioned tend to be accessible to both speaker and hearer, and require less complex descriptions than items which are not”. Thus, because of their familiarity or lack thereof, respectively, discourse-old NPs can be referred to by means of short forms – most typically, of course, pronouns – while discourse-new NPs are often marked by the presence of modifications, appositions, etc.

Now, given this correlation between weight and discourse-familiarity, Wasow (2002: 81) asks the obvious question: “[D]o weight and information status exert distinct influences on ordering, or is one just a side-effect of the other?” (cf. also Arnold et al. 2000). That is: Do heavy constituents tend to be placed late in the sentence because they are usually new or do new constituents tend to be placed late in the sentence because they are usually heavy? Or, rather, is neither factor ‘parasitic’ on the other (cf. again Section 1.2 for this imagery) and do they have independent influences on word order?

Without going into this question in any depth, I confine myself to putting together two relevant facts known from the literature.

First of all, the correlation between the length and/or complexity of clause constituents and the amount of new information they convey is not perfect. It is quite possible for long and complex constituents to convey discourse-old information and for short and simple ones to convey discourse-new information, as Ward, Birner and Huddleston (2002: 1371) illustrate with the following examples:

- (9) a. One of his daughters was running a computer store, while the other was still at university, reading law. The one running the computer store earned nearly as much as he did.
 b. There’s a toad in the pool.
 (Ward, Birner and Huddleston 2002: 1371)

Although the underlined NP in the (a)-example has considerable weight, it is discourse-old. Conversely, *a toad* in the (b)-example is new to the discourse – at least,

if this sentence is uttered with the same prosody as *There's a FLY in my soup* – but it is not a heavy constituent.

Secondly, while the examples in (9) do not tell us anything about the effect of weight or familiarity on word order, they show that weight and familiarity are independent parameters. As a consequence, one parameter can be held constant to test the effect of the other parameter. This is exactly the underlying method in Arnold et al.'s (2000) carefully conducted study (whose actual statistical method adopted is more complicated than this text allows me to go into). Testing the individual effects of weight and familiarity on heavy NP shift and on the dative alternation (by means of corpus analyses and an elicitation experiment), Arnold et al. could confidently conclude that both factors significantly *and independently* contribute to end-placement. In other words, they revealed that the tendency of heavy constituents to occur at or towards the end of a clause is not epiphenomenal to (i.e. a side-effect of) their newness, and, vice versa, that the frequent end-placement of discourse-new constituents is not epiphenomenal to their weight.

2.3 Relevance of discourse-familiarity to particle placement

It should come as little surprise that Gries's (2003) study on particle placement supports Arnold et al.'s (2002) finding that discourse-familiarity is independent of weight. Thus, not only can the length (though less clearly the complexity) of the object NP be shown to be a certain, significant influence on its position vis-à-vis the particle (cf. Section 1.2 above), but so can a variety of discourse-functional factors bearing on the discourse-familiarity of the object NP. More in particular, Gries proved the significance of such factors like the distance to the last mention of the object NP, the object NP's 'cohesiveness' to the preceding discourse – that is, the degree to which it is evoked by the previous occurrence of coreferential items or of items that stand in a hyp(er)onymical (superordinate/subordinate) or in a meronymical (part/whole) relation with it – and the number of times the object NP has been mentioned in the preceding discourse (Gries 2003: 72–74; 89–92).

By way of illustration, let us consider (11), the full context of which is cited and discussed by Gries (2003: 72–74). For lack of space, I only provide the actual sentence with the verb-particle combination.

- (10) The lawyers took Valenzuela off to record his testimony.
(BNC corpus, cited and discussed in Gries 2003: 72–74)

While the object noun in this example consists of no fewer than five syllables (*Valen-zu-e-la*) and hence should be placed after the particle on account of its considerable length, its mid-position is by far the most natural placement, since this proper noun refers to a discourse-familiar item, via its frequent anticipation in the form of pronouns (like *he*, *his* etc.) and via an alternative description (as a *kidnapper*) which cannot be mistaken to refer to the same person in the context concerned.

Gries's results also confirm Bock's (1977), Chen's (1986) and Peters' (2001) earlier experiments on the role played by discourse-familiarity in the positioning of the direct object in transitive verb-particle combinations. In turn, Gries's results

have been corroborated by Szmrecsanyi's (2005) findings. All these studies support what Erades (1961: 57), among others, already had intuited, namely that

“[t]he principle governing the place of the objects ... is neither stress nor length nor rhythm, but something quite different: the news value which the idea denoted by the object has in the sentence. Objects denoting ideas that have news value, no matter whether they are nouns or pronouns, long or short, have end-position; those that have no such value come between verb and adverb.” (Erades 1961: 57; cited in Bolinger 1971: 51)

2.4 Interim conclusion and transition

We have seen in Section 1 that unstressed pronouns are placed as close as possible to the verb, in other words, right after it and before the particle. This may not (just) be because unstressed pronouns are extremely light and therefore act as clitics but also because they convey information that is discourse-old or refer to elements that are otherwise familiar to the addressee in the speech situation (e.g. *me*, *you*). Elements with such information status tend to occur early in the sentence, and the compulsory mid-positioning of unstressed pronouns in the verb-particle construction may be seen as a grammaticalization of this tendency.

Conversely, long and heavily modified noun phrases are shifted as far as possible towards the end of the clause, in other words, after the particle, as we also stated in Section 1. Again, this is not (just) because such NPs have much weight but also because they typically refer to entities that are newly introduced into the discourse and because discourse-new constituents generally tend to be put towards the end.

In the next section, we will discuss in considerable detail a factor that is often wrongly collapsed with discourse-familiarity, namely focus structure. Although discourse-new constituents usually do convey the most prominent and pertinent information in the clause (and in this sense contain ‘new’ information), it is nevertheless necessary to keep these two factors apart.

3. Focus structure

As Erades's (1961) quote given at the end of Section 2.3 insinuates, it is sometimes assumed that accent (i.e. stress, intonation) is a decisive factor in the placement of the particle and the object NP. This assumption had already been made by Poutsma (1928) and Kruisinga (1931/1932), but it is still voiced by present-day linguists. For example, Svenonius (1996: 52), commenting on native speakers' preference for the joined construction with indefinite objects (e.g. for *I'll send out FLYers* as opposed to *I'll send FLYers out*), states: “I suggest that intonation is actually what det[er]mines these preferences”. This view is repeated, more recently even, in Buring (2005: 25), where some further references are given (repeated here in his quote): “... object–particle order is preferred with unaccented objects, while particle–object order is preferred with accented objects (Chen, 1986; Dehé, [2000], [2001], 2002; Svenonius, 1996).”

Accented elements in a sentence signal ‘focal’ (or ‘focused’) information. This is the most prominent and pertinent information in a given context, as opposed to the ‘backgrounded’ or ‘presupposed’ information contained in what Ward, Birner and Huddleston (2002: 1370) refer to as the ‘focus-frame’. If speakers prefer to put an accented object after the particle, this is in accordance with a general principle by which focal elements are put at the end of sentences (the principle of end-focus – see, e.g., Quirk et al. 1985: 1356–1357).

Now, a number of oversimplifications are being circulated when it comes to linking up particle placement with the role of sentence focus:

(i) Focal elements correspond to discourse-new elements: “It is natural to place focus pitch on an element which is informationally novel” (Svenonius 1996: 52).

(ii) The nuclear accent of a sentence generally falls at the end: “It is also natural in English for there to be a rising pitch at the right edge of a simple sentence” (Svenonius 1996: 52). Hence, the natural place for a focal element, which is by definition marked by accentuation, is at the end of the sentence, so that the focal accent coincides with the natural sentence accent: “Accented items are usually sentence-finally, which corresponds to the natural order of English where end-focus is reserved for expressions denoting the focal referent of the utterance” (Gries 2003: 39).

(iii) When uttering an active clause containing a transitive phrasal verb, the speaker has the choice to assign the focus to either on the object NP or on the particle. Depending on this simple choice, either the object NP or the particle is put at the end: “Whichever of the two constituents (the direct object or the particle) is to be emphasized, it will be positioned sentence-finally” (Gries 2003: 52).

In the following three sections, I will show that these at first sight straightforward rules overlook a number of complications.

3.1 Focal elements need not be discourse-new

Quirk et al.’s (1985: 1356–1357) principle of end-focus is defined as “the linear presentation from low to high information value”, where information value seems to be further formulated and illustrated in terms of discourse-familiarity: elements with low information value are those that are known from the preceding discourse (‘given’) and that can accordingly be pronominalized, while elements with high information value are unknown (‘new’) and require explicit expression with full lexical material (p. 1430–1431). The link between the notion of focus and that of discourse-familiarity is also established by Dehé (2002):

“The focused part of an utterance cannot be taken for granted at a corresponding time of utterance. It is not predictable and cannot be inferred/recovered from the preceding context or discourse situation. It is typically new information which has not been mentioned before.” (Dehé 2002: 105)

But note that the use of *typically* in the last sentence is not an unwarranted hedge, since focal information is often but not necessarily discourse-new information. Consider the following short question-answer pair:

- (11) Did you prefer the movie or the book? — I preferred the book.

The focus in the response sentence is *the book*. It is intonationally as well as informationally the most prominent element in the response. In a sense, it provides new information, since prior to the response, the first speaker did not yet know the specific value of the variable x in the focus-frame ‘I (= second speaker) preferred x ’. Notwithstanding its status as focus and as ‘new information’, though, the word *faith* in this second sentence is not *discourse*-new, since it has been mentioned in the preceding question. Thus, focus structure and discourse-familiarity are distinct concepts (Ward, Birner and Huddleston 2002: 1370).

