Abstract: The current article presents a case for a constructionist turn in pedagogical grammar. To that end, the framework termed Applied Cognitive Construction Grammars (ACCxG) is introduced as a means to arrive at a systematic characterization of linguistic constructions in general and of phrasal verbs (PVs) in particular. Hence, PVs are defined as motivated pairings of form and meaning (constructions) embedded in semantic networks in which metaphorical meanings are motivated by more basic ones. In order to illustrate this proposal, a classification of PVs (which is deemed to align with L2 learners’ robust category formation abilities) is introduced. Furthermore, the tenets of a constructionist task-based type of pedagogy are outlined as a proposal for further research in the field of pedagogical construction grammar.

Keywords: Applied Cognitive Construction Grammar, Argument Structure Constructions, Constructions, Paper-based Data-Driven Learning, phrasal verbs, PV-Indexical Schemas, Task-Based Language Teaching

Resumen: El presente artículo aboga por una redefinición construcccionista de la gramática pedagógica. Según la Gramática de Construcciones Cognitiva Aplicada (GCCA), los verbos frasales (VPs) pueden aprenderse a través de la asociación de las habilidades cognitivas de los estudiantes junto con el input. En este contexto, los VPs se definen como asociaciones de forma y sentido motivadas por construcciones abstractas en virtud de las cuales significados específicos se derivan de otros más básicos dentro de redes herencia semántica. A fin de ilustrar dicha propuesta, se introduce una clasificación construcccionista de los VPs orientada a potencializar las habilidades cognitivas de los estudiantes de segunda lengua. Asimismo, se presenta los fundamentos de una pedagogía basada en tareas (Task-based Language Teaching) como parte esencial de la GCCA.

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Palabras clave: Construcciones Argumentales Estructurales, Gramática de Construcciones Cognitiva Aplicada, Construcciones, Paper-based Data-Driven Learning, PV- Indexical Schemas, Task-based Language Teaching, verbos frasales


Schlüsselwörter: Angewandte Kognitive Konstruktionsgrammatik, Argumentstrukturkonstruktionen, Konstruktionen, Paper-based Data-Driven Learning, Partikelverben, Task-based Language Teaching

1 Introduction

The present paper aims to contribute to the burgeoning fields of both Applied Cognitive Linguistics (Boers and Lindstromberg 2008; Holme 2012; Huong Nguyen 2005; Kristiansen, Achard, Dirven and Ruiz de Mendoza Ibáñez 2008; Newby 2015; Pütz 2007; Pütz, Niemeier and Dirven 2001; Tyler 2012; Tyler, Mueller and Vu 2011), and Pedagogical Construction Grammar (De Knop and Gilquin 2016; Holme 2012; Torres-Martínez, 2015, 2016). The task undertaken by both frameworks is to open up the way to explaining the link between language instruction and the broader cognitive substrate mediating the human construction of reality. That being said, the next step should be to lay out an inventory of English constructions to be analyzed against the backdrop of an applied constructionist approach. However, since this is not possible due to space limitations, I will confine my attention to phrasal verbs (PVs) given the numerous difficulties they pose to L2 learners. Admittedly, while the precise neurolinguistic source of difficulty in the learning of these items is yet to be established (Blais and Gonneman 2013: 11), it is clear that one of the obstacles learners and teachers experience when confronted with associations of verb and particle is the impossibility to establish a systematic connection between form and function. As a result, both the
lexical and syntactic variability of PVs, as well as the unpredictability of the semantic weight of either the verb or the particle (sometimes particles are simply “meaningless”), or of the PV and the sentence in which it appears, conspire against the generalizability of these constructions during language production. This is reflected by traditional classifications of phrasal verbs (see Torres-Martínez 2016:8 for a review) which still view PVs as separate entities isolated from the lives and experience of speakers. However, before going any further in a constructional inquiry of PVs, it is first necessary to refer briefly to the nature of the constructionist approach endorsed in this article. On the theoretical side, the notion of Construction Grammar (CxG) is used as an umbrella term to refer to a family of approaches (see Croft 2007; Croft and Cruse 2004; Goldberg 2006; Langacker 2005) rather than to a monolithic theoretical framework. Though one of the stitches that holds together all constructionist approaches is the view of language as usage-based (i.e. it evolves out of contextualized usage), and therefore as “an integral facet of cognition” (Langacker 2008a:8), labels such as Applied Construction Grammar (De Knop and Gilquin 2016:8), or Applied Construction Grammar (De Knop and Gilquin 2016:14) are somewhat slippery for any systematic use. What is required, then, is a framework that brings psychological plausibility to the fore. In this sense, it is claimed that Cognitive Construction Grammar (CCxG; Goldberg 2006:214), lines up explicitly with the goal to “emphasiz[e] that language relates to our conceptual world and our human experience in such a way that every grammatical construction reflects its conceptual experiential value” (Pütz 2007:1142). In order to comply to this premise, the emergence and further consolidation of an Applied Cognitive Construction Grammar (ACCxG) framework (Torres-Martínez 2016) depends on the definition of rational, empirically-driven language teaching designs related with pedagogical grammar and, more broadly, with the Applied Linguistics commitment to tackle real-life, language-related problems that “surface first in language teaching and learning” (Kaplan 2010:26). Granted, the theoretical underside of ACCxG meshes well with key claims regarding the many ways language and cognition are linked. Nevertheless, since ACCxG is not formalistic but essentially descriptive, its investment in a characterization of the brain as possessing “a highly differentiated mental subsystem specific for language” (Rothman and Iverson 2008:272) is less than apparent. Since “what makes language possible is a certain combination of prerequisites for language, including our pro-social motivation and skill” (Goldberg 2016a:8), ACCxG argues for a usage-based description of language that is both psychologically plausible and pedagogically sound.

As might be expected, this raises concerns about the validity of some ACCxG’s claims in the context of the functional design of applied linguistic instructional artifacts, especially because the source discipline of ACCxG is psycholinguistics.
(a sub-field of cognitive science). The irony is that, whereas psycholinguistic research has proved to be an efficient validator of the “constructs proposed by linguists” (Phillips and Wagers 2007:239), its contribution to language teaching and learning in real-life settings has been flat-out ignored, following a resilient division of work whereby “problems, like insights, are somehow there, that somebody in the real world supplies a problem, the linguist supplies an insight, and the applied linguist matches them up” (Widdowson 2000:31). For one thing, Applied Linguistics (AL) has traditionally striven for a definition of the systematic means to arrive at expeditious solutions to language issues. This requires rules and items by which to measure acquisition, the ultimate goal being the development of a competence to be measured in terms of native-like performance. In addition, linguistic levels associated with specific instructional artifacts are often arbitrarily assigned on the basis of notions like interlanguage development in the acquisition and use of the second language. In sum, as De Bot (2000:225) points out,

[the psycholinguistic interest would be in the processing mechanisms involved in using more than one language and the acquisition of additional languages. The AL interest would be in understanding why language learners behave the way they do, or in other words, what the mechanisms are for L2 use and acquisition.]

This said, it becomes evident that some of the premises of ACCxG run counter to the systematic (though still fragmentary) insights of AL. Yet as Schuman (2010:258) observes, “[w]hen one field attempts to enhance its knowledge of a phenomenon by incorporating information from another field, it may amplify its understanding, but it must also face the problems arising from the adopted field”. This amounts to the claim that ACCxG, while no magic bullet, is “a piece of a larger whole” (Ellis 2006) which does offer teachers and learners a coherent account of just how cognition shapes human experience with language.

