The Metaphoric in Recent Cognitive Approaches to English Phrasal Verbs[1]

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Abstract

Cognitive linguistics is a multi-faceted enterprise, combining more syntactic-conceptual approaches with more semantic-conceptual ones. In the former, metaphor is downplayed, in the latter it is ever further exploited. But also the traditional syntactic-semantic approach is very vigorous; only it could profit by more input from the metaphorical drive. These different tendencies are exhibited in various analyses of phrasal verbs.

0. Introduction

As a preliminary definition, phrasal verbs can be said to possess some degree of idiomaticity in the assembly of the verb plus preposition (*cry over something)*, or verb plus separable particle (*run up the flag*, *run the flag up)*, verb plus inseparable particle (*run up a debt*), or the double assembly of verb plus particle and preposition (*face up to problems*). Crucial in the differentiation of phrasal verbs is the special "constructional" contribution of the original preposition or particle to the whole. Hence any study of phrasal verbs must also come to grips with the semantics of prepositions and particles. It is precisely in the area of prepositions and particles that the output of Cognitive Linguistics (CL) research in the 25 years of its existence is immense. Apart from the more general discussions by Talmy (1991), Langacker (1986, 1992), and Lakoff (1987), there have been numerous in-depth studies of single items or groups of them.[2] A general characterisation that applies to many of these studies, particularly to Lakoff (1987), is that they accept a large number of different senses for each preposition or particle, that they do not bother about the schematic meaning uniting the various senses of a linguistic form, and that most non-literal meanings are seen in terms of metaphoric extensions.

Recently, four new studies[3] have been set up, i.e. Tyler and Evans (In preparation), Morgan (1997), Hampe (2000), and Gries (1997, 1999). The paper by Tyler and Evans can be characterised, roughly speaking, as 'a-metaphorical' in orientation, whereas Morgan and Hampe continue and further extend the 'metaphorical drive'. In contrast to these exclusively semantic oriented studies, Gries also concentrates on the syntax of verb-particle constructions, especially on the possibilities of particle placement. The present paper highlights the main gains made by each of these approaches, while simultaneously making some of their unstated

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[2]. Some of the most important ones are: Boers (1996), Bolinger (1971), Brugman (1981, 1988), Cuyckens (1984, 1988), Deane (1993a,b), Dirven (1989a, 1993), Ekberg (1997), Kaiser (1989), Kalisz and Kubinski (1995), Kryk-Kastovsky (1995), Lindner (1981, 1982, 1983), Radden (1981, 1989), Regier (1993), Rice (1993, 1999), Ross (1994), Rubba (1994, 1996), Rudzka-Ostyn (1985), Sandra and Rice (1995), Schulze (1987, 1990, 1993), Taylor (1988, 1993), van Oosten (1977).
[3]. There are, of course, more studies available, but I selected these four as highly representative.

or implicit views more explicit. The need for a fully integrated syntactic-semantic approach is strongly emphasised.

1. Tyler and Evans' minimal-specification view

Although Tyler and Evans do not specifically concentrate on phrasal verbs, their indirect contribution to the field of phrasal verbs deserves attention. Seen from the angle of theory building, the authors expand on the most valuable insights of cognitive linguistics, combining them also with insights from pragmatics, especially Grice's theory of implicatures. In this way, they develop a new and original theoretical framework for CL.

Their theory is a balanced phenomenologist view[4] (although they do not use this term). In their view of the relationship between the mind and the world they accept the existence of a real world, which is however only accessible to man by perception so that we can only deal with a "represented" real world, or a "projected" world, as Jackendoff calls it.

