Constructional analysis in multimodal perspective

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Construction Grammar in its numerous variants, diverse points of emphasis, and expanding reach to other disciplines inside and outside of linguistics has become a robust analytic and methodological approach, with a wide acceptance within the broader domain of cognitively and functionally oriented linguistic scholarship. The acknowledgement by all variants of the theoretical and empirical significance of the construction, as a pairing of form and meaning that functions as the organizational unit of speakers' knowledge and grammar, forms the basis of a theoretical framework that has yielded a wealth of research on morpho-syntactic and discourse-pragmatic phenomena, and their integration in constructions, in many different languages.

The quest for a cognitively realistic and comprehensive analysis of speakers' knowledge motivates work focusing on the phonetic/prosodic features of constructions as well as on non-verbal elements including gestures, postures, facial expressions and eye gaze that may regularly accompany speech. In this panel, we take such a broad view of multimodality, that includes both sound and broadly-defined gesture, aiming to a) approach the issue from a truly interdisciplinary perspective, independently considering intrinsic regularities and constraints associated with sound/prosody and gesture as systems in their own right, b) extend existing work that investigates and attempts to integrate such information into the system of grammar, and c) promote meaningful discussion on the capabilities and limitations of Construction Grammar as a framework that can model and integrate the multimodal aspects of communication.

The interest of constructionists in sound patterns, including prosody and phonetic reductions, correlates with work on discourse markers and dialogic constructions both of which are prominently associated with prosodic cues. Comprehensive and realistic representations of spoken language in such studies have referred to the phonetic features associated with particular constructions in order to provide adequate analyses of the expressions at hand, differentiate them from other related constructions and inform decisions on polysemy, or embed them in broader constructional families defined on pragmatic *and* prosodic terms. For example, Pitch range variation, which has been found to express categorical differences in meaning cross-linguistically (e.g. Ladd 2008; Borràs-Comes, Vanrell, Prieto 2014; Ward 2019), is appealed to in constructional work which identifies stable correlations between sentence types and specific intonation contours (e.g. Lambrecht 1994; Michaelis & Lambrecht 1996), pragmatic functions and intonation contours (Marandin 2007; Ogden 2010; Ward 2019; Fischer & Niebuhr submitted), or particular constructions and prosodic regularities (Fried & Östman 2005; Terkourafi 2010; Fischer 2010; Nikiforidou et al. 2014; Fried & Machač 2019; Pons Bordería & Fischer to appear). Explicitly demonstrated in all above-mentioned work is the need for robust phonetic analyses and large-scale corpus data.

At the same time, the preceding work has given rise to theoretically-challenging and still open questions concerning the representation of spoken language and the integration of phonetic information into construction grammar, the appropriate level of schematicity for including such a formal feature as prosody, and the independence (or not) of the prosodic modality vis-à-vis grammar.

While the preoccupation with co-speech gesture and its relation to grammar is more recent, it has given rise to a surprising amount of literature that challenges existing views of constructional analysis and genuinely tests its capabilities and limitations. Starting with pioneering work by Steen and Turner (2013), also Sweetser (2009), which includes important methodological suggestions and concerns, constructionists have looked at non-verbal features of communication, including gesture, eye-gaze, and facial expression. In principle compatible with the cognitive-linguistic agenda (Langacker 2008) and the inherently multimodal nature of communication, the incorporation of gestural information into grammar nevertheless raises serious theoretical and methodological questions with answers still pending (see the insightful discussion by Zima & Bergs (2017) and Ziem (2017); also Hoffmann (2017), Schoonjans (2017). As pointed out by Feyaerts, Brône, & Oben (2017), multimodal research has revealed fairly entrenched associations of verbal and kinesic structures with conventionalized semantics, raising the possibility of considering them as multimodal constructions. Relevant work includes Zima (2014, 2017) on gestural correlates of motion and spatial distance constructions, Lanwer (2017) on appositional patterns, Mittelberg (2014, 2017) on German existential 'there are' constructions, and Pagán Cánovas & Valenzuela (2017) on time expressions. Approaching the issue from the side of gesture, studies like those by Turner (2017), Bressem & Müller (2017), and Jehoul, Brône & Feyaerts (2017) identify a broad range of verbal expressions all associated with a particular gesture or shrug. While all of this work has a solid empirical basis, at the same time it highlights the lack of appropriately annotated corpora as well as the inadequacy of common usage-based criteria, such as frequency, for identifying multimodal constructions. As acknowledged in all work cited above, the challenge of a *multimodal* construction grammar is still very real with several complex issues demanding answers.

Against this background, we expect contributions to address one or more of the following:

- Intrinsic differences among the different modalities and concomitant constraints, for example: nature of respective signs, functional/semantic space in the verbal, phonetic (prosodic as well as segmental), and gestural modalities, mapping of phonetic and gestural modalities onto the grammatical shape and/or functional status of specific patterns, conventionality in phonetic shape and gesture
- Identifying and finessing criteria for multimodal constructions: obligatoriness, frequency, salience, prototypicality, and perhaps yet other conditions
- Developing empirical methodology for multimodal constructions: corpora, experimental approaches, psycholinguistic input and methods
- Integrating non-verbal information into a comprehensive system of grammar: constructional modeling and representation, relevant features and attributes for phonetic and gestural information, preserving inheritance relations and constructional networks in multimodal constructional analysis
- Theoretical repercussions: capabilities and limitations of Construction Grammar.

References

Borras-Comes, Joan, Maria del Mar Vanrell & Pilar Prieto (2014), The role of pitch range in establishing intonational contrasts, *Journal of International Phonetic Association* 44(1), 1-20.