3.2 Focal elements need not be sentence-final

The end of the sentence is generally acknowledged to be the prime focus position: “The focus typically appears at or towards the end of the clause” (Ward, Birner and Huddleston 2002: 1372). Granting this, we should not disregard the possibility of assigning any word or constituent of a clause the status of focus depending on the surrounding discourse. This can be illustrated with the sentence in (12), whose focus is made to vary with the contextual continuations given in square brackets in (13):

- (12) Some local guys were sitting at a table.
- (13) a. SOME local guys were sitting at a table. [Not ALL of the local guys were.]
 b. Some LOCAL guys were sitting at a table. [Those guys weren’t TOURISTS.]
 c. Some local GUYS were sitting at a table. [There weren’t any local GIRLS among them.]
 d. Some local guys WERE sitting at a table. [Don’t believe those who say it wasn’t true.]⁵
 e. Some local guys were SITTING at a table. [I didn’t say they were SPITTING at a table.]
 f. Some local guys were sitting AT a table. [Not ON it.]
 g. Some local guys were sitting at A table. [Not THE table, but an ordinary table.]
 h. Some local guys were sitting at a TABLE. [Not at the BAR.]

The sentences in (13) provide illustrations of *contrastive focus*, a special case of *marked focus* (Quirk et al. 1985: 1365).⁶

⁵ In this case, the focal element (*were*) is not contrasted explicitly with a single corresponding word in the continuation. Insofar as the function of the operator (i.e. the finite verb or the first auxiliary) is to turn the propositional content of a clause into an actual assertion, putting emphasis on it has the effect of contrasting this asserting function with the implicit or explicit negation of the clause’s propositional content.

⁶ Strictly speaking, sentence (13h) is not a case of marked focus, since the focal element does appear sentence-finally. However, it is a case of contrastive focus all the same. As we will see in section 3.3, sentence (13h), with the nuclear accent on *table*, can also be interpreted in a non-contrastive way, as when it appears in the following contexts:

This kind of focus being available for any element in any clause, it can also be applied, naturally, to the direct object NP in active clauses with a transitive verb-particle combination. Thus, it is perfectly possible for an object NP to occur in the split ordering and bear a marked focus accent. In other words, it need not be the case, as Diessel and Tomasello (2005: 91) write, that “[i]f the direct object carries stress accent the particle [precedes] it, even if the object is pronominal”, as in

- (14) Pick up HIM (not her).
(Diessel and Tomassello 2005: 91)

On the one hand, it is true that a pronominal object cannot occur sentence-finally (cf. again example (2a) in Section 1.1) unless it is accented. Here is a similar, authentic, example:

- (15) Of all the dogs in the shelter, my Master picked out me! (www)

In this example, the narrating dog (referred to by the pronominal object *me*) puts itself in contrast with all the other dogs in the shelter, and hence, *me* is contrastively focused. On the other hand, it is by no means obligatory to put a pronominal object, nor indeed any object NP (pronominal or not), at the end if it carries contrastive accent. This is illustrated by the following authentic examples (small capitals added):

- (16) a. Well, it was ME who finally asked HIM out instead of the other way around. (www)
b. ...quitting cold turkey is not an option. The withdraw[a] not only stresses the BODY out, but stresses the BABY out as well. (www)

The occurrence of a contrastively accented object in the split ordering is possible, as Dehé (2002) remarks, because “contrastive focus and the corresponding accent placement is not bound to a certain position. It can be assigned to every constituent in the sentence, and can therefore be realized at every structural position” (Dehé 2002: 172).

Bolinger (1971: 51), too, discusses the possibility of mid-position of accented objects, giving examples like the following:

- (17) a. Let’s take our friénds over.
b. They shot the whole pláce up.
(Bolinger 1971: 51)

It is important to note that Bolinger’s examples above could easily be uttered in circumstances in which the object, though accented, is not contrasted with another potential object in the context. This means that contrastive opposition is not a pre-

-
- (i) a. [What about the local guys? —] Some local guys were sitting at a TABLE.
b. [I entered the door to the back room.] Some local guys were sitting at a TABLE.
In these cases the nuclear accent is also sentence-finally, as in (13), but the informational unit it marks as focus is larger: the entire VP in (ia) or even the entire sentence in (ib). The only prosodic difference with (13) is that *table* is somewhat less heavily accented.

requisite for the occurrence of accented objects in the split ordering, a point to which we will return below, in Section 3.3 and, in more detail, in Section 6.

One final remark remains to be made here. The occurrence of an accented object in the split ordering may be thought to be in violation of the unmarked placement of the nuclear accent, which is sentence-final. Remember, though, our quote of Ward, Birner and Huddleston (2002: 1372) that “[t]he focus typically appears at *or towards* the end of the clause” (emphasis added). More specifically, the nuclear sentence accent characteristically falls on “the (stressed syllable of the) last open-class lexical item of the last clause element” (Quirk et al. 1985: 1357). So, given that particles are closed-class elements, it seems to me that examples like (17a-b) are in fact perfectly in keeping with this general prosodic principle. Note, for example, that sentence-final prepositions are also usually left unaccented (e.g. *What are you TALKing about?*)⁷.

3.3 Other options than focus on either object or particle

In view of the fact that the particle placement alternation concerns the position of two elements relative to each other – the direct object and the particle – it is tempting to reduce the issue of the prosodic pattern of the verb phrase to focal accentuation on either of these two elements – see Van Dongen (1919: 331ff.) and Gries (2003: 24–25) for an early and recent example, respectively. Gries uses the following sets of question-answer pairs to illustrate the positional preferences (I underline the focused part in the answers):

- (18) a. What did he pick up? — He picked up the BOOK.
 b. Where did he bring the book? — He brought the book BACK.
 (after Gries 2003: 25)

Dehé (2002: 132) correctly observes that the domain of the focus can vary in size. That is, the focused part need not be restricted to the very word or smallest constituent containing the accented syllable. So, we could also have the following question-answer pairs.

- (19) a. What did he do? — He picked up the BOOK.
 b. What happened? — He picked up the BOOK.
 (after Dehé 2002: 132)

Thus, in addition to the so-called ‘minimal focus’ on the object NP or on the particle, exemplified respectively in (18a) and (18b), we can have ‘non-minimal focus’ on the entire predicate and ‘maximal’ focus on the entire sentence, as in (19a) and (19b), respectively. Furthermore, Dehé considers the case in which the predicate minus the object NP is within the focus domain:

⁷ Admittedly, particles do get sentence-final accentuation in intransitive constructions (compare, e.g., *Please come IN!* vs. **Please COME in!*), despite their status as closed-class items.

- (20) What did he do with the book? — He picked the book UP.
(after Dehé 2002: 132)

According to Dehé, the focal scenario with a backgrounded (presupposed) object NP is the only one in which the split ordering is, and has to be, used.^{8,9} Dehé (2002) does not go into a case like (18b), where the focus is on the particle, but since such a sentence also has a backgrounded object NP, its obligatory use of the split ordering conforms to her claim. Dehé (2002) acknowledges, though, that the split ordering can also be used if the object NP is not backgrounded but (on the contrary) bears contrastive focus accent, as we remarked in Section 3.2. The joined ordering, still according to Dehé, is the default one, to be selected in all cases in which the object NP constitutes or is a part of the focus domain without being contrastively accented, as in (18a), (19a) and (19b).

This is not accurate, however. Consider again Bolinger's (1971: 51) examples given in Section 3.2 above (in (17)), repeated here in (21):

- (21) a. Let's take our friends over.
b. They shot the whole place up.
(Bolinger 1971: 51)

Here, the object NP carries (presumably non-contrastive) accent but nonetheless occurs in the split ordering. I will come back to such examples in Section 6.

The examples given so far in this section still do not exhaust all the focal possibilities. There are, in fact, four more cases, logically speaking. First, there can be minimal focus on the verb itself, namely when it is contrasted with another verb combining with the same particle:

- (22) a. Did he pick the book up? — No, it is more accurate to say that he HEAVED the book up. It was a very heavy book, you know.
b. He did not WASH any of the dust off. He BRUSHED it off... (www)

⁸ It is not clear whether the split ordering is chosen in (20) because this ordering allows a part of the focus domain (namely, the particle) to appear in the canonical position for focal elements (cf. Gries 2003: 24–25, who refers to Halliday 1985: 185), or because this ordering simply allows a discourse-old constituent (namely, the object NP) to stay in non-final position (cf. section 2). I see no way of finding out whether the first reason is an independent aspect of the explanation, since I cannot think of an example in which the object NP is backgrounded (i.e. not a part of the focus domain) without also being discourse-old. (But note that, conversely, discourse-old constituents need not be backgrounded; cf. section 3.1.) Of course, backgroundedness and discourse-oldness may be independent factors reinforcing each other in (20).

⁹ It is possible to use the joined ordering if the object NP is not actually backgrounded but nonetheless considered to be less important information than the action expressed by the verb-particle combination. In that case, the nuclear accent is placed on the particle (cf. Bolinger 1971: 54). For example, consider the parenthetical clause in the sentence below:

(i) When you figure out which city you're in, click on the Globulator icon (who thinks up these names?) and then click on the world map to select the correct city. (BNC)

In this case, the particle is preferably put in end-position (compare: *Did he pick up the book?* — *?No, he truly HEAVED up the book*). I suppose the reason for this is that a particle in the joined ordering is always accented to some degree. Accenting the verb and its immediately following particle produces a violation of the prosodic principle discussed by Gussenhoven (2004: 255-256) as the ‘NoClash’ constraint. To avoid two accents in adjacent positions, then, the speaker can either de-accent the particle in the joined ordering, which results in an unusual accent pattern for verb-particle combinations, or she can select the split ordering, which is often used for de-accented particles anyway (cf. again Bolinger’s examples above). In short, the split ordering allows the accent on the verb to stand out.¹⁰

Second, we may actually be dealing with two independent foci, one on the object NP and another on the particle. This possibility only arises with verbs that combine with more than one particle in a semantically similar way. (We therefore cannot use *pick up*: while we also have *pick out*, it is clear that the contribution of *pick* is not constant in these combinations.) Here is an example:

- (23) The next steps in the sequence must turn the RED and AMBER lights OFF before turning the GREEN light ON. (www)

Here again, the split ordering is preferred, but for a different reason. A particle can only be contrasted with another particle if it makes an independent semantic contribution – independent of the verb, that is. This means, in effect, that it has some predicative power (over the object NP) of its own: in the example above, for example, the result of the actions involved is that the relevant lamps *are* off or on. Now, when both the object NP and the particle compete for end-position (which is the neutral position for focal elements), the particle will be preferred in this position, so that object and particle align themselves as in the grammatically very general subject-predicate construction.^{11, 12} The final placement of the particle in (18b) may also be partly explained as inheriting the predicate-final ordering of clauses.