The representation of the real experiential world in our mind forms our conceptual system. The meaning of language lies in this conceptual world. In our use of linguistic forms we can and only do offer a minimal specification of our representation of the real world. Because of this minimal specification provided by linguistic forms, a large amount of information is to be inferred from the hearer's knowledge of the world. Here the theory of implicatures has its main function. In our understanding of a sentence, such as *The cat jumped over the wall*, we have the mental representation of an arc with the points A, B, C, but in their "minimalist" view this arc is not part of the meaning of the linguistic form *over*. The preposition *over* does not describe the whole trajectory (arc) of the cat's motion, but, of all the possible elements in the much richer global reality, it only encodes the verticality notion of "higher than and proximate to some point". Thus, the cat's jump is conceptualised as a scene, consisting of a point A, where the cat is at the lowest point, a point B, when the cat arrives at the top of the arc, and finally a point C, where the cat lands at the other lowest level. This richer information is not expressed in the sentence as such, but thanks to the integration of our knowledge of linguistic forms and our general background knowledge of the world we can construct the rich interpretations that we need in interaction.

The authors call their view of language the minimal-specification view. Such a view has important repercussions for the analysis of linguistic forms, e.g. the description of *over*. Since this particle, in its proto-image, which is the authors' term for "a central image schema", does not represent the whole arc ABC, but only the point B, it merely has – as just stated – the basic meaning of "higher than and proximate to". In this basic meaning, *over* is only static, not dynamic (whereas most authors claim that many particles and prepositions have two basic sets of meaning, i.e. static and dynamic ones). In the authors' view, dynamic interpretations of prepositions rather result from the contextual information provided by dynamic verbs like *jump*. In this view, the authors may have overlooked the reality of automatically operating
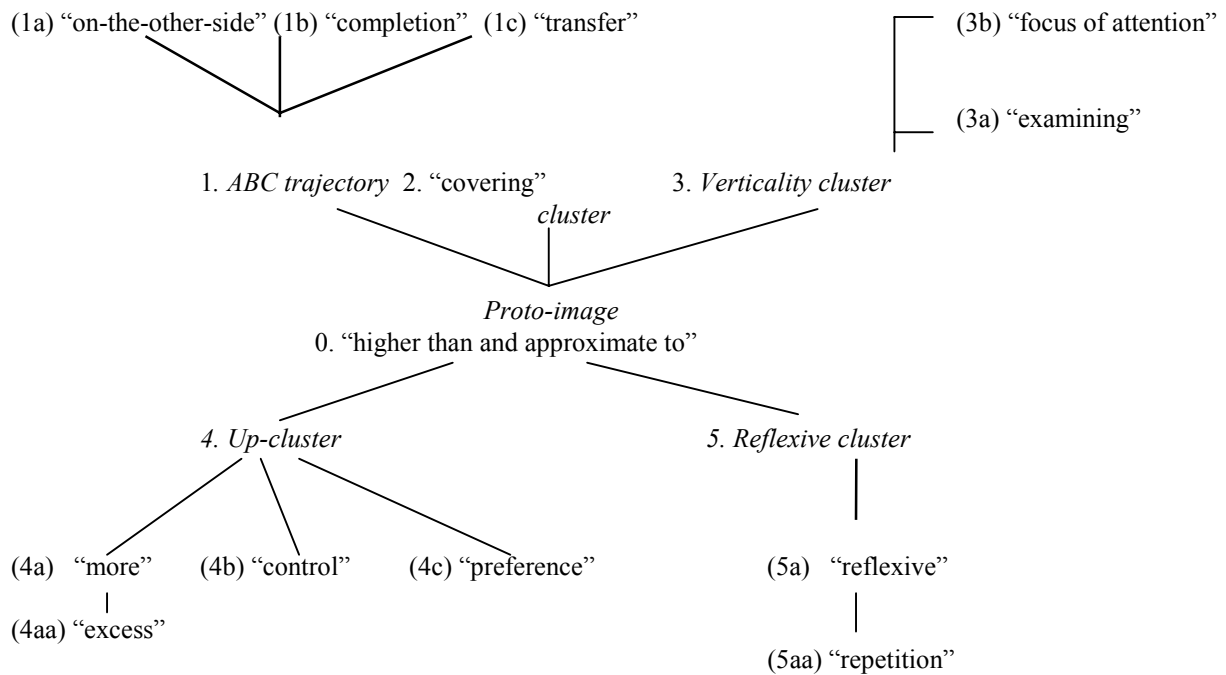
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[4]. See Geeraerts (1985: 355), and Lakoff and Johnson (1980: 181; 1999).

