

## **Reviews**

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**Tiago Timponi Torrent, Ely Edison da Silva Matos and Natália Sathler Sigiliano (eds.)**, *Construction Grammar across borders* (Benjamins Current Topics 122). Amsterdam and Philadelphia: John Benjamins, 2022. Pp. v+174. ISBN 9789027211484.

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Ever since its detachment from Generative Grammar in the 1980s, Construction Grammar has been pushing the boundaries of our understanding of language and questioning traditional 'borders' - such as the ones between semantics and pragmatics, lexicon and syntax, and usage and competence. From its early work on idioms, Construction Grammar has wandered ever further afield offering new insights into various areas of linguistic study. Even now, half a century or so since its inception, Construction Grammar is still exploring new territory and the present volume, Construction Grammar across Borders, is a testament to this continued progress. The volume is based on plenary talks given at the 9th International Construction Grammar Conference in 2016. Aside from signifying the crossing of literal borders (ICCG9 was the first to be held in the Global South), the conference was specifically interested in shifting the view from 'domestic' concerns to more 'global matters', i.e. Construction Grammar's relationship with related approaches as well as its application in specific subfields such as language change, language teaching and natural language understanding. The five contributions to the volume do just that and thus mark an interesting point in the evolution of Construction Grammar.

The first two chapters in the volume look at the theoretical compatibility of Construction Grammar with related approaches. Ronald Langacker's chapter, 'Trees, assemblies, chains, and windows' (pp. 7–54), shows not only how constructions but also other metaphors (e.g. trees, hierarchies, networks, chains etc.) used for grammatical description are compatible with the Cognitive Grammar notion of 'assembly'. He argues that while these metaphors make valid generalisations, they come with drawbacks and blind spots that need addressing. As a solution, he puts forward the notion of assembly in his own framework, Cognitive Grammar. Throughout the chapter, he demonstrates not only how assemblies explain the phenomena that these metaphors are targeting in a unified account, but also how this can be done in an account that is sensitive to cognitivist and constructivist commitments.

By assembly Langacker means any connection of two linguistic entities. Constructions as form—meaning pairings are seen as very elementary, low-level kind of assemblies. Constructions can be combined to higher-level assemblies, i.e. 'composite structures'.

This requires semantic integration (the two constructions need to fit with regard to their participant roles) and phonological integration (i.e. the elements form a temporal sequence). Composite structures exhibit hierarchical organisation similar to constituency, as the combination of constructions results in the emergence of a new higher-level entity. Notably, though, constituency in phrase structure grammars is structural rules, whereas in Cognitive Grammar structural rules arise due to semantic compatibility. Assemblies are also compatible with dependency relations and chains when looking at connections on the lower levels of assemblies, specifically at semantic correspondences. Langacker is especially concerned with demonstrating the virtues of assemblies for grammatical description over constituency, which is at the heart of generativist theories. He argues that assemblies can account for all of the grammatical phenomena that constituency grammars can. He further proposes that assemblies avoid problems that arise for constituency accounts such as discontinuous constituents, head ambiguities and coreference. For assemblies these problems do not arise, because they can be dealt with semantically and constituency is not fundamental to assemblies.

In this chapter, Langacker adopts a diplomatic approach towards other approaches to grammatical description. Instead of denying the validity of metaphors such as trees, chains and networks, he shows how they all offer valid explanations of grammatical phenomena. At the same time, he demonstrates the virtues and benefits of constructionist approaches (both Construction Grammar and Cognitive Grammar), by showing how all these ways of describing language structure can be integrated into a single account. This is, of course, a massive undertaking, which requires recourse to different levels of linguistic organisation to account for grammatical phenomena that other approaches would offer mere 'syntactic' explanations for. The chapter thus necessarily involves a crash-course in Cognitive Grammar while, at the same time, it involves tackling big issues in grammatical description from the points of view of different metaphors. This means that some topics cannot be dealt with in sufficient detail. The treatment of the 'network metaphor' is such a case. Langacker describes it as incapable of modelling entrenchment, representing hierarchical organisation and allowing for dynamic patterns of activation. This is at odds with the understanding of networks which other usage-based approaches such as connectionism and word grammar have, where linguistic information is thought to be stored in the links rather than in the nodes (Harris 1992; Hudson 2010). Also, while he demonstrates the benefits of semantic motivations for grammatical description, he only briefly deals with cases that fall short of such motivations.