¹⁰ Note that there are no adjacently accented syllables if the inflected verb ends in an unstressed syllable, as in *He LIFTed up the book*.

¹¹ I would not go so far as to claim, though, that the object NP and the particle form a true ‘small clause’ here, as we do have in (i) below:

- (i) [_{sc} *The red and amber lights off*] is a necessary starting situation for turning the green light on.

See Farrell (2005) for an extensive critique against the proposal, often made in the generative literature, that the object and the particle in a case like *turn the green light on* also form such a small clause.

¹² We also find examples like the following, where the joined ordering is used:

- (i) When he was ready to project a transparency, he turned OFF the LIGHTS before turning ON the PROJECTOR and ended up tripping over some electrical cords in the dark. (www)

It could be argued that in this example, the foci are not *off* vs. *on* (and *the lights* vs. *the projector*) but rather, the full verb-particle combinations *turn on* vs. *turn off* (and their respective objects).

Some evidence that the verb is also focused on is provided by the impossibility to gap it. Naturally, a speaker would never omit an element that is focused. Compare:

- (ii) a. He turned OFF the LIGHTS and turned ON the PROJECTOR.
b. *He turned OFF the LIGHTS and Ø ON the PROJECTOR.

Third, it may be the case that the verb and the object NP are two independent foci. For example:

- (24) Moody Max was in a particularly destructive temper and decided that whatever made noise had to be turned off with violence. He SMASHED the TV off and SHOT the RADio off.

This situation is so rare that I do not have any firm intuitions on the preferred ordering. On the one hand, the joined ordering may be preferred because it keeps the focal elements, and hence their accented syllables, apart as far as possible. On the other hand, the particle in the verb-particle combination is always slightly accented in pre-object position, and its accent then potentially clashes both with the accent on the preceding verb and with the accent on the following noun. Keeping the particle de-accented in end-position resolves this clash.

Fourth, the final possibility is the trivial one in which neither the verb, nor the object NP nor again the particle falls within the focus domain:

- (25) How did he pick the book up? — He picked the book up with both HANDS.

In this case, both orderings are in principle possible, but the ordering preferred is the one used in the question, as we will see in the next section (Section 4). Thus, if the question were *How did he pick up the book?*, then the answer would be more likely to repeat the joined ordering: *He picked up the book with both hands*. Although pleading against this ordering would be the discourse-old status of the object NP, this violation would be mitigated by the fact that the object-old NP would not appear in the canonical position for focal elements, which would be occupied by another element.

3.4 Summary of Section 3

In Table 1 below I summarize the different possibilities of assigning focal accentuation and the impact this may or may not have on the choice of the joined or the split construction.

By contrast, if only the particle and the object NP are focused, the verb itself can be gapped:

- (iii) a. He turned the LIGHTS OFF and turned the projector ON.
 b. He turned the LIGHTS OFF and \emptyset the projector ON.

Table 1. The two orderings by focal element(s)

	Joined (V – Prt – NP)	Split (V – Prt – NP)
V	(✓) ●* NOCLASH	✓ e.g. (22a-b)
V, Prt	× ●* OLDOBJ-LEFT ●* FOCUS-LAST	✓ e.g. (20)
V, Prt, NP	✓ e.g. (19a-b)	✓ e.g. (21a-b)
V, NP	(✓) ●* NOCLASH	(✓) ●* NOCLASH e.g. (24)
Prt	× ●* OLDOBJ-LEFT ●* FOCUS-LAST ●* SUBJ-PRED	✓ e.g. (18b)
Prt, NP	× ●* SUBJ-PRED	✓ e.g. (23a-b)
NP	✓ e.g. (18a)	✓ ●* FOCUS-LAST e.g. (16a-b)
other	✓ ●* OLDOBJ-LEFT	✓ e.g. (25)

✓ = ‘the ordering on top of this symbol is allowed under the focus structure on the left’

(✓) = ‘the ordering on top is marginally allowed under the focus structure on the left’

× = ‘the ordering on top is not allowed under the focus structure on the left’

●* = ‘the ordering on top violates the following principle under the focus structure on the left: ...’

FOCUS-LAST: The focus of a clause appears at the end of that clause.

NOCLASH: Accented elements should not be in adjacent positions.

SUBJ-PRED: When aligning a subject and its predicate, put the subject first.

OLDOBJ-LEFT: A discourse-old direct object NP is leftmost in the post-verbal field.

The table above also indicates how the different focus assignments may interact with some general prosodic and ordering principles to rule out one or the other particle placement construction. Note that selecting the split ordering generally yields least violations.

It is important to remember from this section on focus structure that focal NPs can occur in mid-position. In Section 6, we will look in more detail at sentences in which this is the case. First, however, we will briefly report on a couple of studies into how the choice for the joined or the split construction is influenced by previous occurrences of one of these orderings (Section 4) and discuss the impact of factors like register and region (Section 5).

4 Previous occurrence of one ordering or the other

It has been known for some time that speakers tend to reuse syntactic patterns that they have come across (either produced themselves or heard) in the preceding dis-

course. This tendency is known as ‘syntactic priming’ or ‘syntactic persistence’ – see Levelt and Kelter (1982), Weiner and Labov (1983) and Bock (1986) for some early studies. In this short section I confine myself to summing up the findings of two recent studies that discuss syntactic priming in relation with particle placement: Gries (2005) and Szmrecsanyi (2005).

(i) There is a general and strong tendency for speakers to stick to the same word order choice of the transitive verb-particle construction. That is, if they have encountered an instance of the joined construction in the preceding linguistic context, they will tend to repeat this construction when they subsequently utter another instance of the transitive verb-particle construction; likewise if they have first encountered an instance of the split construction, then this will tend to be the word order that they will use again for a next use of a transitive phrasal verb.

(ii) This persistence effect is somewhat stronger for a prior occurrence of a split ordering instance than for a prior occurrence of an instance of the joined ordering.

(iii) In written discourse, there is a stronger persistence effect between instances involving the same phrasal verb lemma (as in *he'd fill all their bags up ... he wouldn't fill our bags up*) than between instances involving different phrasal verb lemmas.

(iv) In dialogues, the second speaker often copies the word order along with the exact inflectional form and the lemma of the transitive phrasal verb used by the first speaker.

(v) For specific verb-particle combinations with a preference for one word order manifestation or the other (cf. Section 1.4), there is only a marked persistence effect for the order they prefer anyhow.

(vi) The general priming effect decreases somewhat as the distance between the two instances increases.

(vii) Perhaps related to the previously-mentioned persistence factor, the longer the sentence in which the previous instance occurs, the weaker the persistence effect on the subsequent instance.

5 Llectal factors: Register and region

This section looks into the wider context of the sentence in which a transitive verb-particle occurs: not just the preceding sentence(s) in the discourse but the entire setting in which the discourse is situated. Are we dealing with spoken or written discourse? Which regional variety of English does the speaker use? Which social background does the speaker have? Is the speaker a man or a woman? Such potential influences on linguistic variation can be grouped under what Geeraerts (2005) calls ‘lectal’ factors, a cover term for influences related to the speaker’s dialect, regiolect, sociolect, etc. Below I single out two such factors that are known to exert some influence on particle placement.

5.1 Written versus spoken discourse

As Gries (2003: 97; 2005: 381) and Cappelle (2006) have shown by means of research into corpora containing both spoken and written material, there is a signifi-

cant preference for the split ordering in spoken discourse and a significant preference for the joined ordering in written discourse. Table 2 below presents the data for the British Component of the International Corpus of English (ICE-GB) given in Cappelle (2006):

Table 2. The two orderings by medium in ICE-GB

	Spoken	Written
Joined (V – Prt – NP)	731 ($\pm 42\%$)	543 ($\pm 71\%$)
Split (V – NP – Prt)	917 ($\pm 58\%$)	227 ($\pm 29\%$)
Column totals	1648 (100%)	770 (100%)

According to Bolinger (1971: 57, fn. 8), the split ordering is rather informal (“at the familiar end of the speech-level or register scale”). Hence, language users may feel more restrained to select this word order option in written discourse than they do in spoken discourse. Written language is, after all, much more of an ‘edited’ medium, allowing users to replace an option they might naturally have selected in spoken discourse by an option that is a little more formal. This inhibition against using an all too informal construction may also account, still according to Bolinger, for the fact that the split ordering occurred even more rarely in pre-twentieth century literature, which was relatively more censured than current literature.

Other reasons why the split ordering is used less often in written language will be discussed in Section 9.

5.2 Regional variation

Szmrecsanyi (2005: 133) observes that there is noticeable variation in ordering preferences among British English dialects. If the dialect of England’s Southeast is to be considered as the standard, then one finds the split ordering to be significantly disfavored in the Hebrides and, to a lesser extent, in the Midlands, while it is used more frequently in the North of England than it is elsewhere. This is an interesting finding, especially since no other researcher (that I know of) has ever considered the possibility that particle placement is subject to dialectal variation.

It would be worthwhile to investigate whether there are also differences in the choice of ordering between speakers of more largely-defined varieties of English: British English, American English, Australian/New-Zealand English, and so on. There is some indication that there might be. Taking a look at Lohse et al.’s (2004: 243) table of the distribution of split to joined orderings by corpus (adapted as table 3), I notice that their written British English material, taken from the Lancaster-Oslo/Bergen corpus, contains a higher percentage of split orderings than their combined material from corpora of American English, more than half of which even consists of phone conversations (the Switchboard corpus). This difference between British English and American English in their dataset reaches statistical significance ($\chi^2(1) = 11.81; p \leq 0.001$).