metonymic processes. Once a given form is regularly associated with a contextual meaning, this may become part of the form's extended meaning. In fact, all this is a question of conventional implicatures: once a conversational implicature gets entrenched in the language, it becomes part of the meaning of a linguistic expression. This also shows that the issue of conventional implicatures itself is a question of metonymy.[5] Since no arguments are provided as to why the trajectory in the form of an arc ABC is only given in the represented reality itself, and not in the linguistic concept(s) which *over* symbolises, each of the two views seems plausible, to say the least.

Together with their minimal-specification view, the authors also develop an experientially-based explanation for the phenomena of meaning extension and polysemy. This experiential basis is what they call "perceptual correlation". This means that two different events or states are seen to co-occur so often that we can take their co-occurrence for granted, and can focus on the whole complex scene, or on any part of the scene. Thus in the case of (*jump*) *over*, we can focus on the whole trajectory or only on the second part of the trajectory, while describing the first. That is, when moving over point B, we can focus on the whole of the trajectory ABC or on any point in this trajectory: either point B itself, or a point beyond B, which yields the sense of "on-the-other-side-of" as in *over the mountains;* or we can focus on the motion towards C, which yields the "transfer" sense of (*hand sth.) over;* or additionally, we can focus on the moment when the motion arrives at point C: at this point the motion has completed the arc, which explains the sense of "completed" as in *the lecture is over*. Tyler and Evans' observations can be summarised in the following semantic network, whereby we keep their meaning clusters and the senses of *over* belonging to each cluster intact, but rearrange and structure the whole in the form of a radial network.

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[5]. I owe this suggestion to John Taylor. In fact, while the Tyler/Evans approach is strongly a-metaphoric, it could profit enormously from a more metonymic orientation. This especially applies to their later discussion of the figurative meaning of "seeing is knowing." Although this need not be a metaphor, it certainly is a metonym, but not necessarily a case of correlation. See also fn. 6.

Figure 1. The semantic network for *over*

(1a) "on-the-other-side" (1b) "completion" (1c) "transfer"   (3b) "focus of attention"

                                                                               (3a) "examining"

                1. *ABC trajectory* 2. "covering"   3. *Verticality cluster*
                                        cluster

                        Proto-image
                0. "higher than and approximate to"

                4. *Up-cluster*   5. *Reflexive cluster*

(4a) "more"   (4b) "control"   (4c) "preference"   (5a) "reflexive"

(4aa) "excess"   (5aa) "repetition"

These senses are illustrated in the following set of sentences:

(0)   He *jumped over* the wall.

(1)   a. Arlington *is over* the Potomac River from Georgetown.

       b. The film *is over*.

       c. Sally *turned* the keys of the office *over* to the janitor.

(2)   The tablecloth is *over the table*.

(3)   a. Mary *looked over* the manuscript quite carefully.

       b. The little boy *cried over* his broken toy.

(4)   a. Jerome found *over forty* kinds of shells on the beach.

       aa. The heavy rain caused the river to *flow over* its banks.

       b. She has a strange *power over* me.

       c. I would *prefer* tea *over* coffee.

(5)   a. The fence *fell over*.

aa. After the false-start they *started* the race *over*.

The attractiveness of the authors' view is that in their application of Lakoff and Johnson's (1999) notion of "the experiential or embodied basis of meaning", they have even surpassed Lakoff's (1987: 416ff.) own analysis of *over* with its 24 different senses. In the authors' new analysis, these have been reduced to half that number.

But there is more to give their proposal cautious credit. First the authors manage to account for the fact that *over*, as a case in point, has different clusters of senses such as (1) the ABC trajectory cluster, (2) the Coverage schema, (3) the Verticality cluster, (4) the *Up* cluster, and (5) the Reflexive cluster (see the representation in Figure 1). Also the extensions within each cluster of senses are fully motivated. Further, the coherence of the clusters of senses within the whole semantic network of *over* has been accounted for. Finally, by doing all this the authors have shown the usefulness of the very notion of semantic network itself, the value of which has lately come to be slightly questioned as a descriptive tool (see e.g. Taylor 1995).