Moreover, this approach opens up the classroom space beyond its physical and ideological walls. Whether a sort of pedagogical Cognitive Construction Grammar reflects either “an absence of practical solutions”, a set of “patterns that suggest parts of the solution”, or a transitory incapability “of developing complex models leading to genuine solutions” (Kaplan 2010:26), is still to be confirmed both theoretically and empirically.

At this point, the question some may ask is why one should adopt CCxG as a source discipline for a pedagogical version of Construction Grammar. To reiterate an earlier point, at the heart of CCxG is the claim that psychological plausibility and not formal generalization is the ultimate goal of any applied constructional analysis worth its salt. This apparently simple assertion sets CCxG apart from other constructionist approaches which seek to arrive at either fundamental
grammatical description (e.g. Cognitive Grammar), or observational and descriptive adequacy (e.g. Sign based Construction Grammar, Sag 2012). Inevitably, the adoption of a psychological approach carries implications for pedagogical grammar. For one thing, the purpose of an ACCxG-inspired pedagogy is not to arrive at fine-grained grammatical fundamentals that can be dissected in the classroom, but to account for speakers’ usage during real-life instruction in order to trace the various ways learners offload their cognitive skills onto classroom tasks. What is needed then is a plausible description of language processing and learning that keeps tethered to reality while paying close attention to how general cognitive mechanisms and the input combine to make up meaning. To sum up, the present outlook draws on four tenets: 1) that language is learned through the conjunction of general cognitive mechanisms and the input in a context of usage; 2) that language is made up of form-function pairings (constructions); 3) that prototypical exemplars motivate metaphorical extensions within constructional inheritance networks; and 4) that syntactic constructions (Argument Structure Constructions, ASCs) exist independently from the verb’s semantics. The latter conceptualization has important bearings on the characterization of PVs, thus:

1. PVs are conceptualized at the level of an abstract, underspecified PV construction (Gilquin 2015; Goldberg 2016; Torres-Martínez 2015, 2016).
2. PVs are constructions (pairings of form and function).
3. PVs are *motivated* through *metaphorical extensions*.
4. PVs are *embodied*, that is, they reflect specific body schemas entrenched linguistically in specific communities through usage, thus: “[m]eaning is conceptualised from a mind that is an extension of the body and through a body that is part of the mind” (Holme 2012:8).
5. Embodied cognition presupposes that PV meanings overlap those of syntactic constructions by way of a mapping of words to events or objects (indexical relations, Glenberg and Robertson 1999:1).
6. Such mappings are possible because “syntax is meaningful, just as lexical items are” (Langacker 2008b:8).
7. PVs are grouped into four main categories defined by phrasal-verb-ASC attachment patterns: 1) verb-locative (VL), 2) transitive (verb-object, VO), 3) transfer or caused motion (verb-object-locative, VOL), and 4) ditransitive (verb-object-object, VOO) (see Torres-Martínez 2016).

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1 In contrast to generative SLA approaches, ACCxG rejects any sort of “genesis of [an] internal grammatical system of the learner” (Slabakova, Leal and Liskin-Gasparro 2014:605) after the exposure to relevant input.
Framed in this way, PVs are analyzed in the light of their attachment to the syntactic constructions they occur in. Of necessity, this analytical shift requires a clear-cut description of the abstract syntactic constructions (Argument Structure Constructions) to which specific PVs attach, which facilitates the transition from lexis to syntax for the comprehension of the various ways PVs reflect underlying semantic patterns. This is possible because speakers are prone to conceptualize the world through forms of embodied language determined by the architecture of our bodies (involving, for example, experiences with path, trajectory, and containment). These experiences are translated linguistically as metaphorical extensions serving as a reflection of the unique anatomical configuration of human beings. For example, human bipedal locomotion (based on terrestrial locomotion experience) constrains motion-related language to the extent that even metaphorical extensions echo more literal experiences. This is particularly obvious in languages which use particles to encode trajectory and direction, termed satellite-framed languages (Talmy 1991, 2000):

(1)

<table>
<thead>
<tr>
<th>Language</th>
<th>Example</th>
<th>Annotation</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>“My mom is a very outspoken person who really <strong>stands up</strong> for herself and others (...)” (Eva Amurri, <em>Susan Sarandon’s Daughter Eva Amurri Martino Forges Her Own Path</em>, 2016, <a href="https://www.youtube.com/watch?v=ES_XwIjorqc00:00:53%E2%80%9300:00:57">https://www.youtube.com/watch?v=ES_XwIjorqc00:00:53–00:00:57</a>)</td>
<td>metaphorical intransitive motion</td>
</tr>
<tr>
<td>Danish</td>
<td>“Solen <strong>stod op</strong> i dag kl. 8.33 og <strong>går ned</strong> kl. 15.50. (<a href="http://ordnet.dk/korpusdk">http://ordnet.dk/korpusdk</a>)”</td>
<td>metaphorical intransitive motion</td>
</tr>
<tr>
<td>Icelandic</td>
<td>“Myndin <strong>kom út</strong> árið 2006 og átti miklum vinsældum að fagna” (<a href="http://www.visir.is/forsida">The Devil Wears Prada fagnar áratugar afmæli, http://www.visir.is/forsida</a>, July 1, 2016)</td>
<td>metaphorical intransitive motion</td>
</tr>
<tr>
<td>Swedish</td>
<td>“Lågorna <strong>flammade</strong> ommedelbart <strong>upp</strong>” (Stig Larsson, <em>Flickan som leckte med elden</em>, 2015)</td>
<td>metaphorical intransitive motion</td>
</tr>
</tbody>
</table>
As can be gathered from the above examples, particles encode different forms of path/directional information including a variety of geometries of ground objects,\(^2\) tied up with metaphorical kinetics (the cause of motion of either the body or an entity endowed with motional attributes), which ultimately facilitates the processing of an event through its related sensory-motor features (Taylor and Zwaan 2009). In particular, abstract motion is a productive strategy to embody static scenes through dynamic conceptualizations (Langacker 1986). As Coventry, Tenbrink and Bateman (2009:1) observe, “expressions such as I’m over the moon and I’m really down illustrate that positive and negative emotional states are often associated with high and low positions respectively, while expressions such as I’m in the doldrums or It’s beyond me rely on spatial constructions of ‘containment’ and current ‘mental’ position”. Further, “[t]hese sensory-motor features are part of our embodiment, they structure our concepts, they play out in time” (Ellis 2013:374). In other words, language is “woven into action” (Pulvermüller, Cappelle and Shtyrov 2013:410), and “learned from participatory experience of processing language during embodied interaction in social and cultural contexts where individually desired outcomes are goals to be achieved by communicating intentions, concepts, and meaning with others” (Ellis, Römer and Brook O’Donnell 2016:25).

Of course, not all verb-particle combinations express motion, at least in the explicit sense of an entity moving or being moved across a physical or metaphorical space. Transitive phrasal verbs can also express other body schemas “robustly implanted in the brain” (Maouene et al. 2016:273), such as factual or metaphorical hand action (e.g., unimanual or bimanual grasping and reaching) involving, for example, patterns of muscle recruitment for finger flexion, closing, or extension:

\[(2) \text{“By floating around the office, he can overhear conversations and string them together to make better decisions” (FORTUNE Magazine, 2015).}\]

Clearly, regardless of the body schemas involved, the underlying semantics of PVs can be accessed through a focus on the way these constructions are motivated as part of our conceptual system.