Table 3. The two orderings by corpus of regional variety of English (adapted from Lohse et al. 2004: 243)

	British	American		
	LOB corpus (written)	Brown corpus	Wall Street Journal corpus	Switchboard corpus
Joined (V – Prt – NP)	154 (\pm 65%)	324 (\pm 79%)	248 (\pm 86%)	521 (\pm 69%)
		Written American 572 (\pm 82%)		
		Written + spoken American 1093 (\pm 76%)		
Split (V – NP – Prt)	83 (\pm 35%)	86 (\pm 21%)	39 (\pm 14%)	229 (\pm 31%)
		Written American 125 (\pm 18%)		
		Written + spoken American 354 (\pm 24%)		
Column totals	237 (100%)	410 (100%)	86 (100%)	750 (100%)
		Written American 697 (100%)		
		Written + spoken American 1447 (100%)		

6 Expectedness

6.1 ‘Context’: A fluid concept of linguistic and extra-linguistic senses

Up to now we have dealt with cues to particle placement provided by the linguistic context. To recapitulate, in Section 2 we considered the discourse-familiarity of the object NP, which is a matter of whether or not it has been mentioned yet – or

evoked by means of semantically closely related terms – in the preceding stretch of linguistic discourse. In Section 3, we discussed the focus structure of the clause, which is a function of whether one or more of its elements (specifically, the verb, the particle and/or the object NP) provides a specific ‘value’ (a fill-in) for a ‘variable’. Although the nuclear element typically lies on a word at or towards the right sentence-boundary, it is again only on the basis of the larger context or the speech situation in which the sentence is used that we can find out whether it is the very word carrying the accented syllable that is the focus or a larger phrasal unit containing that word, possibly even the complete sentence. In Section 4, we had a look at the impact of the use of one word order variant of the transitive phrasal verb (the joined or the split order) on a subsequent use of an instance of the transitive phrasal verb. Here, too, it is obvious that the form of the sentence is partly determined by the context, in the sense of the preceding discourse. The previous section (Section 5) looked at the embedding of the clause in its lectal context: its medium (spoken vs. written) and its regional language variety.

In this section, I deal with cues to the ordering variation at hand that come from ‘context’ in a wider sense than we have used so far: not so much the sentence’s linguistic or deictic embedding, but the entire body of expectations the discourse participants bring to a discourse situation (whether this discourse is spoken or written). These expectations have been shaped by the domestic, societal and cultural environment in which they have been raised or adopted. Thus, when I speak of contextual cues to particle placement in this section, I should be understood as referring to the way the speaker/writer and hearer/reader draw from their shared ‘knowledge of the world’, or, more precisely, the knowledge of this kind that the speaker/writer *assumes* to share with the hearer/reader.

It should be clear, however, that no all too strict distinction can be made between linguistic and extra-linguistic context. For example, to assess whether a direct object is discourse-old, it does not suffice to look for a verbatim occurrence of it in the preceding discourse. Rather, one must look for an item that is coreferential with the object, or that stands in some sort of taxonomic relation with it. Thus, one can only establish a coreferentiality relation in the discourse between, say, *...Doris...* and *...the girl...* if one knows that *Doris* is a girl’s name, which is an extra-linguistic piece of knowledge. Similarly, some world knowledge is required to perceive the hierarchical and part-whole relation, respectively, between discourse elements like *...magpies...* and *...the birds...*, and between *...black coffee...* and *...the taste...* in the following example:

- (26) I only like black coffee when I’ve ground it myself and I’ve chosen the beans, otherwise you really need milk to take the taste away. (www)

6.2 An example: *Putting the kettle on*

The following lengthy example will help to make clear what I meant, in the introduction to this section (Section 6.1), by expectations based on the discourse-participants’ “domestic, societal and cultural environment”:

- (27) The kettle is the one thing we all have in common on these islands. Other than us lot, hardly anybody else in the world has them. According to the story I was told at school, it was watching a boiling kettle that gave Stevenson the idea of the steam engine. Without the steam engine, this country would not have been first off the starting block into the industrial revolution. ... The kettle may have evolved over the years since Stevenson but every home in the land has one, from Buckingham Palace to the lowliest of doss houses. ... Get invited into any home and the first thing they will say is “I’ll just put the kettle on.” (www)

The boiling kettle is such a staple fixture in every British household that it needs no prior introduction in the discourse to be comfortable in mid-position. In the standard phrase *I’ll (just) put the kettle on* (or *Shall I put the kettle on?*), *the kettle* is typically discourse-old (in that it is probably not mentioned in the preceding discourse), but this lack of discourse-familiarity is amply compensated for by its high *expectedness* value, since its presence in a British home is fully taken for granted nation-wide, as the example above rightly claims.

In fact, it could be argued that discourse-familiarity (discussed in Section 2) is a special case of expectedness. After all, the mention of an NP (or of a superordinate, subordinate, or meronymical term) creates some expectation as to its reappearance. Put differently and perhaps more accurately, prior mention of an NP renders its referent mentally more accessible. Familiar items like a kettle in a British home are mentally accessible without having to be linguistically mentioned or evoked first, but there is a point in which mental accessibility is the factor that licenses the mid-positioning of discourse-familiar and ‘world’-familiar objects alike.

The main reason why I have nevertheless discussed discourse-familiarity in a separate section is that it is a concept that is far easier to grasp and accordingly to quantify (even taking into account the complications mentioned in above in Section 6.1) than is expectedness on the basis of world knowledge. Still, we can gain a better understanding of world knowledge if we think of it in terms of *frame-semantic* knowledge, in Fillmore’s sense. To use our kettle example again, paying a visit to someone’s home in Britain can be conceived as a complex structure of related entities and events, among others the owner (or occupier) of the house offering the visitor something to drink, usually a nice *cuppa*. Since the process of making tea involves the use of a boiling kettle, and perhaps because Britons perceive some impoliteness in forcing a visitor straightaway to confirm that *s/he* would like to drink some tea, they offer to put the kettle on. In other words, the host’s suggestion to put the kettle on is a part of the ‘visiting someone’s home in Britain’ frame.

6.3 Bolinger (1971): Frame semantics *avant la lettre*

Without being explicitly couched in frame-semantic terms, some observations made by Bolinger (1971: 55-57) are clearly consonant with such a framework. He associates the split ordering with “the ordinariness of certain actions and the familiarity of certain objects”. That is, “[i]f the noun retains the accent but the parti-

cle is put after it, the sensation most often seems to be just that of what is familiar or usual under the circumstances". Here is one of his examples:

- (28) It's almost ten o'clock. Put your nightie on, now, and run up to bed.
(Bolinger 1971: 57)

Here, a nightie, the action of putting it on, and the temporal location at 10 p.m. are apparently part of the bed-time routine of the hearer.¹³ A quite similar example is the following:

- (29) Do you want to squeeze some paste on? (father to young child, during a conversation overheard in the bathroom of a camping in the UK)

Again, the speaker assumes the hearer's familiarity with the tooth-brushing frame, in which a toothpaste and a toothbrush are fixed entities, and the action of squeezing some of the former on the latter is a fixed action.

Moving beyond this anecdotal evidence, let us consider a simple corpus investigation. I entered the following two search patterns in the British National Corpus (using Mark Davies' VIEW interface):¹⁴

- (30) a. put down [possessive determiner] [noun]
b. put [possessive determiner] [noun] down

The predictions were that instances of the joined ordering, returned by the query in (30a), would contain fewer nouns whose referent is expected than instances of the split ordering, returned by the query in (30b). The results of the 50 most frequent results for these two queries are given in (31) and (32), respectively.¹⁵ By the way, the query with the joined ordering yielded (only) 182 matches, compared to 344 matches for the query with the split ordering.

- (31) 1. his glass (15 instances); 2. her cup (12); 3. his knife (8); 4. his cup (5); 5. her coffee (5); 6. her glass (4); 7. her knife (4); 8. his book (4); 9. his pen (4); 10. his paper (3); 11. my pen (3); 12. her book (3); 13. her pen (3); 14. her shopping (2); 15. her trowel (2); 16. her wine (2); 17. her coffee-cup (2); 18. her basket (2); 19. her cloth (2); 20. his briefcase (2); 21. his coffee-cup; 22. his spade (2); 23. her fork (2); 24. his newspaper (2); 25. his notebook (1); 26. his notes (1); 27. his pint (1); 28. his pitchfork (1); 29. his pocket (1); 30. his scalpel (1); 31. his scone (1); 32. my scythe (1); 33. my shopping (1); 34.

¹³ This example also shows that the knowledge of a frame need not be shared by all members of a large linguistic community: the frame invoked in (28) – the '(older) child going to bed' frame – is part of the shared world knowledge of a single family only.