Thomas Herbst's chapter, 'Constructions, generalizations, and the unpredictability of language' (pp. 55–94), further engages with the problem of semantic motivations in grammatical description. In his chapter, Herbst reconfirms the observation that there are limits to how well semantics predicts syntactic behaviour and that these limits pertain to what is commonly called 'statistical pre-emption' or 'competition'. This means that the occurrence of items in constructions also depends on how well these items are entrenched relative to a competing construction. Herbst proposes that the relationship between items and constructions can be described on a scale ranging from

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item-specificity (a construction only occurs with one specific item) to absolute generalisations (a construction can occur with a well-defined class of items). Most constructions fall somewhere in-between these two poles (i.e. item-relatedness). They can occur with a number of items, but these items do not form a well-defined class. A reason for this might be statistical pre-emption. He investigates this relationship in two case studies using a measure called 'items in construction' (similar to but different from collostructional strength; Stefanowitsch & Gries 2003). Based on these case studies, Herbst proposes to give a more prominent role to co-occurring items for the definition of a construction. From a language pedagogy perspective, providing a list of items that occur in a construction can facilitate learning. In terms of the mental representation of constructions, he argues that seeing co-occurring items as integral parts of constructions rather than as items attracted to constructions is a better metaphor because it highlights the status of constructions as abstractions over usage-events. He envisions a conception of argument structure constructions as consisting of a horizontal dimension, which consists of usage-events in which the construction occurs, and a vertical dimension, which is a generalisation over these usage-events and specifies the constituent structure and associated meanings.

Herbst's call for paying closer attention to the role of items in representations of constructions is a step towards further reducing the unpredictability of language, as it explains statistically motivated alternations between constructions. In this respect, Herbst's chapter is a renewed call for such a perspective, echoing that of his predecessors (Croft 2003; Stefanowitsch & Gries 2003; Goldberg 2006). It is, however, not entirely clear how Herbst's proposal for the mental representation of items-in-constructions relates or improves on previous approaches. It would have been interesting to learn more about the benefits, especially, of the horizontal dimension over other proposals such as probabilistically weighted links to items (Diessel 2011) or instance links (Goldberg 1995).

The second half of the volume focuses on the application of Construction Grammar in specific areas of linguistics. Martin Hilpert and Samuel Bourgeois' chapter, 'Intersubjectification in constructional change' (pp. 95-118), takes us into the linguistic heartland, namely historical linguistics. The chapter looks at the recent development of a discourse construction, the *jealous much*? construction, and explains this development in terms of the concepts of intersubjectification, constructionalisation and constructional change. The *jealous much?* construction prototypically occurs in dialogues where it signals a critical or sarcastic attitude of the speaker to something their interlocutor has said before. It consists of an anaphoric (nominal, verbal, adjectival or prepositional phrase) followed by the 'pivot' much and a question mark in writing or rising intonation in speech. It also requires a discourse antecedent that the anaphoric refers to. Formally, the construction cannot occur with determiners, comparatives and finite verbs, which, the authors argue, is because these are grounding elements, i.e. they locate a discourse entity relative to the speaker and hearer. They argue that these elements are incompatible because the anaphoric in jealous much? points out a general characteristic instead of pointing to a specific situation.