The rest of the paper is divided as follows. Part two offers a definition of constructions and Argument Structure Constructions (ASCs). Part three features an

\(^2\) These include “bounded planes (e.g., the bike sped across the field/around the track”), cylindrical forms (“the bike sped through the tunnel”), a wide variety of different types of enclosures (“I crawled out the window”, “I ran in the house”), etc.” (Mani and Pustejovsky 2012:6)
ACCxG-driven classification of phrasal verbs conceived of as the result of the unity of lexis and syntax (PV-ASC patterns). Part four introduces an ACCxG-oriented pedagogy of PVs fleshed out by Phrasal-Verb Indexical Schemas. These templates are deemed to help learners gain access to constructional meaning in a more straightforward manner. Part five describes at great length the role of Task-based Language Teaching (TBLT) in the development of a constructionist type of pedagogy.

2 Defining constructions

Cognitive Construction Grammar (CCxG; Goldberg 2006, 1995, 2003; Goldberg and Suttle 2010) views language as an array of form-function pairings (termed constructions) which are “learned rather than innately given” (Boyd and Goldberg 2009:419) through usage and are “conventionalized in the speech community” (Gries and Ellis 2015:228). Language constructions come in a variety of forms that include words, morphemes, idioms, phrases, sentences, etc. As shown in Figure 1, several constructions interact to make an utterance meaningful. These include different word classes in noun phrases (determiners, adjective, nouns), affixes changing the grammatical category of adjectives (-ly), etc. Woven throughout is the idea that language is made up of “individual units and sequences of units [that] are subject to high levels of repetition” (Bybee 2013:50) and that are learnable through a combination of general cognitive mechanisms and the input.

In the context of ELT instruction, constructional learning thus faces the task of defining specific learning strategies that favor the reconstruction of the L2’s linguistic repertoire which is “in direct competition with [the] learners’ L1” (Ellis and Cadierno 2009:12). In this light, PV constructions require an approach that emulates the L1 process of conceptual representation as a basis for the construction of linguistic knowledge used to talk about experience. As Clark (2004:476) points out,

The information young children rely on in constructing their initial conceptual categories – shape, texture, motion and function – is also a source for their inferences about the probable meanings of words for those categories. They use existing conceptual information as they build up word meanings and link them to other words – for objects, parts, properties, relations and actions.

Ultimately, the cognitive (re)construction of conceptual categories, and of the language necessary to talk about experience, is what the Applied Cognitive Construction Grammar approach strives for.
2.1 Argument Structure Constructions

An important tenet of CCxG is the view that syntax and meaning are inextricably bound up with one another (Johnson and Goldberg 2013). Hence, in order to figure out novel verb senses in an utterance, learners must first understand how individual verbs combine with specific abstract syntactic constructions. These constructions are termed Argument Structure Constructions (ASCs; Goldberg 1995), and are defined as syntactic patterns that relate a verb’s meaning with the meaning of other elements in a clause (see Table 1 for a summary of ASCs). In other words, individual verb constructions (conveying their particular semantics) may or may not overlap the semantics of syntactic constructions. For instance, in the sentence “She took up her position last year” the meaning of the verb matches the meaning of the ASC it occurs in, namely the “transitive construction”. This ASC consists of several participants: a Causer (“She”), the Undergoer (“her position”), the intended movement (produced by taking up a position), and the adverbial “last year” (the time-location, termed “Oblique_{PATH}”). This relation can be rendered as a construction (a form-meaning pair):

\[
\begin{array}{cccc}
\text{Form} & \text{Meaning} & \text{Verb} & \text{Obj} \\
\text{Subj} & \text{(Causer)} & \text{acts on} & \text{(Undergoer)}
\end{array}
\]

It is clear from the above example that while the verb is a good predictor of clausal meaning in itself, it is the ASC which contributes the most relevant
semantics of the sentence. Moreover, the lexical-semantic content packed in the utterance links the clause to a meaning construed from bodily interactions with the world. Therefore, body schemas can be accessed via cognitive scenes involving an Actor that interacts with an Object physically to produce an effect. The visualization of cognitive scenes (Goldberg 1995) is a powerful source of constructional meaning accessible to us thanks to our experience with motion (e.g. verbs reflecting vertical or horizontal motion schemas), or containment. This is also consonant with a neurolinguistic standpoint which treats syntax and semantics as “interwoven, as syntactic circuits in the brain emerge from sequences whose segments belong together semantically” (Pulvermüller, Cappelle and Shtyrov 2013:416).

Table 1: A summary of English argument structure constructions (ASCs).

<table>
<thead>
<tr>
<th>ASC</th>
<th>Form</th>
<th>Meaning</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ditransitive</td>
<td>(Subj) V Obj1</td>
<td>X causes Y to receive Z</td>
<td>“So I hired a very good actor and he brought more life and humanity (Undergoer) to my part (Recipient) than I ever would, ‘cause I would have played it satirical (...)” (Kristen Stewart, Kristen Stewart Interview with Peter Travers 2016, <a href="https://www.youtube.com/watch?v=4_OTFV3YZeU">https://www.youtube.com/watch?v=4_OTFV3YZeU</a> [00:03:47–00:03:55]).</td>
</tr>
<tr>
<td>(preposition-al dative)</td>
<td>Obj2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caused-motion</td>
<td>(Subj) V Obj</td>
<td>X causes Y to move from/to Z</td>
<td>“The company known for investigative journalism and gossipy blogging (Causer) put itself (Undergoer) up for sale after a jury ordered it to pay $140 million to wrestler Terry ‘Hulk Hogan’ (...)” (TIME Magazine, The Brief, p. 15, July 25, 2016).</td>
</tr>
<tr>
<td></td>
<td>ObliquePATH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intransitive</td>
<td>(Subj) V Obj</td>
<td>X moves to Z</td>
<td>“(...) and in the first movie he (Actor) goes into his vulnerability (ObliquePATH) (…)” (Gwyneth Paltrow, Iron Man 3 Interview, 2013, <a href="https://www.youtube.com/watch?v=WWFuaTTzC_s">https://www.youtube.com/watch?v=WWFuaTTzC_s</a>)</td>
</tr>
<tr>
<td>motion</td>
<td>ObliquePATH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Removal</td>
<td>(Subj) V Obj</td>
<td>X causes Y to move from Z</td>
<td>“After we shut the cameras down, he (Causer) takes his mask off (Undergoer) (...)” (TIME Magazine, 7 Questions to Michael K. Williams, p. 68, July 25, 2016)</td>
</tr>
<tr>
<td></td>
<td>ObliqueSOURCE</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3 There has been a fair amount of controversy regarding the role of constructional knowledge as a predictor of sentence meaning during L2 learning. However, in terms of L2 proficiency, it has been shown that intermediate and advanced learners tend to rely on constructions rather than verbs to understand sentences. Conversely, beginner-level students are more prone to utilize verbal meanings as predictors of sentence semantics (cf. Kim and Rah 2016). This suggests the need for a type of instruction that helps learners gain access to constructions (instead of vocabulary) earlier than it is the case in traditional L2 teaching.
3 A Cognitive Construction Grammar typology of PVs

We are now in a better position to define PV semantics as the product of three related factors: 1) embodied meaning, 2) motivation\(^4\), and 3) PV-ASC attachment patterns, i.e. the association of the meaning of individual PVs and the syntactic constructions they appear in. It is worth pointing out that the following taxonomy is, unlike previous cognitive linguistic characterizations, not particle-based. One of the reasons for this is that a focus on particle meanings is insufficient to create the conditions for motivational transfer and, ultimately, for generalization (e.g. Condon 2008; Yasuda 2010). Pedagogically, it is suggested that transfer is best fostered when particle-verb associations taking place within a PV inheritance network of constructions (see Figure 2), are explicitly characterized as prototypes. In this sense, “inheritance” means that an abstract, underspecified PV construc-

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4 As Goldberg (2006: 217) points out, “motivation aims to explain why it is at least possible and at best natural that [a] particular form-meaning correspondence should exist in a given language”. In other words, constructional relations are emergent and start with an abstract, highly schematic prototype which motivates (becomes related both semantically and syntactically with) the form and function of other constructions.
Figure 2: Inheritance Network of PV constructions. Specific structures and PV-ASC patterns are motivated by an underspecified abstract PV construction.

