A constructionist approach to the teaching of phrasal verbs

SERGIO TORRES-MARTÍNEZ

Dispelling the verb+particle myth in multiword verb instruction

Introduction

The central issue of the present article is the analysis of phrasal verbs (hereafter termed multiword verbs [MWVs]) from the perspective of *construction grammars* (Goldberg, 1995; Suttle and Goldberg, 2011). As is well known, English MWVs present special challenges to L2 learners due, among other things, to the shapelessness of their conceptual components and the ensuing impossibility to arrive at equivalent word-meaning correspondences (mappings) in the learners' mother language (see Gillette *et al.*, 1999). This brings us to the first theoretical claim of this paper – namely, that MWVs (also termed phrasal verbs, verb-particle collocations, verb-particle combinations etc.) are lexical chunks that can be retrieved by speakers either as wholes, without special recourse to syntactic parsing, or as verb-particle semantic associations (Cappelle *et al.*, 2010). This idea is combined with the notion that MWVs inherit their syntax-semantics from prototypical *Argument Structure Constructions* (Goldberg, 2013a) within *Verb Argument Constructions* (VACs) frames. VACs are thus associated with prototype verbs like *'go', 'come', 'get', 'put'*, etc., to project their meaning upon less-frequent verbs occupying a *V-slot frame* (a verbal position). It follows that MWVs function as *hyponyms* that express specific semantic nuances not available in prototype verbs. For example, in the sentence 'Arya *scooped up* a rock and hurled it at Joffrey's head' (George R. R. Martin, *A Game of Thrones* [1996]), the verb *scoop up* suggests a *caused motion* usually conveyed by the verb **LIFT**, i.e. the prototype of the *simple transitive Verb Argument Construction*. From this vantage, it is suggested that a way to activate the weak verb-object interface[1] is through its assignation to specific prototypes *bootstrapping* (providing an initial basis for) both the conceptualisation of the MWVs and their potential mapping to specific words (which I term inherited surface forms).

Defining multiword verbs

I define multiword verbs as verb-particle sequences (or collocations) formed by the interaction of a lexical verb (LV) and a particle (a spatial adverb, a preposition or both). Depending on whether these collocations admit an intervening object between the lexical verb and its associated particle, MWVs can be further classified as either *continuous* or *discontinuous* lexical sequences. Moreover, these chunks are deemed to inherit their semantics from prototypical verbs within specific *Verb Argument Constructions* (VACs). Therefore, it is suggested that these verbs become accessible to L2 learners through long-term strengthening of contextualised language practice.

SERGIO TORRES-MARTÍNEZ holds a PhD in Applied Linguistics. He has created a number of tools designed to bridge the gap between technology and language teaching in Colombia. Among his main interests are interaction design, construction grammars, multimodality, translation semiotics, Content and Language Integrated Learning (CLIL), English for Academic Purposes (EAP) curricula design (English, French and German) and the definition of best practices in the teaching of conversational grammar. Email: surtr_2000@yahoo.es

A classification of MWVs

According to Quirk *et al.* (1985: 1150) MWVs can be divided into three major categories: *phrasal verbs* (transitive and intransitive), *prepositional verbs*, and *phrasal prepositional verbs*. An additional category (lexicalised sequences) comprises verbs associated with particles other than adverbs or prepositions.

Intransitive phrasal verbs

These verbs are composed of a lexical verb (LV) plus either a spatial adverb (ADV) or a preposition (PREP). Their structure can be rendered as in the formula: **LV + ADV/PREP:**

(1) a. 'Then I ***stood up*** abruptly'. (James Joyce, *Dubliners*)
   b. 'Above Jukes' head a few stars ***shone into*** a pit of black vapours'. (Joseph Conrad, *Typhoon*)

Transitive phrasal verbs

Transitive phrasal verbs take a direct object (O_d) that can either precede or follow the particle: **LV + O_d + ADV**, *or* **LV + ADV+ O_d**

(2) a. **Phrasal verb** (continuous): 'Inside were a few small, unclaimed packages, old station logbooks and records, and a cashbox. The robber ***scooped up*** <u>the box</u> [O_d] and ***counted out*** <u>the contents</u> [O_d]*'.* (Clive Cussler, *Night probe* [1981])
   b. **Phrasal verb** (discontinuous): 'Grinning, Steve shook his head. "One guy almost ***carved*** <u>me</u> [O_d] ***up*** with a rapier, but someone interrupted us"'. (Isaac Asimov, *Invader* [1994])

Free combinations

It is important not to confuse transitive phrasal verbs with '*free combinations*' (Quirk *et al.,* 1985: 1152). In free combinations, the lexical verb preserves its individual meaning thereby allowing for a substitution of the particle (adverb):

(3) 'Alvar ***headed OUT*** the huge armored door of Room 103, ***DOWN*** the corridor of the Terraforming Center, ***OUT*** the double doors that led to the outside, and ***INTO*** the morning'. (Isaac Asimov, *Utopia* [1996])

Moreover, in free combinations, the particle can be topicalised[2]:

(4) 'So ***OUT went*** the candle, and we were left darkling'. (William Shakespeare, *King Lear*)

Prepositional verbs

Structurally speaking, prepositional verbs are composed of a lexical verb plus a preposition that is lexically or semantically associated with it:

Type 1: LV+ PREP + (prepositional object) O_p

(5) 'Kildare's formulas ***raced through*** <u>my mind</u> [O_p]'. (Winter Ramos, *Game Over* [2013])

Type 2: LV+PREP + O_i+PREP + O_p

(6) **ANNE HATHAWAY**: '"Vanilla" image has ***robbed*** <u>me</u> [O_i] ***of*** <u>sex appeal</u>' (O_p). (*Daily Telegraph, Thursday 21 February 2013*)

Phrasal prepositional verbs

Phrasal prepositional verbs consist of a lexical verb followed by two particles, an adverb and a preposition. These verbs are restricted to informal English (Quirk *et al.,* 1985: 1160): **LV+ADV +PREP+O_d**

(7) '"Professor, we need the code. Can you speak?" Harrington's gaze found Jason's face. Fear shone there but not for himself. Those eyes ***flickered up toward*** the distant substation, ***toward*** his daughter'. (James Rollins, *The 6th Extinction: Sigma Force* [2014])

Lexicalised verbal forms

These type of MWVs are made up of a lexical verb plus particles other than adverbs or prepositions: **LV+ADJ+PREP+O_p**

(8) 'Don't ***play dumb with*** <u>me</u> [O_p], missy! Lucy called me. I know the whole story!' (Emily Giffin, *The One and Only* [2014])

MWVs as constructions

Constructionist approaches to language acquisition claim that language development draws on form-function pairings termed *constructions* (Goldberg, 1995, 2003, 2006, 2013a, b, 2016 [in press]), i.e. concrete-abstract instances of concepts (form-meaning pairings) that are learned by way of general cognitive mechanisms. As Goldberg (2013b: 479) points out, 'the ability to categorize exemplars, share information, cooperate, and anticipate upcoming events by making various types of predictions are all clearly directly advantageous to the individual or group and so may plausibly have evolved (. . .)'. These constructions include 'morphemes, words, idioms, partially lexically filled and fully general linguistic patterns'

(Goldberg, 2003: 219). Furthermore, '[c]onstructions specify the morphological, syntactic and lexical form of language and the associated semantic, pragmatic, and discourse functions' (Ellis and Ferreira-Junior, 2009: 370). (See Figure 1 for a summary of constructions).