¹⁴ <http://view.byu.edu>

¹⁵ Some of the determiner-noun sequences in (31) show only a part of the full object NP. For example, among the instances of *her cup*, we may have (and actually do have) an example like *her cup of coffee*. Similarly, a result like *her shopping* may mask the actual object NP, which is (in one of the two cases) *her shopping bag*, and *his pocket* is part of the NP *his pocket Bible*. However, this minor problem does not render our general findings suspicious in any way.

my suit-case (1); 35. their bibles (1); 36. their bowls (1); 37. their clues (1); 38. their deposits (1); 39. their guns (1); 40. their knives (1); 41. their names (1); 42. their pens (1); 43. their porridge (1); 44. their stakes (1); 45. your bag (1); 46. your case (1); 47. your drink (1); 48. your guns (1); 49. your handbags (1); 50. your knives (1)

- (32) 1. your foot (26 instances); 2. your name (15); 3. his foot (15); 4. her head (14); 5. her foot (14); 6. his head (14); 7. my foot (11); 8. my name (11); 9. your head (10); 10 my head (9); 11. her cup (9); 12. their foot (8); 13. your hands (7); 14. your phone (6); 15. his glass (6); 16. her glass (5); 17. his cup (5); 18. your feet (5); 19. their names (5); 20. your hand (4); 21 your handset (4); 22. their name (3); 23. his hand (3); 24. her bag (3); 25. her name (3); 26. his name (3); 27. his money (2); 28. his mug (2); 29. his phone (2); 30. his paper (2); 31. his things (2); 32. its head (2); 33. her pen (2); 34. her basket (2); 35. her feet (2); 36. his goblet (2); 37. her hand (2); 38. my hand (2); 39. your age (2); 40. your bag (2); 41. your leg (2); 42. your pen (2); 43. your mallet (1); 44. your papers (1); 45. your plate (1); 46. your things (1); 47. your welly (1). 48. your glass (1); 49. your keys (1); 50. your glass (1)

Even without considering the context of all the corpus hits, a pattern emerges.¹⁶ Each of the ten most frequently occurring nouns in the split pattern refers to a body part of whomever the possessive determiner refers to. Body parts, like a head, feet, hands, legs, etc. are (for all intents and purposes) inalienable possessions and therefore, they are expected entities. That somebody has a head, for example, is taken for granted. It is an entity that is an inherent part of the frame invoked by the entity to which the possessive determiner refers. Thus, as soon as a ‘person’ frame is evoked – this happens, for instance, as soon as the hearer makes a mental picture of the subject referent in *She put her head down* – these body parts are automatically also activated to some degree. The same goes for the noun *name*: people always come with a name, so this entity is also co-activated along with the person referred to by the subject and/or possessive determiner. Thus, body parts and more abstract entities like somebody’s *name* or *age* are expected on the basis of the discourse participants’ familiarity with the ‘person’ frame (which in turn is inevitably evoked by the possessive pronoun and/or a coreferential NP in the preceding discourse).

Interestingly, the first noun referring to an object not evoked by the ‘person’ frame (the noun *cup*) only comes in at the 11th position in the ranking for the split ordering. Conversely, there are no nouns referring to body parts among the fifty most frequent hits in the joined ordering and the first noun referring to an inalienable possession, *names*, only comes in at the 41st position in the ranking. These results go some way to supporting Bolinger’s (1971: 55) above-mentioned intuition.

¹⁶ I am ignoring here an observation that is perhaps more conspicuous, namely that out of the 50 most frequently used NPs in the joined ordering, 15 contain two-syllable nouns and another 4 even 3-syllable nouns, while there are only 6 two-syllable nouns among the 50 most frequently objects in the split ordering. The correlation between the length of the object NP and ordering preferences was dealt with in section 2 above.

6.4 Not just the expectedness of the object

We should emphasize here that Bolinger (1971) also considers the split ordering to be eminently suited to suggest that the verbal action, and not just the direct object referent, is familiar or expected in a given situation. Sometimes, the latter more or less naturally implies the former. Thus, to use one of his examples, *cattle* entails the action of *driving*, which partly explains why the use of the split ordering is acceptable in the response below.

- (33) Where's Joe? — He's driving the *cá*ttle in. He'll be along in a minute.
(Bolinger 1971: 56)

Note also that the object NP here can, on the one hand, be discourse-new but may, on the other hand, not be completely unpredictable to the addressee (assuming that s/he knows Joe and knows he is a cattle-driver).

Similar cases in which the split ordering can be used despite the object NP being discourse-new and falling within the focus domain are *hanging the {WASHing / LAUNdry} out*, *picking the KIDS up*, *dropping the KIDS off*, etc. Not only are the verbal actions expressed in these phrases notionally closely associated with their respective objects, but the events in question may also take place regularly (e.g. as part of a daily or weekly routine) or as a matter of course. The use of the split ordering, while by no means obligatory in such cases, may underscore one or both of these ideas:

- (34) Molly finds that she doesn't need the car with her all the time, as she no longer has to pick the kids up every day and now she is able to go to her computer class in the bus. (www)

Ignoring the political correctness issues of the following example, we may invoke the notion of ordinariness to account for its shift from one ordering to the other for what is otherwise one and the same phrase (which I have underlined here for ease of identification; the italics for emphasis are in the original):

- (35) Something happened the other day that made me feel uneasy. Yet I shouldn't have felt that way!
My wife had left for work and I was hanging the washing out to dry. A neighbour from down the way was in his backyard doing the same. 'Good day for drying', he called. 'Let's hope the rain stays away.'
I had to think about what made me uneasy. Then it hit me. *Two men hanging out the washing!*
When I was a kid that would never have happened. That was women's work, after all! (www)

The first occurrence of *hang out + the washing* is meant to sound as unsuspecting as possible, which may explain the use of the split ordering. On its second occurrence, *hang out + the washing* is used in the joined ordering, even though the direct object is discourse-old (and might therefore have been put in mid-position). In this second instance, the author wants to draw the attention to the extra-ordinariness of

the situation. One likely reason why he uses the joined ordering here is that it permits him to put an accent on the particle, thus marking almost each word with a separate accent (*Twó mén hánging óut the wáshing!*) rather than giving *hanging out* + *the washing* one overarching accent (on *washing*). This way, form and (pragmatic) content match up nicely.

Needless to say, the examples given in this section are merely suggestive. The precise role played by the frame-semantic expectedness of the verbal action (given the object) and/or the ordinariness of the entire event (as a Gestalt made up by the verbal action and the object) in particle placement is something that needs to be investigated in much more detail.

7 Stativity as a contextual factor?

A little-mentioned semantic constraint on the particle placement alternation (but see Fraser 1976: 11; Huddleston 2002: 286, fn. 49; Cappelle 2005: 220) has to do with the aspectual nature of the verb: dynamic verbs allow a spatial particle to precede as well as follow the object NP, while stative verbs only allow a spatial particle to follow the object NP. Compare, for example:

- (36) a. He put {on his socks / his socks on}.
 b. He kept {*on his socks / his socks on}.
- (37) a. I pulled {up the blinds / the blinds up}.
 b. I left {*up the blinds / the blinds up}.

In what way is this constraint relevant to our discussion on the role of context on particle placement? To answer this question, let us consider some examples with *prima facie* stative verbs that do allow the particle to precede the object:

- (38) a. The nail holds up the picture.
 b. The bricks keep down the sheet.
 c. The load weighs down the car.
 (McIntyre 2003)

Just because there is no overt motion involved in these examples, this does not mean that they describe stative events. On the contrary, on the basis of encyclopedic knowledge, especially the laws of mechanics, we know that holding up a picture requires a sustained impediment to the force of gravity. Similarly, keeping down a sheet which tends to be blown upwards requires the constant counteracting input of a downward-pushing force, by releasing the brick's potential energy. And weighing down a car involves the sustained application of the load's weight to work against the spring force of the car's suspension system. So, while the above clauses depict steady situations, they also involve energy to maintain that steadiness. Important to our concerns, it is the context in which the verb is used which may reveal this 'hidden' dynamic aspect, and the particle is part of that context. Thus, while keeping one's socks *on* does not require energy – rather, energy is

required to take them off – keeping them *up* may prove to be dynamic, in the way described above:

- (39) ...a pair of those old fashioned garters that men wore to keep up their socks... (www)

In short, the requirement that the verb not be stative for the two orderings to be allowed is context-dependent: the verb taken by itself does not tell us whether this requirement is met; we need to consider the context in which the verb is used.

8 Literalness as a contextual factor?

As is well known, verb-particle combinations differ in the degree to which their component parts independently contribute to the meaning of the composite whole, some combinations being completely transparent (e.g. *kick the ball out*), others being quite opaque (e.g. *chew out someone* ‘reprimand someone for doing something wrong’). According to Cowie and Mackin (1993: ix), “[t]he fact that a particular combination of verb + particle is idiomatic need not affect its grammar”, by which they mean that both transparent and idiomatic combinations in principle allow the two orderings. Yet, it has been shown on the basis of corpus research that the degree of idiomaticity does have an impact on word order preferences, in that combinations with a semantically dependent particle significantly favor the joined ordering (e.g. Gries 2003: 87; Lohse et al. 2004), a preference that is already manifest in early child language (Holger and Tomasello 2005) and that has also been supported by means of psycholinguistic experiments (Dehé 2002: 97; Gonnerman and Hayes 2005).

Gries (2003: 87) and Szmrecsanyi (2005:132) also note a significant increase in the choice of the split ordering with literal particles, although Lohse et al. (2004) maintain that this increase does not, in their data set, amount to an actual *preference* for the split ordering with literal particles – there is just a higher proportion of split orderings compared to speech. According to Gries (2003: 52), a characteristic of the split ordering is that “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.” Hence, the split ordering “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). In this account, the end-placement of literal particles is linked up with focus structure, which would entail that literalness is ultimately also a context-related factor.

In fact, of all literal particles that appear in end-position, the ones that form the clause focus all by themselves probably make up a small minority. Recall that a particle may be in end-position when it is not the only element under focus, as in (40a-b), and even when it is not at all part of the focus, as in (41a-b).

- (40) a. What happened? — I threw my RADio away.
 b. What did you do? — I threw my RADio away.
 c. What did you do with that old radio? — I threw the damn thing AWAY.

- (41) a. Did you give that old radio away? — No, I gave my computer away.
 b. Did you give that old radio away? — No, I THREW the damn thing away.

The reason why there is a higher proportion of split orderings with particles that can be independently processed than with other particles has less to do with the possibility of independent particles to have end-focus – which they *can* have – than with a higher processing cost of the split ordering with dependent particles compared to the joined ordering with such particles. As Lohse et al. (2004: 246–247) explain, if a particle depends on the verb for its interpretation, then processing benefits from putting that particle in close proximity to the verb. This way, its “lexical dependency domain” is minimized. This is actually also recognized by Gries (2003), who writes that

“it would be uneconomical to process the opaque meaning of a [transitive phrasal verb] but produce the parts that trigger this opaque meaning in possibly widely disparate positions of the sentence. With literal phrasal verbs, by contrast, no preference for a construction is to be expected on grounds of semantic dependency because the low degree of interdependence does not require a particularly small distance between the component parts and, thus, licenses both word orders.”

(Gries 2003: 54)

As regards the question in the title of the present section, we have to conclude that the influence of literalness on particle placement cannot plausibly be formulated as a contextual, in the sense of focus-structural, factor. End-placed particles do not ordinarily convey the most prominent information in a given context.

