## From theory to empiry and back again: A cognitively inspired model for complex verbal constructions in Romance.

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Verbal periphrases are a common type of complex verbal constructions, especially in Romance languages (as compared to e.g. Germanic languages). Broadly defined as a combination of two (or more) verbs – sometimes joined by a preposition or conjunction – forming a single predicative unit, they are considered a central characteristic of all Romance languages, expressing temporal, aspectual, modal and diathetic values (e.g. Pusch & Wesch 2003, Gómez Torrego 1999). Due to their high (formal and functional) variability as well as their reduced compositionality, different approaches have already been proposed to tackle this phenomenon (e.g. Laca 2004, Bertinetto 2001, Olbertz 1998; recently also from a constructivist perspective, e.g. Garachana 2020, Füreder 2021, Füreder in press). A cognitive account, however, is still missing. The present paper thus sets out to fill this gap by suggesting a model based on experimental psycholinguistic data.

Various studies show that experimental methods can prove very valuable in theory building and shaping (e.g. Boye & Harder 2012, Boye & Bastiaanse 2018, Hennecke & Wolf 2021, Van Lancker Sidtis 2004). Methods such as self-paced reading, eye-tracking or ERPs have been found highly insightful in psycholinguistics, particularly with respect to multi-word units (e.g. Siyanova-Chanturia 2013, Schmitt & Underwood 2004, Siyanova-Chanturia & Van Lancker Sidtis 2019), of which verbal periphrases are also a part. In order to investigate how periphrastic verbal constructions in Romance are processed by native and non-native speakers, a self-paced reading study is being administered to a L1 German experimental group and a L1 Romance control group. To this end, a selection of verbal periphrases in Spanish, French and Italian is presented in a non-cumulative reading paradigm on a computer screen, followed by an acceptability rating and a comprehension question.

First results from Spanish (12 participants, 80 experimental items) suggest a divide into three broad groups of periphrastic verbal constructions: (i) highly grammaticalised units with rather low compositionality (such as compound tenses; e.g. fr. *venir de* + inf. 'have just done', sp. *ir a* + inf. 'be going to'); (ii) fairly free combinations with high compositionality (such as modal verb constructions; e.g. it. *dovere* + inf. 'must'); (iii) constructions between the extreme 'poles' (i) and (ii) with position or motion verbs (e.g. it. *stare* + ger. 'be doing', sp. *irlandarlvenir* + ger. 'do gradually') and with semi-auxiliaries (e.g. fr. *se mettre à* + inf. 'begin', sp. *dejar de* + inf. 'stop'). Highest acceptability ratings and lowest reaction times were found for constructions of type (i) and (ii), lower acceptability ratings and higher reaction times for constructions in between. Hence, these groupings appear in favour of a 'continuum model' spread between the 'poles' morphosyntax (i) and lexicon (ii). Despite the preliminary character of these results, they might serve as an indicator for the constructional status of the individual periphrastic constructions and allow (at least cautious) predictions about a possible cognitive representation. Taking into account the psycholinguistic and cognitive reality of language as well, the model aims to add to a fuller understanding of periphrastic verbal constructions in Romance.

## References

- Bertinetto, Pier M., 2nd edn. 2001. Il verbo. In Lorenzo Renzi, Giampaolo Salvi & Anna Cardinaletti (eds.), *Grande grammatica italiana di consultazione*, vol. 2, 13-161. Bologna: il Mulino.
- Boye, Kasper & Roelien Bastiaanse. 2018. Grammatical versus lexical words in theory and aphasia: Integrating linguistics and neurolinguistics. *Glossa* 3(1), 1-18.
- Boye, Kasper & Peter Harder. 2012. A usage-based theory of grammatical status and grammaticalization. *Language* 88(1), 1-44.
- Füreder, Birgit. 2021. Verbalperiphrasen aus konstruktionsgrammatischer Perspektive: Eine Annäherung. In Hans-Jörg Döhla & Anja Hennemann (eds.), *Konstruktionsgrammatische Zugänge zu romanischen Sprachen*, 143-170. Berlin: Frank & Timme.
- Füreder, Birgit. In press. Phrasemes and/or constructions? Periphrastic verbal expressions in Spanish, Italian and French revisited.
- Garachana, Mar (ed.). 2020. La evolución de las perífrasis verbales en español: Una aproximación desde la gramática de construcciones diacrónica y la gramaticalización. Berlin: Lang.

- Gómez Torrego, Leonardo. 1999. Los verbos auxiliares: Las perífrasis verbales de infinitivo. In Ignacio Bosque & Violeta Demonte (eds.), *Gramática descriptiva de la lengua española*, vol. 2, 3323-3389. Madrid: Espasa Calpe.
- Hennecke, Inga & Johanna Wolf. 2021. Chunks first, syntax second? Aphasiedaten als Quelle für eine konstruktionsgrammatische Sprachverarbeitungstheorie. In Hans-Jörg Döhla & Anja Hennemann (eds.), *Konstruktionsgrammatische Zugänge zu romanischen Sprachen*, 215-240. Berlin: Frank & Timme.
- Laca, Brenda. 2004. Romance 'Aspectual' Periphrases: Eventuality Modification versus 'Syntactic' Aspect". In Jacqueline Guéron & Jacqueline Lecarme (eds.), *The syntax of time*, 425-440. Cambridge & London: MIT Press.
- Olbertz, Hella. 1998. *Verbal periphrases in a functional grammar of Spanish*. Berlin & Boston: De Gruyter.
- Pusch, Claus D. & Andreas Wesch. 2003. Verbalperiphrasen zwischen Grammatik, Lexikon und Pragmatik. In Claus D. Pusch & Andreas Wesch (eds.), Verbalperiphrasen in den (ibero-) romanischen Sprachen. Perifrasis verbals en les llengües (ibero-)romàniques. Perifrasis verbales en las lenguas (ibero-)románicas, 1-10. Hamburg: Buske.
- Schmitt, Norbert & Geoffrey Underwood. 2004. Exploring the processing of formulaic sequences through a self-paced reading task. In Norbert Schmitt (ed.), *Formulaic sequences: Acquisition, processing and use*, 173-189. Amsterdam & Philadelphia: Benjamins.
- Siyanova-Chanturia, Anna. 2013. Eye-tracking and ERPs in multi-word expression research: A state-of-the-art review of the method and findings. *Mental Lexicon* 8(2), 245-268.
- Siyanova-Chanturia, Anna & Diana Van Lancker Sidtis. 2019. What on-line processing tells us about formulaic language. In Anna Siyanova-Chanturia & Ana Pellicer-Sánchez (eds.), *Understanding formulaic language: A second language acquisition perspective*, 38-61. London & New York: Routledge.
- Van Lancker Sidtis, Diana. 2004. When novel sentences spoken or heard for the first time in the history of the universe are not enough: Toward a dual-process model of language. *International Journal of Language and Communication Disorders* 39(1), 1-44.