Finally, the determinants of construction learning are *(i)* the frequency of specific forms in the input (Zipfian distribution), *(ii)* the prototypicality of meaning of most the constructions (their function), and *(iii)* the interaction of frequency and meaning for the emergence of form-function mappings.

MWVs and Argument Structure Constructions

Although MWVs exhibit complex syntax-semantics relations (determined by the lexical verb-particle interaction) their function as linguistic constructions does not condition the interpretation of more complex constructions. Consequently, regardless of their form or semantics, all verbs combine with specific super-constructions, called *Argument Structure Constructions* (ASCs) (Goldberg, 1995, 2003, 2013a) to yield up meaning. Argument Structure Constructions (e.g. intransitive, transitive, ditransitive, resultative, etc.) are defined as 'form-function pairings that relate abstract meanings with arrays of grammatical relations' (Goldberg, 2013a:437). For example, the ditransitive ASC subject+verb +object construction has the meaning X causes Y to receive Z (an illustration is given in Figure 2):

In this example, we can identify the verb *give* as a prototype inheriting its meaning from the ditransitive ASC. Alternately, it is possible to identify the ditransitive ASC even in *prepositional dative constructions* (Figure 3):

As is clear from Figure 3, a *prepositional dative construction* can be used to paraphrase the ditransitive ASC when the recipient (Y) is inanimate, a phenomenon termed 'recipient animacy constraint' (cf. Year and Gordon, 2009), and that occurs because ASCs 'do *not* specify phrase structure trees or word order directly' (Goldberg, 2013a: 453; emphasis in original).

MWVs and Verb Argument Constructions (VACs)

To reiterate the previous point, no construction contributes an absolute meaning conditioning the structure of the utterance it appears in. In particular, the interpretation of specific verbs is the result of our experience with basic level prototypes acquired through repeated exposure to different kinds of input (i.e. the language accessible to a learner during the language acquisition process). It follows that users of English (native and non-native) can interpret novel utterances such as 'The snake *sifs across* the floor' or 'The teacher *furths* the student the book'. Although we do not know exactly what the *jabberwocky verbs 'sif'* and *'furth'* mean , we can interpret *'sif'* as a verb of motion and *'furth'* as a verb involving the transfer of something (the book) from a *donor* (the teacher) to a *recipient* (the student) (cf. Ellis, Brook-O'Donnell and Römer, 2013). What we identify then is not the meaning of a particular verb '*projecting exclusively from its semantics*' (see Johnson and Goldberg, 2013a), but the underlying *verb argument constructions* (VACs) (events requiring a participant). Crucially, the frequency patterns of verbs occupying particular VACs are Zipfian (Zipf, 1935, 1949), since meaning within most VACs is inherited from prototypical verbs (cf. Ninio, 2006). As reported by Ellis and ferreira-Junior (2009: 373), the frequency
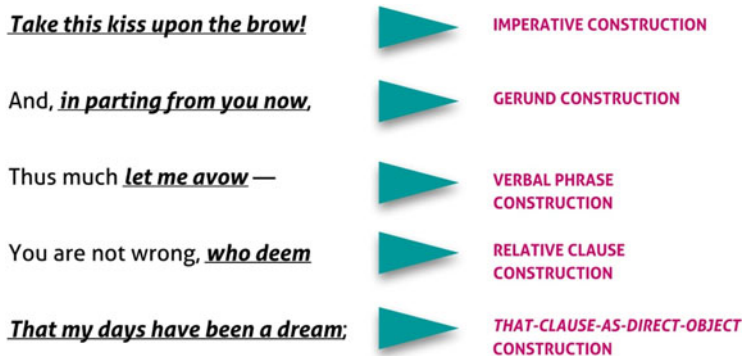

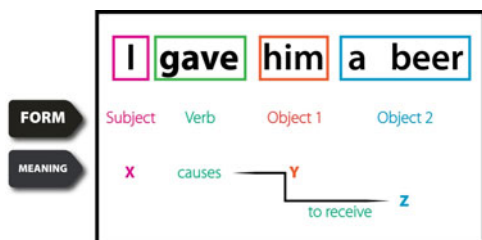Figure 1. A partial list of constructions in Edgar Allan Poe's *A Dream within a Dream*
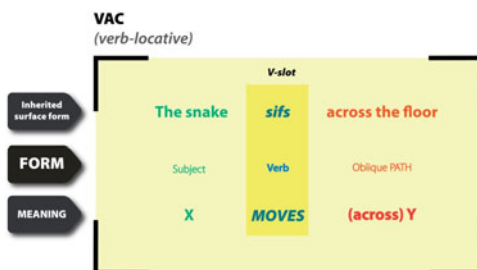
Figure 2. The ditransitive ASC

Figure 4. The *verb-locative* VAC

distribution of verb types in the VL construction is Zipfian. Thus, the verb *go* is twice more frequent than the second most frequent token in a list of verbs (*come*), three times as frequent as the third verb in the rank (*get*), etc. It should be noted, however, that Zipfian distributions 'are not required for category learning' (Boyd and Goldberg, 2009: 426).

MWVs as hyponyms

Although specific verb-argument constructions (VACs) exist independently of particular verbs filling V-slots in a sentence (cf. Ellis and Ferreira-Junior, 2009:371), some highly occurring verbs can be said to project their meaning onto other verbs occupying the same V-slots within usage-driven inheritance networks. It is unsurprising then that the nonsense verbs *sif* and *furth* bear traces of the meaning of *move* and *give* respectively (see Figures 4–5).

Therefore, the apparently complex syntax-semantics interface represented by MWVs accounts for how verbs map to events. For instance, the phrasal verb *scramble up* occupies the VAC (intransitive motion) of the verb *climb* (Figure 6).