By introducing the notion of "perceptual correlation", the authors manage to reduce the traditionally heavy reliance on metaphor as an all-explanatory principle for meaning extension, as is still practised in most of Lakoff's and also Sweetser's analyses. Whereas Langacker (1987: 168ff.) seems to adopt a critical and tentative a-metaphorical attitude, the authors very strongly pursue this non-metaphorical avenue. Even in their explanation for the use of *see* and *vision* in the meaning of "know" and "understand" they claim that, given the perceptual basis of human experience, it is clear that 'seeing' and 'knowing' things are perceptual correlates and that we can focus on either of them to mean the other.[6] The question is, however, whether this is not a matter of implicature rather than of "perceptual correlation" or both, and whether implicature and perceptual correlation are not just two different names and views of the same phenomenon? Whatever the answer, this does not mean that the authors reject the reality of conceptual metaphors. On the contrary. But they combine it with the notion of "perceptual correlation" and thus it can hopefully help to clarify the boundaries of metaphor and to add more balance to the all-explanatory force attributed to metaphor.

In contrast to the previous approach, which reduces the impact of metaphor and tries to exploit the potential of "perceptual correlation" and/or implicatures, the following approaches try to fully explore the metaphorical potential of language and thought.

2. The metaphorical drive

2.1. Morgan's re-interpretation of Lindner's findings

Morgan's study is conceived as a tribute to the first cognitive analysis of particle verbs by Lindner (1983). Not only are most of Lindner's examples used again, but also her non-metaphorical analyses are closely considered, and supplemented with deeper metaphorical

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[6]. In fact, this is not quite true: whereas seeing may stand for knowing, knowing does not entail seeing, since there are many different ways of getting to know things.

interpretations. Morgan (1977: 355) sees four possibilities for metaphorical extensions with a verb-particle construction, e.g. *take out*, whereby the particle *out* presupposes the prior existence of a container, either literally, metaphorically, metonymically or otherwise.

(6)	Extension possibilities for verbs: CONTAINER		VERB	
	a. I *took* the mug *out of* the box:		literal	literal
	b. We *fished out* the ring (from the bowl):		metaphorical	literal
	c. We *handed out* the brochures :		literal	metaphorical
	d. We *picked out* a name for the baby*:*		metaphorical	metaphorical

Only in the literal sense of (6a) is there a common literal source domain for verb and preposition. In all the other cases there isn't a common source domain, but two different ones. Thus in (6c) the verb *hand* denotes the literal manipulation of an object, but there is no "literal" container. Here the pile of brochures, or more generally, any set of similar things, is seen as a container. Many domains can be metaphorically seen as containers. Thus a source/origin/center, a set, a field, a previous boundary, possession, and inaccessibility or 'hiddenness' are all seen as possible effects of a state of containment. The conceptualisation of these abstract categories as containers also offers an explanation for the many different meanings of *out* in particle verbs as exemplified in (7):

(7)	Metaphorisations of the "container" notion:	
	a. SOURCES ARE CONTAINERS:	*cry out, sing out, beach out*
	b. SETS ARE CONTAINERS:	*pick out*
	c. BOUNDARIES ARE CONTAINERS:	*roll out, fill out, lay out, line out*
	d. INACCESSIBILITY IS A CONTAINER:	*make out, work out, figure out*

The full conceptual richness of a particle verb also involves several other metaphorical processes. Thus the verb *to figure out* in the title of the paper is analysed as an instance of manifold metaphorisation, containing four steps:

— The noun-derived verb *to figure* means 'to manipulate numbers' and is a metonymy[7] based on the notion of 'number'; via "a conventionalized metaphor that conceptualizes thinking as a form of calculating" (1997: 343), *to figure* is metaphorised into the more abstract meaning of 'reaching a solution by thinking'

— The literal use of *out*, meaning 'not within the boundaries of a container' is "extended to other kinds of accessibility, such as when a problem is conceptualised as a (blocked) container" (1997: 343).