9 Motivating the contextual factors of particle placement

The above sections have made it clear that there is no one single context-related factor that governs particle placement in English. At the same time, Gries (2003) maintains that all factors that have ever been proposed (including those not involving context) can be subsumed under a single motivating principle, related to the processing cost of the object NP. His ‘processing hypothesis’ boils down to this: the harder the object NP is to process, the more it tends to follow the particle; the easier it is to process, the more likely it is to precede the particle. This hypothesis can be expressed even more succinctly in the words of Bever (1970): “Save the hardest for last”. In this section, I want to examine whether Gries’s processing hypothesis is viable: can it account for all of the factors we have dealt with?

9.1 *Re* discourse-familiarity

The ratio of split to joined orderings is higher for discourse-old object NPs than for discourse-new ones. This fact is straightforwardly related to processing issues. For discourse-old NPs, both the speaker and the hearer already have a conceptual rep-

resentation with a high degree of mental activation (Gries 2003: 166). This makes them easily accessible and useful anchor points for information units that have not had any prior mention in the discourse. Proceeding from the familiar to the unfamiliar does not only facilitate comprehension. By postponing a discourse-new constituent, speakers also buy themselves some time to think about such matters as how they will refer to the newly introduced discourse entity; which potentially complex structure they may have to retrieve from the grammar in order to express all the information needed to help the hearer identify the referent; how the lexical concepts have to be integrated into this grammatical structure, and so on (Arnold et al. 2004: 33). Somewhat surprisingly, though, Gries (2003: 130, note 33) and Lohse et al. (2004: 258) point out that factors relating to processing facilitation exert a stronger influence in writing than in speech (cf. also Section 9.4 below). Given that speed of planning and production hardly plays a role in written discourse, it seems, then, that the postponement of discourse-new NPs predominantly targets comprehension rather than production facilitation.

9.2 *Re* focus structure

Gries (2003) seems to have conflicting ideas on whether focused items have a high or a low amount of processing cost. On the one hand, Gries argues that “focused elements require more processing effort” (p. 52) because the hearer’s brain has to allocate more attention to elements that are marked as important, thus increasing their processing cost. Insofar as focal elements appear clause-finally, there is support for his processing hypothesis. On the other hand, Gries agrees with claims in the literature that focal elements have high activation in the mind of the speaker (p. 172), which means that they are easily accessible and thus, from the perspective of the speaker at least, require low processing effort. This, he admits, is then hard to reconcile with the tendency to put focal material at the end.

His solution is to argue that speakers do not only select the joined or the split construction on the basis of whether the particle or the object, respectively, happens to have the highest degree of mental activation – for example, if it is the object, it is inserted in the syntax first, resulting in the generation of a split construction – but also on the basis of the intended communicative intention. If an element is to be highlighted, the speaker will choose a constructional pattern that accords a prominent position to this element, which in English is standardly at the end. Speakers thereby conform to the general Focus-Last principle, by which hearers look for the most informative element at the end of clauses, after they have been given all the background information required for its successful processing.

We have seen that focal elements do not always occur in sentence-final position: any constituent in the clause, irrespective of its syntactic position, can contain the nuclear accent. We have also just noted, in Section 9.1, that written texts seem to attend to the needs of the reader more than spoken discourse does to the needs of the hearer, when it comes to the choice of word orderings that facilitate processing. We now have a possible explanation for why this may be so. In writing, the unavailability of prosodic cues to the contrary may force writers to stick to the general Focus-Last principle. Conversely, in speech, temporal constraints on planning may force speakers to select the ordering that allows them to insert the most active

item (the one under semantic focus) as early as possible, even if this results in the selection of a structure that deviates from the general Focus-Last principle. During the actual phonological production stage, they may then overlay the syntactic structure with a ‘correcting’ pitch pattern. It goes without saying that these are mere hypotheses.

9.3 *Re* previous occurrence of one ordering or the other

The occurrence of a construction raises its mental activation level, making it more likely to be selected again when the speaker is put before the choice of alternative orderings. It is not clear, however, how the higher accessibility of either the split ordering or the joined ordering *as a whole* ties in with Gries’s (2003) processing hypothesis, which is stated in terms of the processing cost of the direct object (relative to that of the particle) only.

9.4 *Re* register

The ratio of split to joined orderings is higher in speech than in writing. Gries (2003: 100–101) notes that this should not surprise us, since speech is characterized by a higher occurrence of short object NPs and of literal verb-particle combinations, which he shows to strongly favor the split ordering. However, the higher occurrence of split orderings in spoken discourse cannot just be written off as a simple side-effect of the well-established influence of lightness of the object and literalness of the phrasal verb.

For one, although Lohse et al. (2004: 258) equally observe that the average length of direct objects is shorter in speech than in writing, they find “no significant difference in the distribution of dependent and independent particles”, so an explanation for the higher ratio of split orderings in speech should not be sought (in part) in the brute effect of a higher ratio of literal combinations in speech.

For another, Lohse et al. (2004: 258) note that as the length of NPs increases, the ratio of split orderings decreases much more steeply in writing than in speech. So, if there are more instances of the joined ordering in writing than in speech, this is not only because there is a higher ratio of long objects in writing compared to speech, but also because, for a same number of long objects, the effect of these long objects on placement is more clearly noticeable in writing than in speech. Gries (2003: 130, note 33) also observes that in writing, the decline of split orderings is steeper for discourse-new NPs. These observations point to a finer attunement to the needs of the parser in written discourse (cf. Section 9.1 above).

Lohse et al. (2004: 258) furthermore find that in written discourse, the tendency to use the split ordering with literal particles is lower than in spoken discourse. (Again, it is not that writing is characterized by a lower occurrence of literal particles, as Gries (2003) reports. Instead, what they find is that, for any given number of literal particles, the split ordering is selected with a lower frequency in writing than in speech.) As we noted in Section 5.1, this may have to do with the connotative value attached to the split ordering, whose perceived familiarity may lead to its avoidance in written texts.

9.5 *Re* region

Clearly, regional variation in particle placement cannot be construed as a manifestation of Gries's (2003) processing hypothesis. It would be nonsensical to claim that speakers of British English, when using transitive phrasal verbs, tend to use object NPs with a lower degree of processing cost, which then accounts for their higher use of the split ordering compared to speakers of American English. One can only explain regional variation in terms of a higher entrenchment of the construction most frequently used in a particular regional variety of English and/or in terms of differences among regional varieties in the weights attached to certain factors for particle placement whose values may sometimes be in conflict. Consider, for example, the following question-answer pair:

- (42) If you could jump in a time machine and relive a certain moment of your life, which would it be? — I wouldn't. I'd blow the damn thing up. (www)

The object NP *the damn thing* refers back to *a time machine* mentioned in the question. Its status as a discourse-old entity plays a role in the use of the split ordering, which conforms to the principle by which discourse-familiar entities are given as early as possible to facilitate processing. On the other hand, the object is a three word long NP, and in general, objects of this length are more frequently put in the joined ordering (since long NPs are hard to process and may therefore be saved for last). So, there are at least two relevant processing-facilitating principles that lead to opposing word order choices.

It may be plausible to assume, as is done in Optimality Theory (Prince and Smolensky 2004 [1993]), that whenever two or more processing constraints are in conflict, speakers tend to select the constructional option which incurs the least serious violation(s), where seriousness is determined with reference to a constraint hierarchy.¹⁷ Suppose, now, for the sake of the argument, that there are only two constraints to be considered: OLD OBJ-LEFT (i.e. discourse-old objects come first) and HEAVY-RIGHT (i.e. weighty objects come last).¹⁸ In the above example, putting a three-word-long object in mid-position is felt to come at a much lower cost than putting a discourse-old object after the particle. This is, in any case, how by far most speakers of British English appear to rank the two constraints, based on a series of Google searches I did on 5 September 2006. Using Google's *Language Tools* function,¹⁹ I entered the strings "up the stupid thing", "up the damn thing" and "up the bloody thing", as well as "the stupid thing up", "the damn thing up" and "the bloody thing up", each time selecting 'Great Britain' as the country in which the search pages were to be located. I then performed the same searches, but with 'United States' selected as country. I then went manually through all the hit

¹⁷ I pass by the question as to what happens when option A violates lower-ranked *but more* constraints than option B. In Optimality Theory, A will still win out in such a case.

¹⁸ So, we ignore here, among other things, the lexical dependency of the particle on the verb in the example under discussion.

¹⁹ http://www.google.com/language_tools?hl=en

pages to cull out noise examples. The results are given in Table 4. The difference in ratios of split to joined orderings for the two selected countries is significant ($\chi^2(1) = 18.70; p \leq 0.001$).

Table 4. The two orderings by country for some selected Google search strings

	Search pages in Great Britain	Search pages in the United States
Joined: 'verb <i>up the {stupid / damn / bloody} thing</i> '	14 ($\pm 9\%$)	298 ($\pm 23\%$)
Split: 'verb <i>the {stupid / damn / bloody} thing up</i> '	149 ($\pm 91\%$)	974 ($\pm 77\%$)
Column totals	163 (100%)	1272 (100%)

So, speakers of British English clearly let the OLD OBJ-LEFT constraint prevail on most usage occasions.²⁰ For speakers of American English, the situation is less clear. While most of them also appear to find that the selection of the split ordering is preferred in cases with discourse-old objects of word-length three, a sizeable proportion of them come up with the other ordering, which means that, in American English, some less weight is attached to the constraint that discourse-old objects should be put early compared to British English and, by the same token, some more weight is attached to putting long objects late in the clause, while the actual ranking of these constraints with respect to each other is the same as in British English.

There probably is some interaction between the severity of a constraint violation and the entrenchment of a construction. Thus, in Britain, where a violation of the OLD OBJ-LEFT is seen as comparably more serious than in the US, we may expect the split ordering to be more entrenched than in the US. This deeper entrenchment may in turn have an impact on the weights attached to the ordering constraints.