As shown in Figure 6, the packaged manner of the action in English is expressed in the form of a hyponym of climb. In other words, the MWV *scramble up* expresses a **more specific manner of climbing**. The same holds for caused-motion VACs following the VOL pattern (Figure 7).
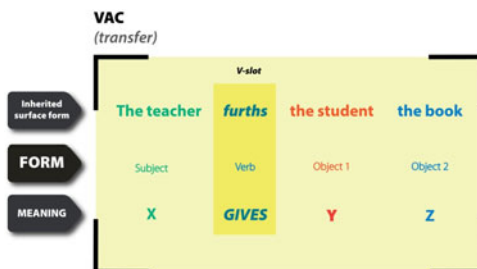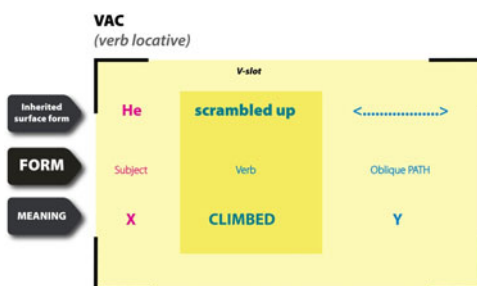

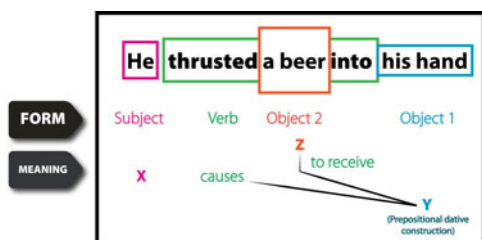Figure 5. The *transfer* VAC

Figure 6. The *MWV locative* VAC

Figure 3. The prepositional dative construction

Figure 7. The *MWV object locative* VAC

Oh, goodness, she *was jumping AHEAD of* herself.

The pretty girl I *fell in love WITH* turned into a beautiful woman

Mr. Littimer *walked FORTH*, reading a good book!

Jane *bundled UP on* the sleeping pallet.

I *came FOR* the food and was just curious

he *looked FORWARD to* a life with her

As soon as they *passed BEYOND* the door

Two fishermen *wandered OVER* from a small driftwood shack

he *had been lured ASTRAY* by the appeal of foreign shores

Water *swelled BELOW*, rising toward him.

She *bites OFF* the word.

We *left* a man *BEHIND* too, said Pitt

Blue sparks *writhed ACROSS* his hands like tiny snakes

The king *turned AWAY* with a shake of his head.

He *stepped FORWARD* and put his arms around her

I guess you'll *have to go AFTER* her

He *stepped INSIDE*

He thinks we *can get ALONG* again

Jake was *nodding ALONG*, even smiling.

I *walked BESIDE* him.

The storm clouds *peel APART*

The boat had hit shore and *run AGROUND*

I *turn* the volume *DOWN* and press Play

The eunuch *had hit UPON* a truth

Could he actually *get AWAY with* something like that?

Isherwood *teetered ABOARD* the water taxi

A lone mouse *hopped* feebly *ACROSS* the carpet

He walks *PAST* me and then jogs up the stairs.

He *took* a key *FROM* his belt

Ria wasn't one to *shrink FROM* a challenge.

He *melted INSIDE*

He *held* it *ALOFT*

Then I *went INTO* the castle to learn the truth

He *glanced ASKANCE at* Muriel with a lifted brow

She *stole* a glance *UPWARD*.

He *stepped ONTO* the sidewalk and approached them.

He *poured* knowledge *FROM* his mind to mine

Helen *parked IN FRONT* of the diner,

he sled *landed ON TOP* of them

A few streaks of clouds *floated OFF* high in the sky

LITERAL   **FIGURATIVE**

CONSTRUCTION 'move'

SEM

VL   X moves (to/from) Y
VOL X causes Y to move (to/from) Z
VO   X acts upon Y
VOO X causes Y to receive Z

SYN

Subject Verb Location PATH
Subject Object Location PATH
Subject Verb Object
Subject Verb Object1 Object2

Figure 8. A *hypernym family* featuring some of the MWVs associated with the prototypical verb *MOVE*. As shown, even figurative verb-particle collocations evoke, through their syntax-semantics, the verb *move* within a usage-driven inheritance network

In this case, the prepositional verb *fling against* is a hyponym of *throw*.

Most tellingly, the above account reveals a relationship between MWVs (functioning as hyponyms of certain prototype verbs) and *hypernyms*, i.e. common verbs from which more specific verbs inherit their semantics. In this sense, verb-particle collocations point to a variety of metaphorical instances used to extend a prototype verb's semantics and the way verbs relate to (virtual) objects. Ultimately, verbs acquire new meanings when combined with newly coined nouns.

What this tells us is that basic-template verbs can conform *MWV hypernym families*. By way of example, the verb *move* groups within inheritance networks some of the MWVs inheriting their meaning from this verb within specific VACs (see Figure 8).

As shown in Figure 8, my interpretation of the move-construction is expressed through the verb's semantics (SEM) and syntax (SYN) within several VACs. *'Move'* thus projects its prototypical semantics onto all the verbs occupying its corresponding V-slot. Crucially, regardless of whether a MWV is literal or figurative, a hypernym family can be posited. This basically goes to the idea that a better comprehension of, say, the manner of an action embedded within a

MWV, can be accessed when the underlying *hyponym-hypernym* relation is made explicit (see a subsequent section).

The MWV-VAC interface

In this section I shall analyse three VACs in relation to MWVs: *(i)* the *Verb Locative Construction (VL), (ii)* the *Verb Object Locative construction (VOL),* and *(iii) the Ditransitive Construction (VOO).*

The *Verb Locative Construction* (VL) implies an intransitive motion, i.e. X moves (to/from) Y (someone/something moves from one place to another or in a new direction):

(9) 'Right! I *pull over TO* the curb just before a traffic light and *storm out OF* the car'. (E.L. James, *Fifty Shades Darker* [2012])

The *Verb Object Locative construction* (VOL) projects a caused motion, i.e. X causes Y to move (to/from) Z (someone/something causes someone/something to move to a new place or direction):

(10) a. 'With his free hand Jack *took* the jar *OFF* the top shelf of the refrigerator'. (Steve Martini, *The List* [1997])[3]

b. 'The handmaid coming out to open the gate for him, he quietly pulls off his hat as a parting salute, and *goes AWAY* with no greater show of agitation than is visible in the effigy of Mr. Sapsea's father opposite'. (Charles Dickens, *The Mystery of Edwin Drood*)

Finally, the ditransitive construction (VOO) profiles *three participant roles*: an agent (Subject), a given theme (Direct Object) and a prepositional dative or an animate recipient (Indirect Object): X causes Y to receive Z:

(11) 'That would have made this arrangement perfect, but he'd settle for her running out tomorrow morning and *picking* him *UP* a fresh coffee cake from Mary Lou's'. (Julie Metz, *Perfection* [2009])

Parsing the *Inherited Surface Form*

Though VACs account for the MWV syntax-semantics interface, the semantic components of (motion) events (Talmy, 1978, 2000) must be taken into account in order to analyse the way MWVs map events onto *inherited surface forms* (Four of these events are plotted in Table 1).