— From these two source domains, i.e. from the verb *to figure* via the conceptual metaphor THINKING IS CALCULATING, and from the particle *out* via the conceptual metaphor A PROBLEM IS A (LOCKED) CONTAINER, the new compound verb *to figure out* has developed one target domain, meaning "to make a solution cognitively accessible by thinking". Thus the particle verb *to figure out* becomes an integrated construction, both semantically and syntactically.

— Finally, according to Morgan, on the basis of the metaphor ACCESSIBLE IS OUT, VISIBLE IS OUT (see (7d) above), the conceptual metaphor KNOWING IS SEEING is also involved, so that the full conceptual content of *to figure out a solution* means "causing something to be known by thinking about it" (1997: 345).

The paper thus shows that a highly systematic analysis of the various classes of particle verbs is possible. But as with Tyler and Evans, this paper does not discuss the syntactic status of the items under scrutiny such as *out*. In fact, its real form as a preposition is the compound item *out of* as in (6a). The alternation between the two forms *out* and *out of* thus reveals that the difference between preposition and non-preposition status is real.[8] Another important fact is that the four possibilities of meaning extension summed up in (6) are not exhaustive. In addition to the input of purely literal meanings, the input for a particle verb may also be a metonymic/metaphorical verb, as the following paper by Hampe has shown.

2.2. Hampe's metaphorical view of "to face up to"

Hampe (2000) deals with a fifth case in addition to Morgan's cases of metaphorisation in the formation of a verb-particle construction. When the verb-particle construction *to face up to* is formed, the verb *to face* is already a figurative verb, whereby part of a person, i.e. the face, metonymically stands for the whole person. Moreover, there is a double extension from *to face* into *to face up to*. Hampe's analysis convincingly shows that *to face problems* is not simply synonymous with *to face up to problems*. With the simple verb we can have both human and non-human subjects (8a, b).) But the compositional meaning of *to face up to* only allows an agent-driven construal (9a).

(8)   a We faced serious problems.

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7. For a systematic study of derived verbs as a result of a metonymical process, see Dirven (1999).
8. *Oxford English Dictionary* analyses the complex preposition *out of* as consisting of the adverb *out* and the preposition *of. Of* thus renders prepositional status to the adverb *out*.

b. Serious problems faced us.

(9)   a. We are facing up to a huge problem.

b. *A huge problem is facing up to us.

Just as Morgan deals with *out* in *to figure out*, Hampe (2000: 92) claims that the particle *up* in *to face up to* is motivated by conceptual metaphors in multiple ways and she makes an important generalisation: "This simultaneous motivation by more than one conceptual metaphor is a very common property of particles in a verb-particle construction." First the event of being confronted with a problem is structured in terms of the physical experience of "facing" them. The much more specific, and hence richer, meaning of the particle verb *up to* in comparison with the single verb *to face*, results from the three metaphorical extensions of the components *face, up* and *to*.

The element *face* in *to face up to* has, just like the simple verb *to face*, the sense of "being situated in front of or opposite some entity". This location sense also explains why the simple verb *to face* in (8) allows both human and non-human subjects. This location sense of *to face* is widened into a general experiential sense of confrontation by means of the complex "event structure metaphor". The domain of event structure is a cover term for a whole chain of events and states subsuming not only locations, states and events or changes (of state), but also causes (of changes), actions (as self-generated changes), purposes (of actions), means (for realising actions), difficulties encountered when acting, and its sub-metaphor PROBLEMS ARE OBSTACLES. By mapping this event structure onto the location sense of the particle verb, its component *to face* now means "to confront something". The stative location verb has now assumed a dynamic action sense.