Figure 2: Inheritance Network of PV constructions. Specific structures and PV-ASC patterns are motivated by an underspecified abstract PV construction.

...tion motivates more specific structural PV constructional patterns, such as verb + Object + particle in ditransitive PV-constructions (PVCs), or verb + preposition + object in prepositional dative (PD) in PV-constructions. As is illustrated in Figure...
2, the underspecified \([V \{A \text{ NP Prt}\}]_{vp}\) construction (the curly brackets indicate an underspecified syntax) motivates specific PV syntax, such as \([V \text{ Prt Obj}]_{vp}\), or \([V \text{ (Obj Prt)}]_{vp}\). This results in a verb-particle construction that attaches to four main ASCs, namely _ditransitive_ (VOO), _caused-motion_ (VOL), _intransitive-motion_ (VL), and _transitive_ (VO). It follows that a good way to promote PV-learning is through a definition of whole particle-verb associations as prototypes that motivate the further building of categories.

### 3.1 Ditransitive (VOO-PV)

_Ditransitive PVs_ combine the meaning of a PV with the meaning of the ditransitive ASC involving either a literal or metaphorical transfer of an _Undergoer_ (transferred object) from a _Causer_ to a _Recipient._

4) 

<table>
<thead>
<tr>
<th>Form</th>
<th>Meaning</th>
<th>Subject</th>
<th>Verb</th>
<th>Object 1</th>
<th>Object 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>(Causer)</td>
<td>passed</td>
<td>the gene causes (Y) to receive (Z)</td>
<td>to their descendants</td>
<td></td>
</tr>
</tbody>
</table>

3.2 Caused-motion (VOL-PV)

_Caused-motion PVs_ (VOL-PVs) involve the literal or metaphorical action of a _Causer_ who causes an _Undergoer_ to move.

5) 

<table>
<thead>
<tr>
<th>Form</th>
<th>Meaning</th>
<th>Subject</th>
<th>Verb</th>
<th>Object</th>
<th>Oblique PATH</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>(Causer)</td>
<td>threw</td>
<td>the book causes (Y) to move (from/to) (Z)</td>
<td>across the room</td>
<td></td>
</tr>
</tbody>
</table>

3.3 Intransitive motion (VL-PV)

_Intransitive-motion PVs_ express the action of an _Agent_ (subject) who moves intentionally along a path.
6) 

\[
\text{Form} \quad \text{Subj} \quad \text{Verb} \quad \text{Oblique}_{\text{PATH}} \\
\text{Meaning} \quad X \quad \text{moves to} \quad Z \\
\text{(Causer)} \\
\text{(TIME Magazine, 2015)}
\]

3.4 Transitive (VO-PV)

Transitive PVs involve an Agent acting on an Undergoer (direct object).

7) 

\[
\text{Form} \quad \text{Subj} \quad \text{Verb} \quad \text{Obj} \\
\text{Meaning} \quad X \quad \text{acts on} \quad Y \\
\text{(Causer)} \quad \text{(Undergoer)} \\
\text{(TIME Magazine, 2016)}
\]

4 Introducing PVs in the ELT classroom

The view presented above, which characterizes PV-ASC patterns as four working constructional categories, has far-reaching pedagogical implications: unavoidably, a link between language and action must be established. In light of this, it is suggested that the Indexical Hypothesis (Glenberg and Robertson 1999) provides anchor points for this integration. The hypothesis involves three processes, namely indexing whereby words and phrases refer to objects (Glenberg and Robertson 1999:1), affordance derivation, i.e. the definition of the properties of indexed objects which are relevant for understanding an utterance, and finally meshing, which consists in the combination of “affordances into a coherent (i.e. envisionable and doable) set of actions” (Glenberg and Robertson 1999:18). Of central interest here is the fact that ASCs are sensitive to indexation. Thus, the caused-motion (VOL) ASC profiles two arguments (specifies obligatory direct arguments), namely a transferred object (Undergoer) and a Recipient (goal) whose affordances, including “temporary characteristics of objects, such as spatial location, that determine how to interact with those objects” (“episodic affordances”, Glenberg et al. 2009:114), convey the
meaning of *transfer*. In other words, for a successful comprehension of the sentences in 8 a-c, the three above-mentioned processes must align.

8)


As can be seen, examples 8 a-b associate animate *Causers* and animate *Recipients* (being “animate” is an affordance for subjects and recipients in transfer sentences) with inanimate *Transferred Objects* (conversely, being “inanimate” is an important affordance for Undergoers). The combination of these affordances provides a coherent *transfer clause* in which the verb’s meaning profiles specific participants. Interestingly, in example 8c, the combination of an inanimate *Causer*, an animate *Recipient*, and an inanimate *Undergoer*, is coherent thanks to the fictional character of the text in which these participants appear.

Going back to L2 reconstruction, the three processes of the *Indexical Hypothesis* can be integrated pedagogically through the medium of *Phrasal-Verb Indexical Schemas* (PVISs). These templates are designed to unify language and action through an emphasis on *embodied cognition* in a fashion akin to utterance-based L1 acquisition (cf. Ibbotson and Tomasello 2009). This includes: 1) a *surface form*, 2) a *cognitive scene* (Goldberg 1995), and 3) an *encoded manner*. Moreover, PVISs are metaphor-decoding devices that bring to the surface the primeval physical-spatial experience encoded by *conceptual metaphors* (Lakoff 1987; Lakoff and Johnson 1980). The structure of PVISs shall be outlined below.