As shown in Table 1, not only manner is encoded in English MWV verbs: Particles lexicalise *path* and *ground*, and objects serve as *figures* for *grounds*. This tightly knit interaction of MWVs with other constructions in an utterance circumscribes inherited

surface forms in terms of complex construction interaction (cf. Goldberg, 2016, in press).

Modelling MWV input

Let me now briefly explain how *interactionally modified input* can be introduced in the EFL classroom. Although the language acquisition hypothesis driving the present account is *interactionist* in nature - i.e. it relies on the analysis of the way instructor-peer or peer-peer modes of interaction in specific contexts can be used to improve L2 acquisition - the main focus here is not on a single pattern of interaction, namely the native-non-native speaker paradigm (see for example Torres-Martínez, 2014, for a complete description). Furthermore, unlike most interactionists working in the SLA field, I do not embrace the native speaker baseline as a means to explain non-native speakers' L2 acquisition (e.g. Long, 1981).

Importantly, as we shall see in in the next Section, corpus-driven language learning activities, such as data-driven learning (DDL) and paper-based data-driven learning (PbDDL) should hinge on *task-based language teaching* (TBLT) design principles whereby 'meaning is primary; there is a relationship to the real world; task completion has some priority; and the assessment of task performance is in terms of task outcome' (Skehan, 1996:8). By the same token, paper-based tasks should encompass both attention to form and function that facilitate the transition from input

Event	Definition	Example
Figure	The entity that causes a given event	'They were much too concerned with *dragging* him *off* the airplane'. (John Grisham, *Sycamore Road*)
Manner	The way a movement or transfer are carried out	' The vivid ten-second scene was seared into the wall of his consciousness, his earliest memory in life. Nothing came before or after it. It stood out alone, like the steeple of a town visited by a flood, *thrusting up above* the muddy water'. (Haruki Murakami, *1Q84*). [Packaged manner: '**emerge, surface violently**']
Path	The trajectory of the figure with respect to a spatial point of reference	'I *went* further [$_{pp}$ *up* the stairs] [$_{pp}$ towards him] and the thirst sang in me'. (Anne Rice, *The Vampire Lestat*).
Ground	The point of reference of the event's path	'(…) a rasping voice warned, "Leave him be," and a steel-clad hand *wrenched* him *away* [$_{pp}$ *from* the boy]'. (George R. R. Martin, *A Game of Thrones*).

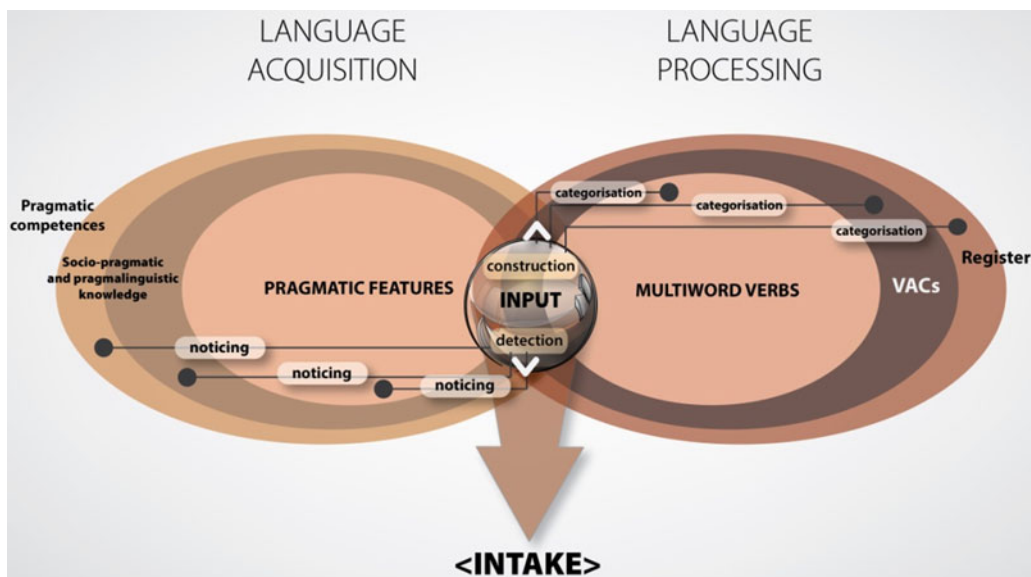Table 1. Semantic components of (motion) events

Figure 9. MWV input leading to intake within a constructionist framework

(its consciously noticed features) into *intake*[4] (Schmidt, 1993). This, of course, presupposes a sort of pedagogical intervention in the form of both focus on forms (*FonFs*; Long, 1991) in which learners' primary attention is guided towards linguistic forms, and focus on form (*FonF*, Long, 1991; Long and Crookes, 1992) in which meaning (message processing) is the main focus with an occasional shift to language form. The main theoretical framework behind FonFs is Anderson's *skill acquisition theory for support* (1983) and DeKeyser's process of transformation of *declarative knowledge* into *procedural knowledge* (2007). Declarative knowledge consists in the definition of specific constructions (form-function pairings) transformed through practice into procedural knowledge in communicative tasks. FonF, on the other hand, seeks to enhance learning through the combination of two constructs, namely *negotiation of meaning* and *negotiation of form* during collaborative communicative tasks, thereby inducing both *noticing* and *noticing the gap*. It should be noted, however, that learners' self-generated behaviour for the noticing of input should also be taken into consideration in L2 acquisition. One of the most comprehensive characterisations of learners' input processing tendency is Van Patten's (2004). He defines the process as '[those] strategies and mechanisms learners use to link linguistic form with its meaning and/or function' (2004:1).

As is given in Figure 9, the modelling of relevant MWV input within a constructionist framework stems from the convergence of several stages associated with both *language acquisition* and *language processing*. Therefore, the combination of both noticing tasks (based on pattern detection, involving pragmatic features, sociopragmatic knowledge, and pragmatic competences) and categorisation tasks (drawing on explicit instruction of MWVs associated with specific VACs and registers) are deemed to promote both grammatical and pragmalinguistic knowledge. *Intake* can thus be said to emerge from the selection of relevant input combining usage-based information with syntax-semantics relations. This process entails the integration of FonFs and FonFs leading to intake. Furthermore, a clear distinction between production tasks (like discourse completion tasks [DTCs], computer-mediated communication [CMC], etc.) and non-production tasks (judgement tasks, like rating, sorting, interpreting, etc.), should be made (cf. Bardovig-Harlig, 2010). The type of task-based learning invoked here should encompass meaningful input fostering the production of context-relevant language, as well as positive forms of feedback both direct (metalinguistic corrections) and indirect (like recasts, i.e., reformulations) (cf. Ellis, 2009), and, not least, the development of ad hoc materials that incorporate 'the application of theory to practice and practice to theory' (Tomlinson, 2012: 146).