The two components *up* and *to* add very rich extension possibilities, too. The particle *up* evokes the verticality or *up-down* orientation and of this source domain it is "the upper limit of the verticality orientation" that is added to the event structure of *to face*. This physical space domain is the source domain for many different metaphorisations all suggesting positive values, such as CLOSE IS UP, ACTIVITY IS UP, CONTROL IS UP, COMPETITION IS UP. Of these and several other possibilities, the *face up to* construction incorporates the notions of "activity, control, and completion". Finally, the preposition *to* denotes a physical goal in space. As a conceptual metaphor, *to* implies "motion towards an abstract entity" such as a problem, a difficulty, etc.

Each of these three metaphor systems contributes to the compositional global meaning of *to face up to* as "to actively confront an entity that poses a problem, a difficulty for one's further actions". However, the schematic meaning of *to face up to* transcends this compositional structure, since it also encompasses the notion of an "energetic human agent" and that of "emotionality". In this sense the construction is strongly idiomatic. Thus with Goldberg (1995: 4) we could say that the particle verb *to face up to* instantiates the construction schema 'verb + *up to*,' which contains the additional senses of "energetic agent" and of

"emotionality", which is inherited by each instantiation that the construction schema sanctions.

The additional semantic components of speaker emotions and attitudes may have arisen as conversational implicatures which have gradually become conventionalised (these terms are not used by Hampe). This seems to be confirmed by the corpus-based contexts in which *to face up to* occurs: these contexts typically carry stylistic connotations of colloquial language/slang or evaluative connotations and are very frequently metaphor/metonymy/idiom contexts. Whereas Hampe thus makes a first inroad into syntactic aspects of particle verbs (see the opposition between (8) and (9)), this avenue is not further explored in the rest of the paper. Here Gries has made important progress.

3. Gries's approach to transitive particle verbs and particle placement

Gries (1997, 1999) focuses on a subclass of particle verbs, i.e. transitive particle verbs, and on the ensuing question of particle placement after the verb itself or after the direct object. Although this seems to narrow down the scope of particle verb research at first sight, it rather widens the horizon in that it unites the syntactic and semantic properties of the whole construction. Moreover, Gries's work is a corpus-based study, the results of which may have , next to their merits, some debatable implications. First, Gries says he wants to evade the terminological discussion about the status of *up* as a preposition or an adverb and proposes to replace both by the term *particle* so that we do not have to use different labels for the analysis of *up* in (10a, b, c).

(10)   a. He ran up the hill / * He ran the hill up.

b. He ran up the flag / He ran the flag up.

c. He ran up a huge bill / *He ran a huge bill up.

But as (10c) with its fully idiomatic meaning shows, the problem is not so simple. If, as the traditional grammatical analysis says, in (10a) we have a preposition and in (10b) an adverb, the question remains as to the possible word status of *up* in (10c). It seems to be neither a preposition nor an adverb, so that we have at least three different subclasses, i. e. prepositions, adverbial particles, and 'pure' particles.

In an earlier analysis, Yeagle (1983: 119ff.) had invoked the contrast between landmark and trajector to account for the ungrammaticality of *He ran the hill up* in (10a). If the trajector (*he*) is modified by the form *up*, the particle cannot follow the landmark. But if the landmark (*the flag*) is affected as in (10b), the particle can follow it and denotes a resultant state. Gries (1997: 5 fn. 7) criticises this statement, since it "offers no explanation for the observed pattern (that a particle should not follow its landmark)." Instead, he suggests the following explanation for Yeagle's generalisation, namely: "We can only speculate that this might be a consequence of some iconic principle that has by Lakoff and Johnson (1980: 128ff.) been termed CLOSENESS IS STRENGTH OF EFFECT. This certainly goes in the right direction, but does not explain the landmark's behavior. It seems to me that the far-reaching

implications of the position of the particle "up" in (10b) has not yet been accounted for in this line of explanation.

Quite legitimately, Gries wants to concentrate on his own research objective, which is the alternation between the two structural possibilities of particle placement with transitive particle verbs: the post-verb position (construction 1) as in (11a) or the post-DO (direct object) position (construction 2),[9] as in (11b).