Semantically, the anaphoric often indicates critical or negative attitude, but it does not do so exclusively. The authors argue that this indicates that the construction has undergone subjectification. The negative meanings of the anaphoric elements have become associated with the construction itself. A further development, a proposed instance of intersubjectification, is the context-free uses of the construction. In these uses, the antecedent of the construction is not given in a previous string of dialogue. Rather, the addressee is invited to look for it in the following discourse. The authors interpret their findings in Traugott & Trousdale's (2013) framework of constructionalisation and constructional change. They argue that the instances of (inter)subjectification definitely qualify for constructional change having taken place, as they signify functional changes. It is unclear, though, whether there has also been constructionalisation (i.e. the coming into being of a construction), because it is not particularly evident that there have been formal changes as well. The jealous much? construction can still largely be treated as an instance of elliptical question constructions. Hilpert & Bourgeois, however, argue that the change from dialogical to context-free uses of the construction qualifies as a formal change.

Hilpert & Bourgeois' analysis of *jealous much*? improves on previous studies on this newly emerging construction by identifying further uses, but also by embedding the construction within a diachronic constructionist framework. It also highlights the importance of integrating the interpersonal dimension into constructionist analysis to arrive at a fuller picture of diachronic developments. While Hilpert & Bourgeois tell a convincing story in terms of (inter)subjectification, there are alternative interpretations for some of their findings. Their argument concerning the incompatibility with grounding elements in terms of generic rather than specific reference does not seem to be well supported by the data they discuss (the instances always seem to point to specific situations). They also do not argue in detail for why the change from 'dialogical' to 'context-free' uses qualifies as a formal rather than a functional change. An alternative interpretation could have been to highlight the anaphoric properties of the construction by characterising it more as an evaluative discourse-deictic demonstrative. This would explain the non-occurrence with grounding elements (because demonstratives are also grounding elements). The context-free uses could be reinterpreted as cataphoric reference, as they indicate that something which should be critically evaluated is still to come in discourse. Constructionalisation might still have taken place, since the requirement of an antecedent only exists with the *jealous much?* construction, but not with its presumed predecessor, the elliptic question construction; this would qualify as a formal change.

Sabine De Knop's chapter, 'From Construction Grammar to embodied construction practice' (pp. 119–46), focuses on the practical application of Construction Grammar in foreign language teaching (FLT) and its theoretical advantages. The application of Construction Grammar to language teaching follows in the footsteps of many recent FLT approaches that emphasise the role of pattern learning and prefer it over traditional 'vocabulary and grammar rules' type of approaches. De Knop demonstrates that Construction Grammar complements and offers further insights into such approaches

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by looking at the German preposition bis ('up-to/until') and how a constructionist conception of it can be helpful to foreign language learners. The bis construction has a variety of morphosyntactic and semantic properties that may be puzzling to foreign language learners. De Knop suggests that two types of teaching practices could help with learning such a construction: scaffolding and embodied teaching practice. The scaffolding approach uses the idea of a construction as an abstraction over exemplars with a prototype structure as a template for language teaching. Seeing that general rules are abstractions from actual instances, a constructionist teacher should refrain from teaching rules and should rather present the students with prototypical examples of the construction first, which they can then use to make sense of more peripheral ones and build up their own generalisations. This may be especially helpful with highly polysemous constructions such as bis. Embodied construction practice means the use of embodied exercises to learn the uses of a particular construction. De Knop believes that embodied construction practice may be especially helpful with problems related to transcodification (i.e. learning difficulties that arise from different conceptualisations in L1 and L2). Embodied strategies can help learners acquire L2 concepts because they simulate the conditions under which L1 learners would have learnt these concepts. Embodied exercises may imply re-enacting utterances with constructions such as bis or showing images or video sequences of such enactments.

The chapter shows not only the compatibility of constructionist concepts with current foreign language teaching practices (such as focus on pattern learning, multimodality, etc.) but also how Construction Grammar can be helpful in developing further teaching practices. One of the drawbacks (or rather uncertainties) that De Knop owns up to is that success of this sort of teaching practice has not yet been empirically tested against traditional approaches. While there are clear advantages (making the classroom a livelier and more active place), there also seem to be clear limits to both scaffolding and embodied construction practice. One of the limits is time devoted to language learning. A learner can only be exposed to a limited amount of instances of a construction which may not be enough to form a productive generalisation. Similarly, while embodied construction practice sounds like an exciting teaching strategy, it is also limited in terms of how frequently it can be applied – embodied teaching practice takes time in class and not every bit of language that learners are taught can be framed in such a way.