A MWV-VAC acquisitional framework

The instructional road to the acquisition of MWVs as related to specific verb-argument constructions (VACs) is deployed in three phases: *(i) the conceptualisation phase, (ii) the realisation phase*, and *(iii) the consolidation-integration phase*. An illustration of the model is given in Figure 10. It can be seen that during *the conceptualisation phase*, the focus of instruction is on the development of both pragmalinguistic and sociopragmatic knowledge, i.e. instruction on rules of use (pragmatic development). Importantly, instruction is not viewed as an individual, one-way construct, but as the result of social interactions conducive to the development of *syntactic structure* (cf. Hatch, 1978: 404). Since, there is a connection between interaction and learning (Gass and MacKey, 2007: 176), the involvement of both *core participants* (teachers and learners) and *peripheral participants* (the extended community onto which the pedagogical action is projected) is crucial for the articulation of knowledge in context. This presupposes the construction of a set of highly situated, localised and bottom-up interactional skills. *The realisation phase* is thus accomplished when several *pragmatic constituents* are in place: *(1) the comprehension of implicatures* (of context-oriented language use), *(2) the recognition of the pragmatic appropriateness of MWVs*, and *(3) the production of pragmatically-relevant content*. The process just depicted is, of course, non-linear. Moreover, invisible variables such as interactionally-driven

performance are acknowledged. As Yano (2013: 26) points out, 'learning and teaching performance should not be attributed to individual causes, such as students' personality and capability [but] understood as highly collective phenomena among teachers and students'.

The consolidation of an ecological learning environment also entails a number of sociocognitive adjustments that promote the emergence of interactional models (cf. Torres-Martínez, 2014: 25–27).

Constructions in the classroom

Just as the previous sections laid out the foundation for a comprehension of MWVs from a constructionist perspective, this section analyses the implementation of constructions with views to their actual classroom exploitation. To this end, I explore two corpus-oriented approaches to MWV instruction: *(1)* Data-driven learning (DDL) and *(2)* paper-based data-driven learning (PbDDL).

Data-driven learning

Data-driven learning is defined as L2 learners' direct consultation of corpora for language acquisition purposes (Johns, 1991). According to this definition, language instruction is not based on the overt presentation of rules, but on *noticing*, i.e. the identification of *patterns* among large amounts of language samples. This constructivist approach to language learning is deemed to be *'natural'* in
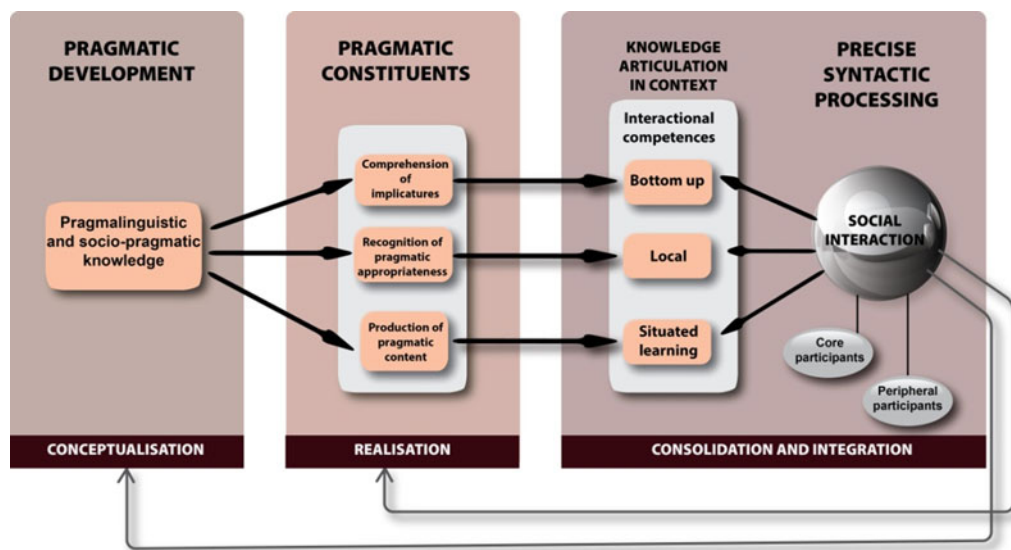
Figure 10. The MWV acquisitional framework

that it provides learners with a space to engage in hands-on corpus consultation to detect linguistic rules. Thus, for traditional DDL, explicit teaching of rules is considered an artificial intellectual activity that fails to promote 'noticing and consciousness-raising leading to greater autonomy and better language learning skills in the long term' (Boulton, 2010: 535). For the purposes of this paper, the conceptual framework of traditional DDL is problematic in four aspects: *(1)* DDL is defined as a fits-all-sizes approach that conflates the processing power of computers (to identify large amounts of language samples quickly) with relevant pedagogic input; *(2)* explicit grammar instruction is avoided, leaving out characterisation tasks (a necessary complement to noticing); *(3)* the computer skills necessary to use a concordancer and extract relevant information are taken for granted; *(4)* there is no clear link between descriptive linguistic analyses and principled pedagogical exploitation.

Using the concordancer

One of the advantages of direct corpus consultation is the possibility to gain access to large amounts of information in terms of frequency, surface, and semantic properties. Nevertheless, the task of unpacking the meaning of MWVs requires the development of basic consultation skills. Consequently, before dealing with what learners can do with a concordancer, it is necessary to define how they can do it. Indeed, this process entails:

(1) The selection of a suitable concordancer.
(2) The selection of the concordancer functions to be used.
(3) The instruction into how to compile a corpus.
(4) The instruction in the techniques to launch relevant searches.
(5) The definition of the best practice in the interpretation of the results.
(6) The definition of the extent to which this information can be linked to specific learning goals.

With regard to the first two steps, it becomes apparent at this point that some basic logics for the analysis of corpus data must be in place. For example how to use the KWIC (key word in context) display mode available in most concordancers (see the next Section), the procedure for the extraction of information from the spans, as well as the ability to compare/contrast the different linguistic contexts provided by the concordance lines.

For ease of explanation, I selected the *Corpus of Contemporary American English* (COCA; Davies,

2008), a freely-available corpus created by Mark Davies. The search functions for the analysis of MWVs in the COCA vary depending on whether we are looking for continuous or discontinuous MWVs, i.e. those allowing the placement of a direct object between the verb and the particle. For instance, in the case of prepositional verbs like *go on*, we first select the KWIC display mode, then the register (for example, spoken English), and simply type 'go on' to launch a search. The list of results (concordance lines) is displayed on the central panel providing contexts for comparison in terms of frequency, surface, and semantic functions. For discontinuous MWVs, a three-step procedure must be applied in order to facilitate the retrieval of results relevant to the analysis of MWVs. Such a procedure is summarised as follows:

1. For prepositional verbs, enter the verb lemma [**lexical verb**] plus [**RP***]. For example, if we want to search for the verb *go* plus all the particles associated with it, we type [**go**] [**RP***] (the wildcard* stands for any particle, see Figure 11). For other instances of *go*, we simply type 'going', 'went', or 'gone' in the lexical-verb slot:
2. When searching for the tokens of a phrasal verb with one intervening word, we type [**verb**]* [**RP***] (see Figure 12). As the reader may have inferred, the wildcard stands for any word placed between the lexical verb and its particle.
3. For *phrasal prepositional verbs* taking both a direct object and a prepositional object, the search looks like this: [**verb**] * [**RP***] * (see Figure 13).