9.6 *Re* frame-semantic expectedness

The ratio of split to joined orderings is higher for frame-semantically expected objects than for objects that do not form part of a particular frame evoked in the discourse. This seems to be quite naturally related to the assumption that all the elements belonging to an activated frame are themselves also activated to a higher degree than other elements. Since this higher activation of a frame-expected object (like a boiling kettle for making tea in the 'visiting someone's home in Britain' frame) also renders it less hard to process, its typical mid-position is predicted under Gries's (2003) processing hypothesis.

²⁰ I allow myself to make the perhaps unwarranted assumption that, for all practical purposes, search pages from Great Britain reflect British English usage, and search pages from the US reflect American English usage.

However, Gries's (2003) processing hypothesis, which is stated in terms of the processing cost of the direct object only, makes no prediction as to the choice of word order for frame-semantically expected *actions* (as expressed by the verb-particle combination). On the basis of the general processing constraint to put familiar elements, including familiar actions, as early in the sentence as possible, we would expect a preference of the joined ordering, with verb and particle preceding the rest of the VP. But this is not what the examples given in Section 6.4 tentatively suggest. The more felicitous option for the joined ordering in these cases may be made under the impulse of avoiding unneeded accents in the clause – recall our discussion of *hanging the washing out* vs. *hanging out the washing*. If the particle is put in end-position, it need not receive an accent in addition to the accent on the object. This leads to what Bolinger (1971: 56), perhaps somewhat impressionistically, calls “the suffusion of the sentence as a whole with a kind of relaxed rhetorical effect”.

9.7 *Re* stativity

The split ordering is obligatorily selected for literal verb-particle combinations whose verb receives, in the context concerned, a stative interpretation:

- (43) a. It is hard to leave {out all this stuff / all this stuff out}. (suggests that an urge to put it in, or even the projected tendency of the stuff itself to be included, has to be overcome by force of will)
 b. This morning, I just left {*down all the blinds / all the blinds down}. (no force needed)

This constraint cannot be linked in any sensible way with Gries's (2003) processing hypothesis. What motivates this factor, rather, is probably the fact that the split ordering underscores the family resemblance with a number of semantically related non-motional constructions, instantiated by, e.g., *judge* {*out the ball / the ball out} and *picture* {*off all the lights / all the lights off}. The possibility of putting the verb and the particle in adjacent positions is contingent on their semantic togetherness. Note in this respect that verbs and particles which resist being put in adjacent positions cannot be replaced by a simplex verb. Compare:

- (44) a. It is hard to {leave out / omit / exclude} all this stuff.
 b. This morning, I just left all the blinds down. (no simplex verb available)
 c. The umpire judged the ball out. (idem)
 d. Can you picture all the lights off? (idem)

In the end, therefore, the stativity constraint may be motivated by one of the most basic word order principles, known as Behaghel's (1932) “First Law”:

“Das oberste Gesetz ist dieses, daß das geistig eng Zusammengehörige auch eng zusammengestellt wird.”
 (Behaghel 1932: 4)

‘The supreme law is this: that which belongs closely together mentally is also placed closely together’.

9.8 Summary of Section 9

While this paper has essentially been aimed at getting a sharper picture of what kinds of contextual factors may influence the selection of one particle placement option rather than the other, it has now become clear that these factors can ultimately be motivated by the way in which they contribute to ease of processing (i.e. production/comprehension), though not exactly in the way intended by Gries (2003). More specifically, the processing ease of one or the other word order variant depends on such context-related parameters as:

(i) the early positioning in the variant of an element which has heightened mental accessibility as a result of its previous mention and, thus, which has the potential of serving as a ‘stepping stone’, especially for the addressee, to reach construal elements with lower mental accessibility;

(ii) the variant’s conformance, in the absence of ‘corrective’ intonation, to the standard – and therefore processing-facilitating – Focus-Last principle, which directs the addressee’s attention to the position in the sentence where s/he expects to find the most important information, namely at or towards the end;

(iii) the variant’s degree of mental accessibility as a result of activation through previous use;

(iv) in writing: the degree to which the variant reflects the extra requirement posed by written discourse (as a medium that is more controlled and edited than spoken discourse), namely that the writer should further enhance comprehension, e.g. by putting long objects towards the end and by not splitting up idiomatic verb-particle combinations;

(v) the variant’s degree of mental accessibility as a result of being the most entrenched ordering option in a regional variety, and/or whether or not it is the ordering option in a given usage situation with the least severe constraint violations as evaluated by variety-specific standards;

(vi) the early positioning in the variant of a frame-semantically expected (hence accessible) element and its absence of uncalled-for accents (which are costly to produce, and, for the hearer, to give heed to).

(vii) the separation of elements in the variant that could wrongfully be interpreted as conceptual units if they were not separated.

10 Towards modeling the contextual factors of particle placement

We have seen how the multiple context-related factors that play a role in the particle placement alternation find their motivation in processing efficiency. The question, first of all, is whether we ought to give a place at all to these processing-facilitating factors in a grammar of English. Can’t they just be dismissed as a matter of performance/parole? After all, isn’t what matters to a grammarian just to know which word strings are grammatical rather than to know which ones are easy to process? This narrow view of what counts as grammar proper seems to underlie

a statement like the following: “Given two equally grammatical outputs, a speaker is free to use other, non-grammatical, criteria to decide which of them to use.” (Svenonius 1996: 54). However, constructionist frameworks, like Construction Grammar, do not *a priori* regard pragmatic, discourse-functional or even socio-linguistic considerations in the choice of a constructional variant as falling outside the realm of grammar [xx some references might be needed here xx]. While the main achievement of Construction Grammar so far has been to link up lexicon and semantics more closely with syntax (which is then no longer considered to be an autonomous component of grammar), there is no denying that this framework is now also taking an active part in a general trend within contemporary linguistic approaches towards what Geeraerts (2006) calls the “recontextualization” of grammar, that is, towards reintegrating into grammar various forms of context that had been severed from it during the Chomskyan revolution: “the social context”, “the situational context of actual language use” and “the cognitive context of meaning and experience”. In this paper, we have considered a variety of elements which relate to these aspects of contexts and which provide information to the language user (in other words, which serve as contextual ‘cues’) as to which ordering option a speaker should select when using a transitive phrasal verb.²¹ These kinds of information are drawn upon by language users – they know what to do with these cues – and they should therefore be captured in a grammar that aspires at reflecting all the knowledge speakers have about the language they use.

A next, and much less trivial, question is *how* we can incorporate these context-based cues in a constructionist model. I can only offer some very sketchy suggestions at this stage, pointing out some possible avenues for future endeavors. A fruitful way to start looking at grammatical variation from a constructional perspective is to look at the options as ‘allostructions’ (Cappelle 2006), that is, as formally distinct realizations of a more abstract construction that remains underspecified for one or more particular features – in our case, the exact placement of the particle *vis-à-vis* the direct object and the internal constituency of the VP (cf. Farrell 2005). This is visualized in Figure 1 for transitive *blow up*. It will be observed (i) that the semantics of the two allostructions exactly matches that of the more abstract construction, (ii) that the lexical leaves in the syntactic trees are linked up with the lexically specified verb and particle in the otherwise more unspecified syntactic representation in the upper construction, and (iii) that the NP in each of the allostructions corresponds with the patient argument in the semantic representation. Boldface in the semantic representation means that the semantic roles involved must be realized syntactically. Of course, the agent role is syntactically expressed as a subject argument, in keeping with standard linking rules.

XX Figure 1 hereabouts XX

²¹ We excluded literalness as a context-related factor in Section 9, but Geeraerts (2006) would probably consider this factor as belonging to “the cognitive context of meaning and experience”.

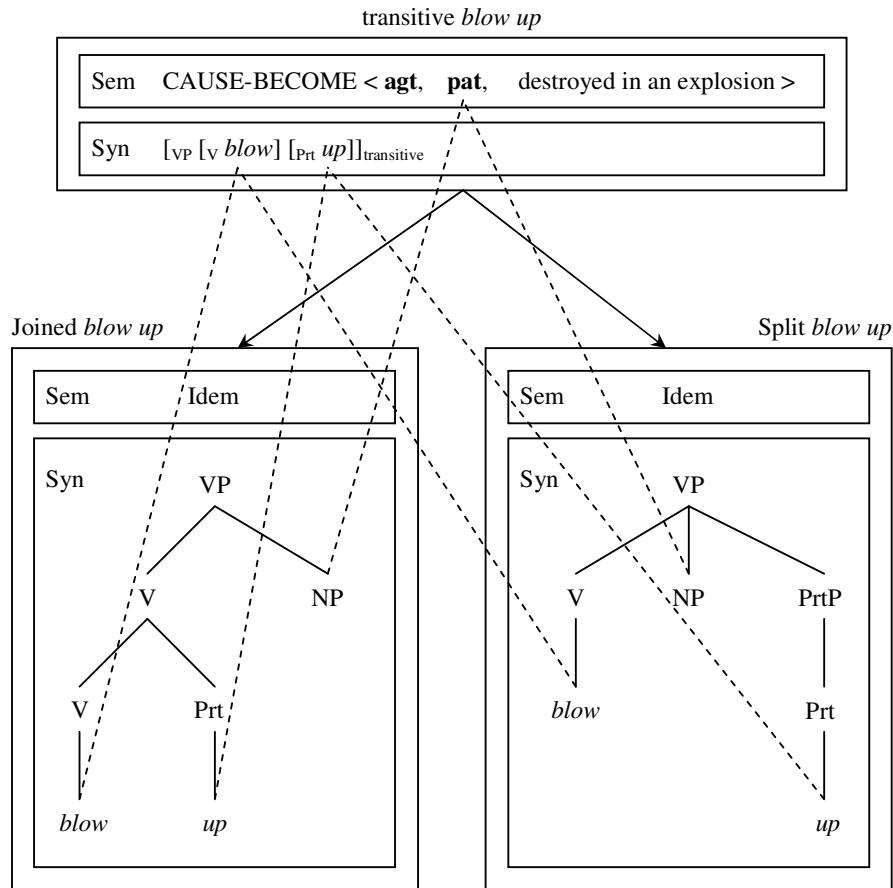


Figure 1. The two allostructions (joined and split) of transitive *blow up*

We then have to ensure that the most appropriate ordering is chosen under certain contextual conditions. How are we to appeal to context-related processing constraints in a framework where one of the main tenets is that “[t]he totality of our knowledge of language is captured by a network of constructions: a ‘construct-ic-con’” (Goldberg 2003: 219). That is, if a constructionist framework embraces “the idea that the network of constructions captures our knowledge of language *in toto* – in other words, it’s constructions all the way down” (Goldberg 2003: 223), does this mean that general processing-facilitating constraints should also be described as constructions?