### 4.1 Surface form

The *surface form* displays the PV construction in the clause in which it occurs. It includes specific slots for other clausal elements like objects, prepositional objects and adverbials. At this stage learners are asked to check the sentence for the participants profiled in it. As shown in example 9, the *Physical causative-into* PV construction “DRAG INTO”, features two profiled participants: **slot 1** (UNDERGOER) and **slot 2** (PATH LOCATION):
4.2 Cognitive scenes

A cognitive scene (Goldberg 1995) features several participants that may or may not be specified (Causer, Undergoer, Path) in an utterance. Cognitive scenes are sources of constructional meaning that connect L2 learners with the abstract conceptual dimension of language (Tyler and Evans 2003). Therefore, in appealing to their embodied experience with motion (e.g. verbs reflecting vertical or horizontal motion schemas), containment, or removal, the use of cognitive scenes can help learners increase awareness of the relations of language with a deeper embodied conceptual system (Tyler 2012:136–137). This conceptual system is variegated and consists of spatial components, or spatial primitives, i.e., “one or more pieces of spatial information, especially movements in space” (Mandler 2010:25). These include PATH, MOTION, START PATH, or CONTACT, and can have a +/- character depending on whether “there is an element of absence of a primitive that combines with PATH, MOTION, or CONTACT” (Mandler 2010:27). As shown in example 10, spatial primitives are expressed by means of cognitive scenes aimed to capture complex form-meaning relations in a straightforward manner. In this sense, the transitive PV “BURN AWAY” is described as an action performed by a Causer (the sun) on an Undergoer (the fog). The verb “burn away” is thus an extension verb that inherits its meaning from a central-sense verb (REMOVE). In other words, “burn away” provides a metaphorical extension whereby something (the fog) is removed by someone/something (the sun) from a location.
4.3 Encoded manner

Making metaphorical extensions explicit to learners is, nonetheless, insufficient to grasp the meaning of all PVs. This requires us to adopt a further layer of analysis, namely how the verb-particle combination expresses manner, i.e. a particular way of doing something which is encoded either in the lexical verb or in the particle. As is illustrated in example 11, the intransitive–motion PV “POP UP”, contains a particle (expressing Telic Aktionsart) that complements an achievement verb marking “the boundary between the state existing prior to a change and the state existing after that change, without referring to the change itself” (Demonte and McNally 2012:3). Strikingly, the particle UP denotes a “negative vertical axis”, that is, the upward movement is construed to be an undesired outcome of an action determined by an agent at the bottom (the reference object) (see Landau 2013:24). In other words, POP UP describes a movement from a lower place to a higher position performed in a very quick manner.

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5 The type of act referred to also involves a sequence of caused events, their results and consequences: “An act is a causing of an event by one or more agents. (Agents perform an act jointly if they cause an event jointly.) The result of an act is that very event, and its consequences are effects of its result”. (Hyman 2015:61–62)

6 Transitive verbs such as think up do not express events of change: “As for the leading ladies she has yet to think up, she doesn’t care whether they emerge from a womb or an animator’s hand” (TIME Magazine, 16 June, 2016, p. 60). However, other transitive PVs like run out of contain semantic sub-parts (see Gisborne 2010:2) of telic intransitive motion. For example, run out of can mean that something was 1) completely used up, or 2) ceased to exist: 1) “Peter Jackson has finally run out of movies to split into three more movies!” (ENTERTAINMENT WEEKLY, 19 December, 2014, p. 26); 2) “Typically they falter because they can’t find a market, can’t compete or run out of funding” (TIME Magazine, 16 June, 2016, p. 28). Yet, in both these sentences it is the “object” which ceases to be available to the agent as a result of metaphorical caused motion, interpreted as the passing from an original state to an end state. The point to be made is that while certain PVs can be overtly associated with compositional physical motion others are semantically frozen, which means that the meaning of verb-particle association must be analyzed as a metaphorical domain. For example in the sentences “The March of Dimes calculates that babies born before 32 weeks’ gestation run up an average hospital bill of $280,811”, and “(...) they will run up costs and casualties until the American public steps in and says, “Enough!” (TIME Magazine 2015), the meaning of both PVs is not easily predictable from the sentences’ components. However, it is not a stretch to imagine that a metaphorical caused-motion is invoked when someone (in this case the babies and they respectively) makes the “bills” and the “costs” run up (increase)...
Intransitive-motion PV

### SURFACE FORM

**example**

(S) pop up somewhere

{Protesters popped up outside}

### SCENE

**to appear** in a place

- suddenly

### ENCODED MANNER

As we can see, PVISs are simple tools to retrieve schematic patterns with central embodied tendencies by “mak[ing] language more memorable [and] by showing how a meaning has been derived from physical experience” (Holme 2012:9). Since satellite-framed languages (Talmy 2012) provide rich manner information not present in verb-framed languages like Spanish or Italian, speakers of these languages who “often end up omitting manner information altogether” (Cardini 2012:168) should be exposed to explicit references to PV encoded manner.

5 **Task-Based Language Teaching and L2 reconstruction**

The PV-ASC attachment patterns described in the previous section point to the learners’ need to grasp the way an underspecified PV construction (Gilquin 2015; Goldberg 2016b; Torres-Martínez 2015, 2016) motivates PV constructional patterns. It is not all that difficult to see that PVISs (providing a focus on the most abstract construction) mitigates both L1-L2 typological differences,” as well as L1

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7 PVISs are obviously indexical upon the relations of form and function of the input to the mapping they facilitate, especially when the perceptual salience of at least TWO relevant features of the construction is compromised. For example, semantic features like aspect and manner contributed by the particle in verbs such as drink up, eat up, etc., can be obscured by the most
transfer (cf. Ji and Hohenstein 2014). Most fundamentally, this brings into question the conclusion that a “higher level [constructional abstraction] may be too general and too abstract, and may cover too much variation to be of any real use to learners, who cannot generalize from the diversity of structures and forms that phrasal verbs can take on” (Gilquin 2015:82–83). As the constructionist PV-typology presented in this paper has shown, systematicity leading to categorization is by all means possible especially among L2 learners who, as noted above, tend to be more sensitive to constructions than native speakers (Cao and Zhou 2014; Gries and Wulff 2005).

In this sense, the L2 reconstruction model presented in this paper places the focus on the consolidation of constructional learning through both noticing and categorization tasks. This line of reasoning implies that L2 reconstruction can be facilitated via enriched input in Task-based Language Teaching environments (TBLT; Long 1991; Rod Ellis 2003; Robinson 2001; Robinson and Gilabert 2007; Skehan 1996) where “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 1996:38). Though TBLT is associated with the communicative approach, whose popularity has discouraged research into the role of cognitive linguistics in pedagogical grammar (Verspoor 2008:89), TBLT methodological principles (MPs) can be easily adapted to suit the requirements of ACCxG-informed grammar instruction (see Long 2016:7):

- MP1: Use task, not text, as the unit of analysis
- MP2: Promote learning by doing
- MP3: Elaborate input
- MP4: Provide rich input
- MP5: Encourage inductive “chunk” learning
- MP6: Focus on form
- MP7: Provide [positive] feedback
- MP8: Respect learner syllabi and developmental processes
- MP9: Promote cooperative collaborative learning
- MP10: Individualize instruction

It follows that the notion of tasks referring to “the real-world communicative uses to which learners will put the L2 beyond the classroom—the things they will do in and through the L2 (...)” (Long 2016:6), can be reframed cognitively. As a result, accessible meaning of the lexical verb. Hence, a correct mapping of the PV construction (leading to the emergence of abstract perceptions) demands that these form-function relations be explicitly pointed at to learners.
the acceptation of TASK used in this paper is not restricted to “authentic” language use. Rather, it subscribes to the notion of cross-contextual dimension of language. As we will see, this type of tasks presupposes an adapted construct-centered approach (Messick 1994) which seeks to develop learners’ language proficiency having a theory of language learning as a point of departure. The point to emerge from this brief discussion is that tasks should not be simply made to rest on predefined context-driven features by which to measure native-like performance, but on the whole host of interactive functions associated with L2 reconstruction. This is in line with Skehan who views Long’s approach to tasks as “essentially local in character” (Skehan 1996:128), since it provides no clear answers as to how a focus on communication strategies and lexically-based language can promote systematic language development.