It is important to note that the COCA search mode for MWVs may yield *false positives*, especially when the number of intervening words is up to three (see Garner and Davies 2007: 344–345). Alternatively, the COCA can be queried for MWV by simply typing a particle (*up, off, down, in, on*, etc.). (See Figure 14).

Paper-based DDL (PbDDL)

Paper-based DDL is a variation of computer-assisted DDL. Basically, it draws on printed concordance lines (exported from the concordancer to a word processing software) to detect patterns of language usage. Concordance lines are displayed in KWIC (Key word in context) mode, i.e. with target structures aligned vertically to the centre. The KWIC display mode is a concordance function used to determine lexicogrammatical
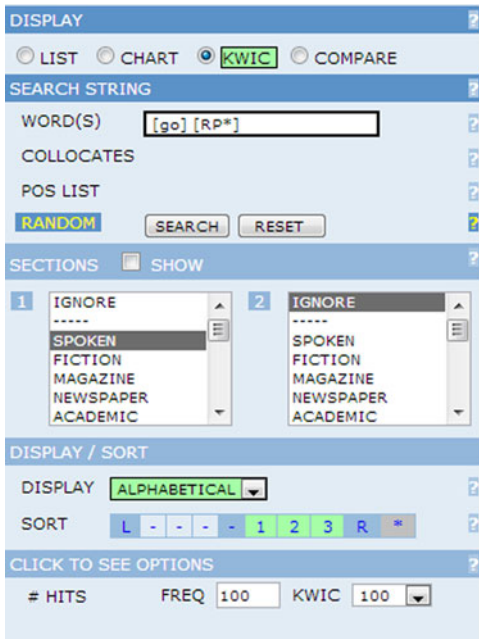
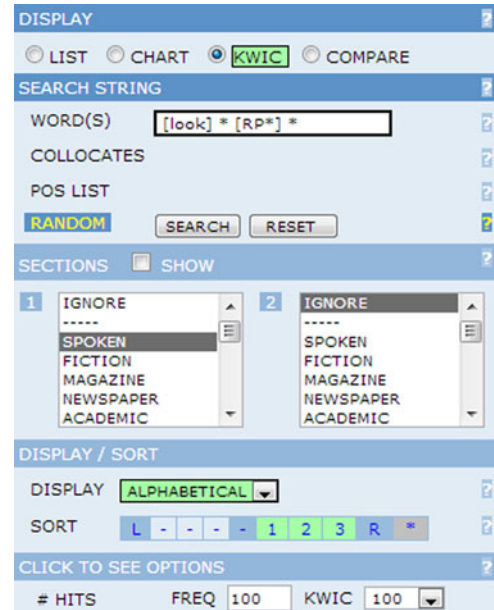Figure 11. The prepositional-verb search in COCA (KWIC display)

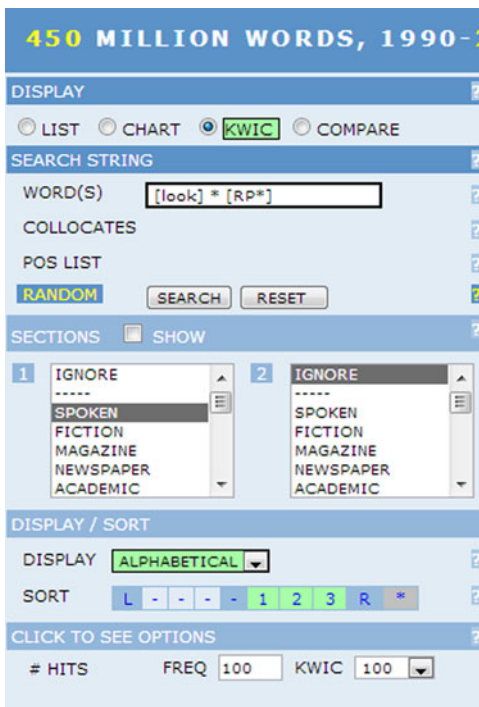

Figure 12. Phrasal-verb search in the COCA (KWIC display)

Figure 13. Phrasal-prepositional verb search in the COCA (KWIC display)

patterns based on position patterns on a span *to the right* and t*o the left* of a *node item*. This is illustrated in Figure 15 which shows a set of concordance lines for the particle *UP*. As shown, the lexical verb is placed on the *left span* with the particle placed at the centre of the concordance lines (the node). On the left span, we can also find all the objects placed between the lexical verb and the particle. The *right span* complements the information by displaying other particles associated with the lexical verb as well as prepositional objects or adverbials.

As can be seen from Figure 15, this type of reading is supportive of a development of noticing skills that may allow learners to zero in on collocational patterns of particular linguistic forms. It goes without saying that noticing tasks must be guided, have clear pedagogical objectives, and be supported by characterisation tasks, involving the categorisation of linguistic forms (cf. Torres-Martínez, 2014: 31). KWIC mode is therefore useful in the identification of collocation, colligation, semantic preference, and association. As regards the techniques to extract relevant, non-redundant information from a KWIC type of display in a concordancer, Sinclair (1999) suggests a 25-line focus, that is, the analysis of the first 25 concordance lines in terms of surface (collocation and colligation) and meaning patterns. From a corpus linguistic perspective this may yield relevant results. However,

Figure 14. Particle search in the COCA (KWIC display)

the technique of analysing iterations of 25 lines at a time (until no novel information can be extracted) does not square well with a pedagogical mindset. Especially in DDL tasks (computerised, non-paper-based) in which students interact directly with the concordancer, it is unrealistic to suppose that students will understand a given grammatical structure after exposure to a 25-line iteration and without the guidance of the instructor. Indeed, it is recommended that teachers chart a pedagogical territory for students by creating a meaningful link between frequency surface patterns, interpretation, and language learning objectives. An example is shown in Figure 16.