Some tentative proposals along these lines have been made by Stefanowitsch and Gries (2002) with respect to the GIVEN-BEFORE-NEW principle. Instead of treating this as a universally valid principle – which it isn’t – with extra-grammatical status, they suggest a number of constructional treatments, one of which is to give ‘Given-X-New-Y’ (GXNY for short) the status of a general information-structure construction within the grammar. A consequence of such an approach is that the acceptability of an allostruction in a given usage context is not evaluated in terms of the number of constraints it does or does not violate but,

rather, in terms of the number of general constructions it does or does not inherit. In essence, constraint-violation and construction-inheritance boil down to the same thing; they seem to me to be alternative ways of looking at a single phenomenon. Choosing between two constructional alternatives may then be described as an evaluation of the severity of each alternative's failing to inherit one or more general constructions. This severity is partly determined by these constructions' relative positions in a ranking, more or less in the way of Optimality Theory, but also partly by their absolute positions in that ranking.

As a highly simplified example, consider again the variety-related difference in distribution of 'verb *up the damn thing*' and 'verb *the damn thing up*'. Recall that we hypothesized that American English and British English do not differ with regard to the relative ranking of the OLD OBJ-LEFT constraint and the HEAVY-RIGHT constraint, but do so with regard to the degree to which the former constraint is felt to be more important than the latter. This means that we should represent the rank-ordered constraints (whether or not we construe them as constructions) as interval values and not just as ordinal values. Figure 2 shows, very schematically, the relative positioning of these two constraints in British English on a scale of importance. The farther to the right a constraint is positioned, the less easily it can be violated. Of course, other constraints on particle placement should also be located somewhere on this scale, but I disregard them here for practical purposes. (Some of these other constraints in fact have to be located even further to the left than OLD-OBJ-LEFT.)²²

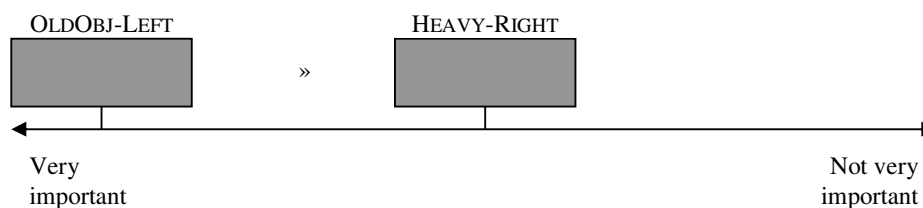


Figure 2. Two rank-ordered constraints on particle placement in British English

This figure abstracts away from differences that may exist among regional dialects within British English, as well as from possible differences among individual speakers. Also not represented in this figure (but see figure 4 below) is the fact that OLD OBJ-LEFT is a special instance of GIVEN-X-NEW-Y and that HEAVY-RIGHT may be further motivated by Hawkins's (1994) 'early immediate constituents principle' (EIC), by which a heavy NP in end-position does not compromise quick identification of all the immediate constituents of a VP as it would if it were in mid-position (since then, the hearer would have to wait to add the particle to the list of immediate constituents until s/he had heard the NP in its entirety). Compare Figure 2 now with Figure 3, where the location of these two constraints on an importance hierarchy is shown for American English. Observe that the ranking order is maintained but that the difference in importance is smaller.

²² See Farrell (2005: 125–128) for the ranking of some broad syntactic word-order constraints. The most important constraint in his ranking is the one stipulating that heads have to be leftmost in the phrases they expand (so that the verb is the first element in the VP).

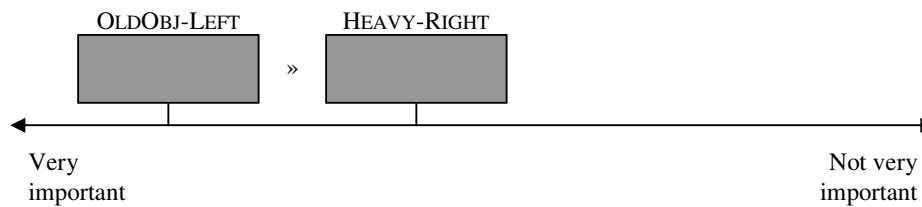


Figure 3. Two rank-ordered constraints on particle placement in American English

Such a partial constraint hierarchy can now be fused with the transitive *blow up* construction so as to enable evaluation of constructs like *blow up the damn thing* versus *blow the damn thing up*, where in each case *the damn thing* is a discourse-old object NP consisting of three words. A proposal on how this might be done is shown in Figure 4. On the right of this figure, we recognize a schematic rendering of the constellation more fully represented in Figure 1 above. While we have left out the semantic and syntactic particulars, we have added a piece of information, namely that, out of context, the joined ordering should be selected more readily than the split ordering, due to the semantic dependency of the particle and the verb. This relative ranking of the joined and the split ordering is therefore represented as an instance of Lohse et al.'s (2004) 'lexical dependency domain (LDD)' minimization principle.

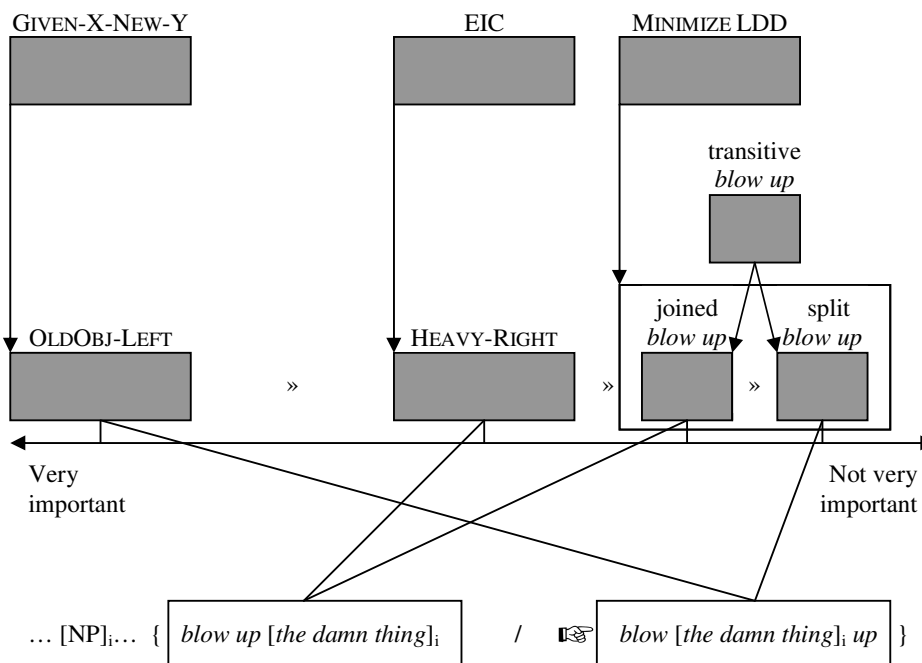


Figure 4. Simplified evaluation of the joined vs. split ordering for the transitive phrasal verb *blow up*, used with a 3-word discourse-old object in British English

On the same hierarchical scale we can also find again the OLDOBJ-LEFT constraint and the HEAVY-RIGHT constraint, among quite a few others that have been left out for the sake of visual clarity. Their respective motivating principles are represented as well (cf. the discussion below Figure 2). The distance between these two constraints iconically reflects the degree to which (I hypothesize) they are felt to differ in absolute, rather than just relative, importance by speakers of British English (cf. Figure 2). Remember that this difference can be smaller or greater for speakers of other regional varieties. We now have four constraints/constructions placed on a single interval scale. This will suffice to illustrate how speakers may go about weighing up the two word order possibilities available with *blow up* when using this phrasal verb with a relatively long object referring back to a discourse-old entity. (The discourse-old status of the object NP is represented by means of a subscripted index, indicating its coreferentiality with an NP in the preceding context.) As far as the joined ordering is concerned, the speaker obeys the HEAVY-RIGHT constraint and avoids the disjunction of the semantically dependent components of the phrasal verb. However, its merits are outweighed by the advantage of the split ordering. This ordering admittedly disintegrates the idiomatic unit of verb and particle but complies with the important constraint of putting discourse-old objects as far as possible to the left. Accordingly, the split ordering will be opted for. In our representation, it deserves the pointing finger symbol, which is also used by practitioners of Optimality Theory to indicate the best candidate of any number of competing options. The joined ordering does not receive an asterisk for ungrammaticality, since it *can* be used, but it is used far less frequently than the split ordering.

In American English, the joined ordering is also the dispreferred option, but it reaches higher frequency than in British English. I have assumed, mainly for argumentative reasons, that this higher frequency is a result of the smaller difference in importance between OLDOBJ-LEFT and HEAVY-RIGHT in American English. I should emphasize here that I do not feel strongly about this assumption and that it needs to be tested empirically by taking other factors into account. For example, it might just as well be the case that, compared to British English, more importance is attached in American English to the MINIMIZE LDD constraint, leading to higher observance of the adjacency of the components of an idiomatic phrasal verb.

Whatever may be the case, though, the general evaluation mechanism as modeled here would remain unaltered. While I have outlined it in necessarily broad and suggestive strokes, the main virtues of the proposed model should be clear. It provides a unified treatment of constructions and constraints, and of various sorts of parameters involved in grammatical variation: lexical preferences, structural factors, as well as contextual cues for making a grammatical choice.

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