Bressem, Jana & Cornelia Müller (2017), The "Negative-Assessment-Construction" – A multimodal pattern based on a recurrent gesture? *Linguistics Vanguard* special issue 3(s1). DOI 10.1515/lingvan-2016-0053

Feyaerts, Kurt, Geert Brône, & Bert Oben (2017), Multimodality in Interaction, In B. Dancygier (ed.), *The Cambridge handbook of Cognitive Linguistics*, 135-156. Cambridge University Press. DOI: https://doi.org/10.1017/9781316339732.010

Fischer, Kerstin (2010), Beyond the sentence: Constructions, frames and spoken interaction, *Constructions and Frames* 2(2), 185-207.

Fischer, Kerstin & Oliver Niebuhr (submitted), The interplay of prosody, position and pragmatic function in framing signals: A construction grammatical perspective.

Fried, Mirjam & Jan-Ola Östman (2005), Construction grammar and spoken language: The case of pragmatic particles, *Journal of Pragmatics* 37, 1752-1778.

Fried, Mirjam & Pavel Machač (2019), Sound patterns as interpretive clues in spontaneous interaction, Paper presented at ICLC-15, Osaka Japan.

Hoffmann, Thomas (2017), Multimodal constructs – multimodal constructions? The role of constructions in the working memory, *Linguistics Vanguard* special issue 3(s1). DOI 10.1515/lingvan-2016-0042

Jehoul, Annelies, Geert Brône, & Kurt Feyaerts (2017), The shrug as marker of obviousness. Corpus evidence from Dutch face-to-face conversations, *Linguistics Vanguard* special issue 3(s1). DOI 10.1515/lingvan-2016-0082

Ladd, Robert (2008), *Intonational phonology*, Cambridge: Cambridge University Press.

Langacker, Ronald (2008), *Cognitive grammar: A basic introduction*, Oxford: Oxford University Press.

Jens Philipp Lanwer, Jnes Philip (2017), Apposition: A multimodal construction? The multimodality of linguistic constructions in the light of usage-based theory, *Linguistics Vanguard* special issue 3(s1). DOI 10.1515/lingvan-2016-0071

Marandin, Jean-Marie (2007), Contours as constructions, *Constructions Online*.

Michaelis, Laura & Knud Lambrecht (1996), The exclamative sentence type in English, in A. E. Goldberg (ed.), *Conceptual structure, discourse and language*, 375–389, Stanford, CA: Center for the Study of Language and Information.

Mittelberg, Irene (2014), Multimodal existential constructions in German and English, Presentation at GCLA 6, Erlangen, Nurnberg.

Mittelberg, Irene (2017), Multimodal existential constructions in German: Manual actions of giving as experiential substrate for grammatical and gestural patterns, *Linguistics Vanguard* special issue 3(s1).

Nikiforidou, Kiki, Sophia Marmaridou, & George. K. Mikros (2014), What's in a dialogic construction? A constructional approach to polysemy and the grammar of challenge, *Cognitive Linguistics* 25-4, (2014), 655-699.

Ogden, Richard (2010), Prosodic constructions in making complaints, in D. Barth-Weingarten, E. Reber and M. Selting (eds.), *Prosody in interaction*, 81-103, Amsterdam: John Benjamins.

Pagán Cánovas, Cristóbal & Javier Valenzuela (2017). Timelines and multimodal constructions: Facing new challenges, *Linguistics Vanguard* special issue 3(s1). DOI 10.1515/lingvan-2016-0087

Pons Bordería, Salvador & Kerstin Fischer (under revision), Using discourse segmentation to account for the polyfunctionality of discourse markers: The case of *well*.

Schoonjans, Steven (2017), Multimodal Construction Grammar issues are Construction Grammar issues, *Linguistics Vanguard* special issue, 3(s1). DOI 10.1515/lingvan-2016-0050.

Steen, Francis & Mark Turner (2013), Multimodal construction grammar, in M. Borkent, B. Dancygier & J. Hinnell (eds.), *Language and the creative mind*, 255–274, Stanford, CA: CSLI Publications.

Sweetser, Eve (2009), What does it mean to compare language and gesture? Modalities and contrasts, in J. Guo, E. Lieven & N. Budwig (eds.), *Crosslinguistic approaches to the psychology of language: Studies in the tradition of Dan Isaac Slobin*, 357–366, New York: Psychology Press.

Terkourafi, Marina (2010), Don't go *V-ing* in Cypriot Greek: Semantic, pragmatic, and prosodic aspects of a prohibitive construction, *Constructions and Frames* 2(2), 208-241.

Turner, Mark (2017), Multimodal form-meaning pairs for blended classic joint attention, *Linguistics Vanguard* special issue 3(s1). DOI 10.1515/lingvan-2016-0043

Ward, Nigel G. (2019), *Prosodic patterns in English conversation*. Cambridge University Press.

Ziem, Alexander (2017), Do we really need a Multimodal Construction Grammar? *Linguistics Vanguard* special issue 3(s1). DOI 10.1515/lingvan-2016-0095

Zima, Elisabeth (2014), English multimodal motion constructions. A Construction Grammar perspective, Studies van de BKL – Travaux du CBL – Papers of the LSB2014b 8. http://uahost.uantwerpen.be/linguist/SBKL/sbkl2013/Zim2013.pdf.

Zima, Elisabeth (2017), On the multimodality of [all the way from X PREP Y], *Linguistics Vanguard* special issue 3(s1). DOI 10.1515/lingvan-2016-0055

Zima, Elisabeth & Alexander Bergs (2017), Multimodality and construction grammar, *Linguistics Vanguard*, special issue 3(s1). DOI 10.1515/lingvan-2016-1006