Conclusion

In evaluating the present effort to gain some purchase on the problem of conceptualising MWVs within a constructionist framework, we must bear in mind that no linguistic issue can be tackled prescriptively. Nevertheless, the constructionist

line	Left	Node	Right
70	ird floor of a glass-and-aluminum tower that *rose*	up	*forty-one stories above Manhattan's fabled Fifth*
88	tt, the yuppie scumbag who seemed to have *bubbled*	up	*from the fiery depths of yuppie hell*. Sneaking p
101	ing. It towered above everything, seeming to *rise*	up	*to the heavens and scrape the sky*. It was a sigh
130	atening to personally kick my ass if I didn't *pay*	up	. I had considered changing my phone number, but
148	twelve." Then he sat down at his own desk, *picked*	up	*a copy of The Wall Street Journa*l, and put his bl
150	desktop and started reading. I was about to *pick*	up	*the phone* when I felt a beefy hand on my shoulder
150	when I felt a beefy hand on my shoulder. I *looked*	up	, and with a single glance I knew it was Mark Han
170	n't gonna hire me. There were twenty people *lined*	up	*for* interviews, so I figured I better do somethi
189	ing for more words of wisdom, but apparently *came*	up	*short*. "Well, that's about it," he said. "That's
203	d up to the elbows; and one by one brokers *picked*	up	*their phones and started dialing*. I picked up my
203	ked up their phones and started dialing. I *picked*	up	*my own phone and started dialing too*. Within min
267	il. Then he repeated the process and *Hoovered one*	up	*his left*. I was astonished. Couldn't believe it!
299	old me that in just a few short years I would *end*	up	owning the very restaurant I was now sitting in
301	half the other brokers at LF Rothschild would *end*	up	working for me, I would have said they were crazy
317	o an entire generation of young Americans. I *grew*	up	*in a middle-class family in Bayside, Queens*, wher
328	dad who now drives them to soccer games and *shows*	up	*at their parent-teacher conferences* and stays hom
361	screaming frantically, "Jesus Christ, boss! *Pull*	up	! *Pull up* ! We're gonna crash! Holy shit!" Then we
373	y young stockbrokers. Somehow, we'd *ended*	up	*in the Presidential Suite at the Helmsley Palace*,
397	e the red-and-white-striped smokestacks that *rose*	up	*from out of the wealthy Jewish suburb of Rosly*n.
448	then I felt a tremendous gust of air, so I *craned*	up	*my neck* to watch the helicopter ascend into the
473	ationalizing some more, until I was able to *build*	up	*a healthy head of righteous resentment*. Yes, I t

Figure 15. Concordances from Jordan Belfort's *The Wolf of Wall Street*. The concordance lines were extracted using *KWIC 5* (http://www.chs.nihon-u.ac.jp/eng_dpt/tukamoto/kwic_e.html), a freeware corpus analytical tool, and exported to an *Excel Spreadsheet* for the linguistic analysis

Multiword Verbs

Source: *Hunger Games: Catching Fire*

ACTIVITY
Identify the *multiword verbs* in the concordance lines below. Say which verbs express an *intransitive motion (VL)*, a *caused motion (VOL)*, or a *simple transitive action (VO)*. Discuss your answers with a partner.

Line	Left	Key	Right	VAC
1	Hey mitch, *wake*	up	. It's Tour Day.	
2	and then we *wrap it*	up	in The Capitol.	
3	That about *sums me*	up	. No, there's m	
4	, smile. *Stand*	up	straight. You're on camera.	
5	knowing that it in no way can *make*	up	for your loss,	
6	Come on. *Shut*	up	. In all my yea	
7	This trip? Girl, *wake*	up	. This trip doe	
8	Here, they're just *throwing it*	up	to stuff more in.	
9	It's bad enough that you *marked*	up	her face on the	
10	your life and you only just now *show*	up	? It means we have	
11	Tributes, *mount*	up	. No waving and	
12	Don't invite him over. He'll *drink*	up	your liquor.	
13	Because the force field is *taking*	up	too much energy.	
14	I'll tell them you're still *making*	up	your mind. Di	
15	It has to *go* more	up	. Oh, pretty,	
16	Okay, *hold*	up	. Hold up. Her	
17	Please, *wake*	up	. No. 1284	
18	You... Do you wanna *wake*	up	? Yeah.	
19	our backs protected. We should *set*	up	camp. Take tu	
20	Hey. *Drink*	up	What is it?	
21	Peeta, please, *stand*	up	. We have to go.	
22	, you wanna see something? *Look*	up	. Look. Look a	
23	dickory dock. The mouse *ran*	up	the clock.	
24	*Change it*	up	. Spin it. Com	
25	we know the wire's not gonna *burn*	up	Because I in	

Figure 16. An opinion-exchange paper-based DDL task. The task typology (see Pica, Kanagy and Falodun, 1993:19), utilizes concordance lines (in this case from the movie *Hunger Games: Catching Fire*) to provide learners with either one-way or two-way interactional possibilities.

framework counts prominently among the multiple approaches to MWV conceptualisation in that it successfully accounts for form and meaning within a usage-based context in which functional motivations defuse *a priori* linguistic constraints (cf. Goldberg, 2013b, Goldberg, 2016 [in press]). Therefore, the crux of the MWV-VAC interface presented in this paper is to incorporate meaning, form, and context as determinants of exemplar learning 'without appeal to mysterious stipulations' (Goldberg, 2009:219). This is posited also to underlie the theoretical avoidance of a suggestion that MWVs condition the semantics of the utterances they appear in, a contention that would militate against their teachability.

For EFL, the task is therefore couched in terms of the need to make these underlying relations salient to students. The ecological circuit drawn in this paper for the benefit of learning centers therefore

on the participants' interaction around tasks modelled upon specific *input-to-intake* criteria. As suggested, corpus-driven language learning tasks, such as DLL and PbDDL may provide learners with sufficient exposure to form and meaning, which can be further elaborated in the form of communicative activities.

Putting all this together, the task of learning a MWV is not so different from that of learning one-word verbs. Both processes entail the identification of participants and arguments as a part of the broader process of making generalisations about form and meaning (Goldberg, Casenhiser and White, 2007). As a way to overcome the difficulties of associating a lexical verb with a particle, MWVs should be then analysed as chunks occupying specific VACs. Furthermore, the comparison across the events depicted by both *hypernyms* and *hyponyms* should be emphasised in order to increase the *imageability*[5] of MWVs.

Notes

1 Verbs, unlike nouns, possess no real referents in the outside world, their function consisting in mapping fuzzy relational components (Gentner and Boroditsky, 2001) not immediately accessible during the processing of both the L1 and the L2.

2 Preverbal particle positions were common in Old English: '*Up* ic **gonge**, ofer þe stæppe': '*Up* I **went**, over the steppe'. (*Metrical charm 5: For Loss of Cattle* <http://www.sacred-texts.com/neu/ascp/a43_05.htm>)

3 No distinction is made in this paper between VL/VOL constructions and REMOVAL constructions. A removal construction is one in which the preposition lexicalises an intransitive (self) removal action of the subject from an event's *path* (a) or the removal of a direct object (*figure*) from a *ground* (b):

a. 'Forthwith upright he ***rears from*** [PP ***off*** <u>the pool</u>[GROUND]]' (John Milton, *Paradise Lost*)
b. 'She calls the doctor sir Peter Teazle and ***picks*** buttercups[FIGURE] [PP***off*** <u>the quilt</u>[GROUND]]'. (James Joyce, *Ulysses*)

4 Intake can be defined as the portion of input that learners can process and utilise as a basis for L2 development.
5 According to Paivio *et al*., (1968), *imageability* is the potential a word has to evoke a sensory-related mental picture.