In order to integrate a cognitively-inspired TBLT approach to PVs into the regular coursework of the classroom, it is first necessary to define the specific levels of constructional abstraction to which learners should be exposed. As shown in Figure 3, the underspecified PV construction motivates four PV-ASC attachment patterns that can be reconstructed in the classroom.

The whole process is viewed as a continuum in which noticing and categorization are placed at each end. Different input complexity emphases can be envisioned in order to develop embodied cognition. This type of constructional tasks elaborate on Robinson’s Cognition Hypothesis (Robinson 2001, 2003; Robinson and Gilabert 2007), whereby task complexity, i.e. “the result of the attentional, memory, reasoning, and other information processing demands imposed by the structure of the task on the language learner” (Robinson 2001:29), promotes more complex and accurate language use. As Robinson and Gilabert (2007:162) observe, the increments in task complexity (a) push learners to greater accuracy and complexity of L2 production in order to meet the greater functional and conceptual communicative demands they place on the learner; (b) promote interaction, and heightened attention to and memory for input, so increasing learning from the input, and incorporation of forms made salient in the input; as well as (c) longer term retention of input; and that (d) performing simple to complex sequences will also lead to automaticity and efficient scheduling of the components of complex L2 task performance.

Constructional tasks can thus be defined as those in which a focus on form-function relations (associated with a cognitive conceptual framework) are connected with specific usages through an emphasis on embodied cognition; as a result, task progression is assessed against the backdrop of distinct forms of categorization and generalization. This is also in keeping with one major claim of the Cognition Hypothesis, namely that “pedagogic tasks should be designed, and
then sequenced for learners on the basis of increases in their cognitive complexity” (Robinson and Gilabert 2007:162). Crucially, this presupposes increments in cognitive task complexity by way of a design that keeps the difference in design
features “as large as possible to make the actual cognitive demands posed by these tasks meaningfully distinct” (Sasayama 2016:248–249). In addition, this framework offers a window into the process of L2 reconstruction of embodied cognition through adapted resource-directing tasks aimed to draw learners’ attention to form and function. The focus on resource-directing dimensions, via reasoning skills, is in line with a need in constructional learning to foster those specific learning determinants that facilitate the acquisition of a given PV construction (Torres-Martínez 2016). Importantly, this reflects facts about a possible sequential ordering of tasks in which the boundaries of constructional learning are soft. The reason is that the purpose of these tasks is to emulate the iterative process of L1 learning, which downplays their particular attachment to specific linguistic levels. It follows that the introduction of highly-variable constructions like PVs in the ELT classroom requires a sequencing that reflects L1 learning stages. In the first place, learners should become familiar with the features of the underspecified PV construction, which entails tasks in which the perceptual salience of the elements of the schematic PV construction are enhanced. As is shown in Appendix A, the association of the form and the function of the general-purpose verbs GO and COME with several particles is highlighted. This aims to create a “feel” of the phrasal verb which can be further reinforced by means of categorization tasks. In this sense, once the basic elements of the PV construction are made explicit to learners, the type and frequency of PVs emerge as categories. This requires the design of input frequency tasks leading to the emergence of abstract representations of novel constructions. This type of tasks draws on patterns of distribution of highly-frequent PVs, also known as Zipfian distribution (Zipf 1935), “whereby the highest frequency words account for the most linguistic tokens” (Ellis and Ferreira-Junior 2009:371). In other words, the most frequent PVs in a corpus are the most prototypical and hence the easiest verbs to learn because learners are more frequently exposed to them in the input. One of the reasons for this is that prototypical PVs contain general-purpose verbs (e.g. go, make, take, put, come) usually associated with particles to express intransitive motion. Since these verbs are by far the most frequently used in PV constructions in English (see Liu 2011, for a list of frequently used PVs), they constitute the most prototypical exemplars of the PV category. Clearly, Zipfian distribution tasks “support learners in acquiring and producing those linguistic items that are more frequent in the input such that Zipfian distributions in the input are replicated in learner output” (Crossley, Kyle and Salsbury 2016:704). For example, the task in Appendix B is informed by the results of a corpus study into PV usage in the

8 The strength of a stimulus as perceived by an experiencer.
Vienna-Oxford International Corpus of English (VOICE). As is plotted in Figure 4, both the intransitive-motion and transitive ASCs are populated by PVs whose meaning clearly overlap the meaning of the ASC they occur in. Furthermore, the frequency of these verbs displays Zipfian distribution patterns. As shown by previous research into the facilitative effects of Zipfian frequencies (e.g. Zhang and Dong 2016), the exposure of learners to prototypical construction (such as PV-ASC attachment patterns) is advantageous. What underlies this task is presumably the most fundamental of all assumptions in ACCxG, namely that, at early stages of language acquisition, the inclusion of specific PVs should be guided by natural occurring categories (Rosch et al. 1976), rather than abstract, arbitrarily assigned levels of linguistic difficulty. This should reflect actual L1 learning, since “early uses of general purpose verbs [seem] to provide the foundation for both initial syntactic and semantic generalizations, and thus provide a route to the acquisition of form and meaning correspondences: i.e. constructions” (Goldberg 2006:79).

Figure 4: Zipfian distribution of phrasal verbs in the VOICE.

The next logical emphasis of constructional tasks should be on generalization, that is, the extrapolation of already learned constructional patterns into novel contexts of use. Importantly, learners’ tendency to overgeneralize a familiar pattern can be tackled through statistical pre-emption tasks. This type of tasks (see Appendices C and D) should be used along with low-frequency PV constructions, including transfer and monotransitive PVs. Statistical pre-emption (or “blocking”) states that “more specific knowledge always pre-empt general knowledge, as long as either would satisfy the functional demands of the context equally well” (Goldberg 2006:94; emphasis in original). A case in point is the verb “eat up” which displays
two types of pre-emption: 1) morphological and 2) morpho-syntactic. In the first case, the irregular simple past tense of the lexical verb “eat” (“ate”) pre-empts (overrides) the regular suffixed form “eated”. Secondly, the particle UP (contributing aspectual meaning) blocks the use of the one-word verb EAT which, unlike its phrasal counterpart, can be used to describe continuative actions (atelic). As Wild (2011:56) observes, “[i]f you eat a banana you consume at least part of it” (…); if you eat up a banana, you finish it”. Another case of pre-emption worth mentioning regards register constraints: “eat up” blocks Latinate synonyms like the figurative consume (a person), and devour (all of some food). These and other phrasal verbs carrying aspectual particles, such as “drink up”, or “finish up”, etc., can be drawn onto a pictorial PVIS to make up a visual representation in which the meaning of the Verb+Object+UP construction is explicitly linked to telic Aktionsart (see Appendix C). In this case, learners should be presented with the various senses of the verb (however, see Herbst 2016:42), which facilitates the integration of lexis and syntax.

As for both function (prototypicality of meaning, i.e. that some lexical verbs such as GET or TAKE are more often combined with particles and hence are more representative of specific categories), and salience of perception (which means that some characteristics of a construction are more evident than others, e.g. adjacent PV particle placement is more easily acquired by L2 learners), these are determinants that cannot be worked in isolation in constructional tasks.

The whole process of L2 reconstruction can be summarized by means of an analysis of the Causative-INTO PV construction, a low-frequency construction that inherits its syntax semantics from the prototypical Caused-Motion ASC. Four cases can be mentioned:

13)

a. **Transformative metaphorical motion C-INTO PV construction** (X causes Y to become Z).