(11)   a. He *picked up* a pencil.   Construction 1: post-verb position

       b. He *picked* the pencil *up*.   Construction 2: post-DO position

Traditionally many diverse and unrelated explanations have been offered for the alternation of particle placement in (11), which Gries (1999: 119) summarises under four factors: (1) phonological factors such as a (contrastively) stressed direct object, (2) syntactic factors such as a full-lexical NP, a definite or indefinite NP, a complex NP (with embedded relative clause), or a preposition phrase following the particle, e.g. *pick something up from the floor,* (3) semantic factors such as referentially vague objects (such as *matters* or *things*) which require little attention, and the factor of idiomaticity as in *lay down the law, vs. *lay the law down*, and, (4) discourse factors such as the distance to the last mention of the referent or to its next mention. The idiomatic expression *lay down the law* is similar to (10c) in that in both cases the particle can no longer denote a resultant state. In the idiomaticising process the particle has become part of a new idiomatic unit in which the meaning of the two components is not assembled to form a composite meaning, but which has a different meaning altogether so that the particle no longer has its own meaning.

The deeper principle which Gries proposes as the underlying principle for all the four or more factors adduced in the literature, and which he empirically explores in a corpus, is the consciousness principle, manifesting itself in the degree of attention needed to set up mental contact with the NP's referent.

He formulates his consciousness hypothesis as follows: "construction 1 will be preferred with objects requiring a high amount of consciousness and construction 2 will be preferred with objects requiring none or only a limited amount of consciousness for their processing" (Gries 1997: 64). The degree of consciousness is in its turn determined by two conditions (in the order of importance as given here, which is not emphasized by Gries): the discourse context and the entrenchment of the linguistic form denoting a referent. Objects that are new in the discourse context like *a pencil* in (11a) prefer construction 1, whereas objects that are accessible or active via the discourse context preferably occur in construction 2 as in (11b). Similarly, according to Gries (1997: 64), poorly entrenched objects prefer construction 1, but fairly well entrenched objects are more frequent and therefore more acceptable in construction 2. The degree of entrenchment is partly, though not solely, equated with the reverse of the

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[9]. Given the probable historical development from *brush the snow/dust off a coat* into *brush off the coat,* there are good reasons to call the former construction 1 and the latter construction 2. But synchronically things are different and construction 1 is the unmarked case.

Silverstein Hierarchy (SH), such that nouns/referents at level 1 in Table 2 are least entrenched and forms/referents at level 11 in Table 2 are most entrenched.

Table 2. The Silverstein Hierarchy (according to Deane)

1. Abstract entities

2. Sensual entities

3. Locations

4. Containers

5. Concrete objects

6. Animate beings (other than humans)

7. Kin terms

8. Proper names

9. 3rd person singular pronoun

10. 2nd person singular pronoun

11. 1st person singular pronoun

The Silverstein Hierarchy offers a plausible explanation for the fact that with pronouns referring to an abstract referent such as malaria we can use construction 2 only (12a), which is sufficient proof that the criterion of the discourse context overrides the Silverstein Hierarchy. When the same anaphoric reference is made by means of a superordinate abstract noun like *disease* (level 1 in SH), we tend to find, in the large majority of cases, construction 1 as in (12b), which is in clear contrast with the use of construction 2 with concrete objects as in (11b) *He picked the pencil up.*

(12) a. He has got malaria. He *picked* it *up* in Kenya.

b. He has got malaria. He *picked up* that disease in Kenya.

c. He has got malaria. He *picked* THAT disease *up* in Kenya.

But it appears now also construction 2 is acceptable for 9 out of 10 informants[10], for 8 without any reservation, for one under the condition of a stressed form, indicated by upper case. Thus

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[10].The presentation by Gries, who marks this example as ungrammatical (*), needs further precision. Since so many examples following from his proposed rules or preferences should be ungrammatical, but were judged correct by my routine informant, I decided to have a quick test with 10 linguists. Their judgments for 4 sentences are presented below.