The final chapter of the volume maybe ventures furthest (and is thus aptly placed) – namely to the intersection of Construction Grammar with computation, neuroscience and cognitive science. In his chapter, 'Advances in Embodied Construction Grammar' (pp. 147–68), Jerome A. Feldman gives an overview of Embodied Construction Grammar (ECG), covering its basics, recent developments and success, and applications. Embodied Construction Grammar tries to synthesise neural computation with insights from cognitive linguistics, specifically as established at UC Berkeley. The theory uses concepts from cognitive linguistics, neuroscience and developmental psychology to build a conceptual framework for language. One set of concepts is 'schemas'. They are understood as primitive concepts of cognition and include notions

like image-schemata, causality and other basic processes (e.g. motion, action, change), all of which are embodied. Another set of concepts are called constructions. Constructions are pairings of form and meaning and are inherently semantically driven. This means that the unification of constructions is semantically, not formally, specified. To operationalise ECG, the computational program uses a semantic best-fit parser, which links an utterance to the ECG schemas and constructions. This also entails a probabilistic model for syntax and semantics, which is sensitive to syntactic constituent preferences and semantic roles and fillers preferences. This setup has already proved successful not only for dealing with traditionally problematic construction types such as passives, wh-questions and raising, but it has even been extended now to deal with coreference resolution and metaphor, which are challenging problems in natural language understanding. Feldman also shows that ECG can be practically applied and talks about a collaboration with the Hesperian Foundation, who develop health materials for areas without medical support. As part of the collaboration, they are developing a new search tool for the foundation's online health guides that is supposed to replace the simple 'bag-of-words' search engine currently used.

The chapter gives a solid and comprehensive overview of the basics and recent developments in ECG. It is especially interesting to see how much of basic Construction Grammar commitments survives into this computational application of it. This is especially commendable when many other NLU/NLP approaches are nowadays trying to be theory-neutral. It would have been interesting to see how ECG performs against these approaches, to get a feel for how successful a Construction Grammar based application can be.

Overall, the volume makes for an eclectic read, moving from the more theoretical chapters at the heart of the theory (Langacker, Herbst) to more peripheral fields of application (De Knop, Feldman). Though covering such a variety of different engagements with and applications of Construction Grammar, each contribution demonstrates its commitments to core cognitivist and constructivist values and thus presents Construction Grammar - despite all theory-internal disputes - as a unified theory capable of dealing with classic problems in linguistics as well as being ready for application further afield. This is especially conspicuous when looking at the first (Langacker) and the last (Feldman) chapters of the volume. Although working in different modalities (with different research foci if not different research aims), both chapters exhibit striking similarities, from the way in which they talk about constituency formation as 'semantic integration' or 'semantic unification', to their proposed solutions for coreference resolution. At the same time, the diversity of 'borders' explored might make many readers 'border crossers' as well engaging them with applications of Construction Grammar out of their comfort zone. This diversity is, however, also one of the weak spots of the volume. Many contributions seem to shy away from going into more detailed analyses and dealing with controversies. This is understandable given the constraints on space, probably, but also makes the volume less informative than it could have been. Some chapters, thus, suffer from trying to cover too much ground (Langacker), while others could have covered more (De Knop).

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Overall, though, by successfully engaging with more 'global' matters, the volume shows that Construction Grammar is no longer a niche framework, but a serious alternative to other well-established approaches to language description.

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**Turo Hiltunen and Irma Taavitsainen (eds.)**, *Corpus pragmatic studies on the history of medical discourse* (Pragmatics & Beyond New Series 330). Amsterdam and Philadelphia: John Benjamins, 2022. Pp. vii + 322. ISBN 9789027211101.

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Corpus Pragmatic Studies on the History of Medical Discourse (2022), edited by Turo Hiltunen and Irma Taavitsainen for John Benjamins, is a fascinating collection of