“It’s been 16 years since the film about Brockovich, played by Julia Roberts, turned the scrappy, no-nonsense legal assistant into a celebrated environmental activist and folk hero. (PEOPLE Magazine, Erin Brockovich’s Latest Crusade, 4 July, 2016, p. 89).

b. **Persuasive change-of-mind C-INTO PV construction** (X causes Y to do Z).

“I’m giving my dad a new bed for his birthday. I’m going to lure him into the room and then tackle him on it!” (PEOPLE Magazine, Zack Effron, 4 July, 2016).

c. **Forced-motion C-INTO PV construction** (X forces Y to move from source path to target path).

“So, at 10:40 a.m., Murray pushed 25 mg of Propofol slowly into the singer”. (PEOPLE Magazine, Michael Jackson: Inside his final hours, 4 July, 2016).
d. Metaphorical-placement C-INTO PV construction \((X \text{ causes } Y \text{ to move } Z)\).

“Well, um, I think, you know, I’ve got a seven and a nine year old, a seven and a nine year old sons, I’ve got an older daughter, and at the time it certainly felt like there’s no way that I could fit that into my life as a parent (...)” (Gillian Anderson, Gillian Anderson is back as Agent Scully in ‘The X-Files’ return, 2016, https://www.youtube.com/watch?v=ASsidsPV3z4 [00:02:37–00:02:52])

The conceptual reconstruction of the C-INTO PV should thus begin at the level of the abstract PV construction to facilitate the spatial representation associated with body schemas:

1) An underspecified PV-construction \([V \{\text{Obj Np Prt}\}]_{VP}\) motivates a specific PV-ASC attachment pattern \([V (\text{Obj Prt Np})]_{VP}\).

2) This abstract syntactic construction, usually matched by the factual PV “drag into”, profiles two participants, namely, a direct object (Undergoer) and a noun phrase (path) acting as the object of the preposition INTO.

3) The literal meaning of the prototypical \([S, V, \text{OBJ}, \text{INTO NP}]\) construction is metaphorically extended in the form of both a Change-of-state and a Change-of-behavior C-INTO PV construction.

Translated into instructional terms, the corresponding PV-Indexical Schema for the C-INTO PV construction provides the first port of call in defining prototype effects, i.e. “the finding that members of a category can be rated in terms of how good they are” (Taylor 2008:41). As shown in Appendices A and B, a constructional task is divided into three main phases which seek to augment the cognitive complexity of the task by means of an increment in design features: 1) pre-task, 2) during task, and 3) post-task.

1) The pre-task phase is designed to provide learners with a space to carve out form-meaning-use associations through the use of PVISs. During this phase, learners are asked to engage in a bodily reconstruction of form-meaning relations of the target construction by way of short cognitive scenes. The main function of cognitive scenes is to enable learners to create mental images in a mental inner space. As Johansson, Halsanova and Holmqvist (2013:9) point out, “[we] ‘see’ images when we mentally recreate experiences, when we plan future events, when we solve problems, when we retrieve information about physical properties or relationships, when we read an absorbing novel, or when we use metaphorical language”. Clearly, this sensitizes learners with the underlying semantics of linguistic constructions as a result of embodied knowledge. It goes without saying that the use of these templates aims to foster explicit knowledge through “explicit grammar explanations directing learners’ attention to the features of the motion expressions” (Wu 2016:460). This
makes the particular features of a construction become *salient* (Rod Ellis 2003:149). The main advantage of the ACCxG approach is that the metalanguage required to help learners come to grips with specific cognitive notions is applicable to range of constructions other than PVs. Thus, concepts like *construction, embodiment, motivation, inheritance, argument structure constructions*, etc. are not abstract constructs tied up to a restricted set of structures, but overarching instances prompting the learning experience as a whole. Notwithstanding, a simple “knowledge about language and about the uses to which language can be put” (Rod Ellis 2004:229; emphasis in original) is insufficient in the context of ACCxG, since explicit knowledge also entails awareness of how category-building skills and the input are summoned to construe human experience with language. This is why learners are asked to use the visual cues provided by the template to enact a situation entailing factual motion, which, as noted, has only a marginal connection with the explicit teaching of rules or the instruction to look for them in the input (Godfroid 2016:180). On the other hand, the notion of noticing-the-gap (associated with the role of explicit knowledge in implicit learning) is rejected in the context of ACCxG, since learners’ norms are not viewed as a stage of defective use in interlanguage development that needs to be repaired (hence the metaphor of a gap in language development). Instead, L2 reconstruction hinges on the notion of what I have called “noticing-the-schema”. This means that learners are capable of recognizing “interconnections [that] single out the constitutive entities and establish them as a group” (Langacker 2008a:105). In other words, ACCxG-inspired tasks are not constrained linguistically by an artificial authenticity-driven paradigm whereby “authentic L2 learning situations” automatically foster meaning negotiation, and ultimately, L2 learning.9

2) The *during-task phase* taps into the different contexts in which the C-INTO PV construction can be utilized by placing the focus on the verb-particle relation and its interaction with other clausal elements. The *construction of verb schemas* stems from the interplay of both vertical reading of sample lines (iterations) taken from a corpus, and particle highlighting via *Keyword in Context* display mode (the particle is placed at the center).10

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9 While I accept that an interplay between developmental trajectories and individual learner variation does exist in L2 reconstruction, I reject the existence of an independent human language processor (e.g. Lenzing 2015). The reason is that this metaphor does not allow further the breakdown into non-linguistic aspects of human cognition which, of course, are not reducible to predictable computations resulting in increments in target-like output.

10 At the most basic level, verb schemas result from “the capacity for apprehending relationships and for tracking relationships through time” (Langacker 2008a:108).
framework behind this design is Data-Driven Language Learning (DDL; Boulton 2010; Johns 1994; Leńko-Szymańska and Boulton 2015; Torres-Martínez 2014, 2015, 2016). DDL draws on the learners’ hands-on consultation of corpora through the use of a concordancer, which demands an active engagement of learners in the process of pattern detection. Alternatively, Paper-based DDL tasks (PbDDL; Torres-Martínez, 2014, 2015, 2016) hinge on printed concordance lines in KWIC display mode which seek to induce noticing among learners. These tasks, unlike DDL tasks, are teacher-fronted. (At this point, a note of caution concerning the success of PbDDL tasks must be raised: Tasks are not the best option in mixed-proficiency classes, crowded classrooms, or in groups in which passive-learning styles are dominant).

3) Finally, the post-task phase is where generalization takes place. The main purpose of this section is to test the task-cycle outcome by nudging L2 learners gently into an output that shows the extent to which they have internalized specific knowledge about the cognitive underpinnings of the target constructions. This entails attention to form and function constraints, allied with the expectation that this knowledge can be generalized over the set of constructions available in the caused-motion category.

It becomes evident from the above discussion that while input can be modeled to suit specific learning needs (or linguistic levels) during L2 reconstruction, learners’ category-building abilities (Tomasello 2003) can only be guided through tasks aimed to create certain output-biasing effects. Since even in classroom settings the input is often random and unconstrained (which obscures the perceptual salience of many constructional features), the question to be asked is what type of linguistic samples can be used to model salient stretches of language, thereby facilitating the emergence and further entrenchment of constructions. In principle, it is assumed that constructional learning in the classroom is expedited by the exposure of learners to a range of constructional patterns. Such variations can be informed by corpus-identified language samples which, in the particular case of PVs, have been identified as good predictors of PV knowledge (Garnier and Schmitt 2016).