References

Anderson, J.R. 1983. *The architecture of cognition*. Cambridge, MA: Harvard University Press.
Bardovi-Harlig, K. 2010. 'Exploring the pragmatics of interlanguage pragmatics: Definition by design.' In A. Trosborg (ed.). *Pragmatics across languages and*

cultures (Vol. 7 of Handbooks of pragmatics). Berlin: Mouton de Gruyter, pp. 219–59.

Boulton, A. 2010. 'Data-driven learning: Taking the computer out of the equation.' *Language Learning* 60(3), 534–72.

Cappelle, B., Y. Shtyrov & Pulvermüller, F. 2010. 'Heating up or cooling up the brain? MEG evidence that phrasal verbs are lexical units.' *Brain & Language* 115, 189–201.

Davies, M. 2008. *The Corpus of Contemporary American English: 450 million words,* 1990-present. Online at <http://corpus.byu.edu/coca/>

Dekeyser, R.M. 2007. *Practice in a second language: Perspectives from applied linguistics and cognitive psychology*. New York, NY: Cambridge University Press.

Ellis, N.C. & Ferreira-Junior, F. 2009. 'Construction learning as a function of frequency, frequency distribution and function.' *The Modern Language Journal* 93(3), 370–85.

—., M. Brook-O'Donnell & Römer, U. 2013. 'Usage-based language: Investigating the latent structures that underpin acquisition.' *Language Learning* 63(S1), 25–51.

Ellis, R. 2009. 'Task-based language teaching: Sorting out the misunderstandings.' *International Journal of Applied Linguistics* 19, 221–46.

Gardner, D. & Davies, M. 2007. 'Pointing out frequent phrasal verbs: A corpus-based analysis.' *TESOL Quarterly* 41, 339–59.

Gass, S. & MacKey, A. 2007. 'Input, interaction, and output in second language acquisition.' In B. VanPatten & J. Williams (eds.). *Theories in second language aquisition: An introduction*. Mahwah, NJ: Lawrene Erlbaum, pp. 175–200.

Gentner, D. & Boroditsky, L. 2001. 'Individuation, relativity and early-word learning.' In M. Bowerman & S. Levinson (eds.). *Language acquisition and conceptual development*. Cambridge University Press, pp. 215–56.

Gillette, J., H. Gleitman, L. Gleitman & Lederer, A. 1999. 'Human simulations of vocabulary learning.' *Cognition* 73, 135–76.

Goldberg, A. E. 1995. *Constructions: A construction grammar approach to argument structure*. Chicago: Chicago University Press.

—. 2003. 'Constructions: A new theoretical approach to language.' *Trends in Cognitive Science* 7, 219–24.

—. 2006. *Constructions at work: The nature of generalizations in language*. Oxford: Oxford University Press.

—. 2009. 'Contructions work.' *Cognitive Linguistics* 20(1), 201–24.

—. 2013a. 'Argument structure constructions versus lexical rules or derivational verb templates.' *Mind & Language* 28(4), 435–65.

—. 2013b. 'Explanation and constructions: Response to Adger.' *Mind & Language* 28(4), 479–91.

—. 2016 (in press). Tuning in to the verb-particle construction in English. In L. Nash and P. Samvelian (eds.). *Approaches to Complex Predicates*. Leiden: Brill.

—., D.M. Casenhiser & White, T.R. 2007. 'Constructions as categories of language.' *New Ideas in Psychology* 25, 70–86.

Hatch, E. 1978. 'Discourse analysis and second language acquisition.' In E. Hatch (ed.). *Second language acquisition: A book of readings*. Rowley, MA: Newbury House, pp. 401–35.

Johnson, M.A. & Goldberg, A. 2013. 'Evidence for automatic accessing of constructional meaning: Jabberwocky sentences prime associated verbs.' *Language and Cognitive Processes* 28(10), 1439–52.

Long, M.H. 1991. 'Focus on form: A design feature in language teaching methodology.' In K. de Bot, R. Ginsberg & C. Kramsh (eds.). *Foreign language research in cross-cultural perspective*. Amsterdam, the Netherlands: John Benjamins, pp. 39–52.

—. & Crookes, G. 1992. 'Three approaches to task-based syllabus design.' *TESOL Quarterly* 26, 27–56.

Ninio, A. 2006. *Language and the learning curve: A new theory of syntactic development*. Oxford: Oxford University Press.

Paivio, A, J.C. Yuille & Madigan, S.A. 1968. 'Concreteness, imagery and meaningfulness values for 925 nouns.' *Journal of Experimental Psychology* 76, 1–25.

Pica, R., R. Kanagy & Falodun, J. 1993. 'Choosing and using communication tasks for seccond language research and instruction.' In S. Gass & G. Crookes (eds.). *Task-based learning in a second language*. Clevedon : Multilingual Matters.

Quirk, R., S. Greenbaum, G. Leech & Svartvik, J. 1985. *A comprehensive grammar of the English language*. London: Longman.

Schmidt, R.1993. 'Awareness in SLA.' *Annual Review of Applied Linguistics* 13, 206–26.

Sinclair, J.M. 1999. 'A way with common words.' In H. Halsegård & S. Oksefjell (eds.). *A study in honor of Stig Johansson*. Amsterdam: Rodopi, pp. 157–175.

Suttle, L. & Goldberg, A. 2011. 'The partial productivity of constructions as induction.' *Linguistics* 49(6), 1237–67.

Talmy, L. 1978. 'Figure and ground in complex sentences.' In J. Greenberg (ed.). *Universals of Human Language, Vol. 4*. Stanford, CA: Stanford University Press, pp. 625–649.

—. 2000. *Toward a cognitive semantics, Vol. 1. Concept structuring systems*. Cambridge, MA: MIT Press.

Tomlinson, B. 2012. 'Materials development for language learning and teaching.' *Language Teaching* 45(2), 143–79.

Torres-Martínez, S. 2014. 'Introducing conversational grammar in EFL: A case for hedging strings.' *English Today* 30(2), 24–32.

VanPatten, B. (ed.). 2004. *Processing instruction: Theory, research, and commentary*. Routledge, pp. 5–32.

Yano, K. 2013. 'The science of human interaction and teaching.' *Mind, Brain, and Education* 7(1), 19–29.

Year, J. & Gordon, P. 2009. 'Korean speakers' acquisition of the English ditransitive construction: The role of verb prototypes, input contribution, and frequency.' *The Modern Language Journal* 93(3), 399–417.

Zipf, G. K. 1935. *Psycho-biology of language*. Boston, MA: Houghton Mifflin.

—. 1949. *Human behavior and the principle of least effort*. Reading, UK: Addison-Wesley.