Sentences	Judgments:	Correct	Uncertain	Incorrect
1. *They laid the law down*		4	3	3
2. *He picked that disease up in Keny*		9	-	1
3. *She brushed the accusations off*		9	-	1
4. *We can't brush the neighbours off again*		5	4	1

we have a striking similarity between (12a) and (12c). In (12a) the definiteness of the referent is directly linked to a previous mention in the discourse; in (12b, c) the link is made via the intervening superordinate abstract category *disease*, which in spoken language (12c) can be stressed and is potentially more in focus. Even if the situation is still more complex than Gries supposes, his merit is that he has come up with a semantic principle. What was traditionally considered to be a purely syntactic rule (a pronominal direct object always takes construction 2, unless specially stressed) is now explained by Gries as a consequence of a semantic principle, i.e. a contextual and a conceptual constraint, which follow from the theory of the amount of consciousness needed to access a referent. Not yet present in Gries's approach is the insight that this semantic principle even overrides the Silverstein hierarchy: if an abstract noun clearly operates in an anaphoric context, it is equally easily accessible and allows construction 2 as in (12c). But if no overriding factors are active, the preferred construction with idiomatic particle verbs is construction 1 as in (12b).

A further factor reflected upon in Gries (1997, 1999) is the nature of the lexical item, i.e. the habitual or idiomatic sense of the verb. Thus the extreme difference between the literal meaning of *to pick up* in *to pick up a pencil* and its idiomatic sense in *to pick up a disease* is very obvious. Gries (1999: 127) himself discusses the intermediate case of *to pick up speed*, which he sees as an instance of metaphor, and not of idiom, since the figurative sense of *to pick up speed* is due to the abstract character of the noun *speed,* which also reduces the literalness of *pick up.* Indeed, this expression means 'increase speed', and obviously the metaphorised meaning of *up*, which is based on the conceptual metaphor MORE IS UP is at work here. A more idiomatic meaning is found in the 'get by chance' sense of *pick up* in expressions such as *pick up a disease/an accent/a habit*, etc. It is not fully idiomatic since the notion of 'by chance' seems to have arisen by implicature. What you pick up, becomes your possession. It is the metonymic principle ACTION STANDS FOR EFFECT OF ACTION that leads to *pick up*'s new sense of 'acquire'. Since negative possessions or properties are not desirable, you did not pick them up intentionally; so you can only have acquired them by chance or bad luck. It is not unlikely that each figurative particle verb has a story of its own and is, consequently, to be situated at a different point on the continuum from purely literal to purely idiomatic meanings. This hypothesis would also explain the variability in the judgments of native speakers.

As an overall conclusion from the previous discussion, we can support Gries's thesis that the alternation between the two structural possibilities (construction 1 and construction 2) applies unproblematically to the prototypical, literal meanings of the particle verb. But the fact remains that this distribution is far more complex with the extended, figurative meanings of these verbs. Gries (1999: 128, 130) argues that in the case of idiomatic constructions such as

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On the basis of this mini-test, it seems that we cannot star sentence 1, but should rather give it three question marks (???), representing highest dubitability. Sentence 4 receives two question marks (??), and one question mark (?) is not represented. If 9 out of 10 informants accept a sentence, it would be unfair to give it one question mark (?). It is clear from these variations in grammaticality judgments that corpus data, however important they are, cannot tell the whole story.

to lay down the law one will find construction 1 only, except with pronominal objects. This is obviously not the full picture. It does not even apply fully to the extreme cases of fully idiomatic, petrified, dead metaphorical particle verbs as in ??*He laid the law down*. Alongside these petrified, purely idiomatic particle verbs, we have a whole range of partly or globally metaphorised particle verbs, which explains the oscillations in speakers' grammaticality judgements. The further reaching conclusion is therefore the hypothesis, already hinted at before, that the two constructions are not just alternations, but independent templates. But this is food for thought in further research.[11] Another important conclusion following from the variation in grammaticality judgments is that a clear distinction has to be worked out between fully idiomatic, less idiomatic, and newly metaphorised particle verbs. Here a very refined approach to grammaticality judgments may be a most valuable source and tool for the further and deeper understanding of grammatical constructions, which may be seen as the indispensable complementary tool of corpus-based data. A first attempt has been made in Dirven (Forthcoming).

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