6 Concluding remarks

In this paper I have introduced a cognitive approach to the teaching of phrasal verbs within an Applied Cognitive Construction Grammar framework. The phrasal-verb typology described in the article is intended to provide teachers with simple conceptual tools to improve PV instruction (without pushing instructors to be-
come cognitivists of sorts), as well as the opportunity to become sensitized to
prior misconceptions regarding traditional pedagogical grammar. Though most
applied constructionists now recognize the potential CxG has to inform language
pedagogy, some approaches may also be falling in the trap of seeing language
acquisition as a race to ferret out native-speaker performance. It is thus an irony
that the wish for “increased native-soundingness” (Gilquin 2015:84) has also
crept into pedagogical cognitive approaches moving up the priority ladder to
favor “native constructions” over learner usages. Such stance clearly points in the
opposite direction of CxG’s claims by tacitly endorsing nativist ideas of a Universal
Grammar knowledge which should be activated by an alleged language acquisition
device. One of the possible reasons to the pervasive monolingual bias (based on
concepts like “negative transfer” and the L1 as source of infelicity) is the assumption
that non-native constructions (while proven to exist) are defective and there-
by block the development of a full-fledged “native” cognitive system among L2
learners. A yet deeper conclusion to be contemplated is that while it has been
demonstrated empirically that cognitive-driven instruction can lead to distinct
increments in the learning of constructions in L2 instruction, such results are not
necessarily translatable into the real world teaching due to their experimental
purposes. As might be imagined, the implementation of an ACCxG-informed
pedagogy is not a short-to-medium-term development given, among other things,
the lack of teacher training programs in which the psychological underpinnings
of language are consistently and coherently integrated as part of a model of
learning that views language as a cognitive ability. The use of constructional tasks
thus aims to introduce a more attuned and sensitive way to approach day-to-day
teaching challenges. Indeed, this type of tasks take into account a number of
nonnegotiables related to the multicomponental nature of L2 ability (including
individual learner variables) that come to rub up against language curricula,
learning styles, language-related identities, learners’ face-saving strategies, or
culturally-motivated relations to learning. By taking a longer view, the task of
future ACCxG-inspired research can be construed as a multidisciplinary endeavor
aiming to tease out which aspects of constructionist instruction can be linked up
more explicitly with both the expanding self-identity of applied linguistics, tea-
cher training, and language pedagogy.

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APPENDIX A

A perceptual-salience task.

Phrasal Verbs

Intransitive Phrasal verbs

PRE-TASK

Combine the verbs COME and GO with the particles to tell a short story.

GO back COME into out away

DURING-TASK

Identify the sentences that express a target direction (TD) or source direction (SD). Compare your answers with a partner.

1. I came back for Christmas.  
2. Some of her boys grow up and go away to the war.  
3. She went into space.  
4. Nirvana came out of Seattle.  
5. I went to Macy’s at the Beverly Center.  
6. We went back to that club.

POST-TASK

Choose one of the particles in the box below to complete the verb’s meaning. Discuss your answers with a partner.

AWAY, TO, BACK

<table>
<thead>
<tr>
<th>Sentences</th>
<th>TD</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I hope that their confidence comes _______.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. He basically goes _____ Vegas to get away from his ex.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. She went ______ to sea.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. “Story comes ______ me very automatically while I’m writing”. (Haruki Murakami, Entertainment Weekly, 8 August, 2014, p. 48)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX B

A Zipfian-distribution task.

Phrasal Verbs

Stress

PRE-TASK

Analyze the schema. Write five sentences using the PVs come from, look at, write down, come back. Read your sentences to a partner. What differences in stress do you hear?

Phrasal-Verb Indexical Schema

<table>
<thead>
<tr>
<th>Surface Form</th>
<th>(S)</th>
<th>V</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>---</td>
<td>stressed</td>
</tr>
</tbody>
</table>

Example

Scene Someone moves from a source location to a target location.

Read the sentences below with a partner. Say whether the stress falls on the verb or on the particle.

1. I come from Germany
2. Look at the books!
3. I wrote down what I heard
4. Let’s come back in two weeks time
5. They go out at eight or nine.
6. They went through the whole stadium.

Ask a partner to read the missing part of the PV to you to complete the sentences.

1. People always come ______ to it.
2. She ______ from a very poor family in Newark.
3. We went ______ drinking one night.
4. We all ______ through it.
5. He set ______ a meeting with the boss.
6. I just write ______ what I hear.
7. I ______ up with the concept.
8. It actually ______ from Europe.
9. It never ______ out of style.
10. He wrote ______ the telephone number.
APPENDIX C

A sample of a pre-emption task.

Use the Phrasal Verb Indexical Schema as a guide to play a scene in which you and a partner (X) eat something (Y) up (completely).

Say whether the forms of the verb “EAT” express either a complete (TELIC) or incomplete (ATELIC) action. Discuss the differences in meaning with a partner.

1. A state of chronic powerlessness eats away at a person
2. That still eats me up
3. Max eats fast, Albert slowly
4. She watched as he ate everything on his tray
5. The hungry fire ate across the hallway ceiling
6. They were eating and watching a rerun of Family Guy

Write a cognitive scene describing the meaning of the verbs below.

<table>
<thead>
<tr>
<th>Samples</th>
<th>Cognitive Scene</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. “A new cloud appeared and gradually swallowed up the moons.”</td>
<td>(Haruki Murakami, <em>IQ84</em>, 2009)</td>
</tr>
<tr>
<td>4. “He gulped down the last of his sandwich.”</td>
<td>(Robyn Carr, <em>Temptation Ridge</em>, 2013)</td>
</tr>
</tbody>
</table>
APPENDIX D

Pre-emption task focusing on caused-motion phrasal verbs (Causative-INTO).

Phrasal Verbs

CAUSED-MOTION (V+INTO)

Play a scene in which someone is forced to move (either physically or metaphorically) from one place to another. Use the Phrasal-Verb Indexical Schema as a guide.

Discuss with a partner whether the sentences correspond to either metaphorical or literal caused motion. Identify the Causer and the Undergoer in each sentence.

- The repetitive cycle lulls the nerves into a state of quiet
- He neatly ties up his sweaty clothes into a plastic bag.
- They pretzled a woman’s foot into a hysterically arched 10-inch hoof.
- It can push brain tissue into the spine.
- They have woven family lives into their nomadic rock-star existence.
- Industry veteran are kicking her career into high gear.
- He pushes the diamonds into piles with a practiced flick of his wrist.
- A harmless virus that carries healthy genes into the retina and improves vision over time.
- You’ll learn how to channel nervous energy into effective performance.
- He turned a class of nerdy private-school kids into a headbanging rockband.
- “I thought, ‘Oh my God, I have to push myself’” into overdrive."
- She brings me into her family like I was her 13-year-old son.
- The latest from Pixar takes you into the mind of a tween girl.
- You take a photo or video of it, then you upload it into the cloud, and it lives there forever as bits.
- The next morning I dragged myself into the office.

Read the text below. Identify the Caused-motion PVs (there are two of them). Then place the PVs and their PROFILED participant roles (Causer, Undergoer) in the provided matrices.

“She wriggled a hand into a pocket of her tight, dark jeans and pulled out several hundred-dollar bills. Fortunately, the good Lord has provided; she said.”

(John Green, Paper Towns, 2009)

<table>
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<tr>
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<th>verb</th>
<th>Object</th>
<th>Oblique</th>
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