

## Whipping the Linking Algorithm into the feature structure shape

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The Linking Algorithm (Robert D. Van Valin Jr. 2005, ch. 5) is a crucial part of RRG. Given that, new advances in RRG development and application might require its elaboration to cover more challenging phenomena.

In our talk, we suggest a static linking system to be used instead of the procedural linking algorithm. Our architecture refines the role of constructional schemas (Robert D. Van Valin Jr. 2005, pp. 131–135) in the linking and offers some ideas for their further usage.

Our research grounds on the formalization of RRG suggested in Osswald and Kallmeyer 2018. We inherit their way of producing RRG syntactic representations with Tree Wrapping Grammar (Kallmeyer, Osswald, and Robert D Van Valin 2013) structures. We also follow the idea of representing RRG semantic structures in the form of decompositional frames (Lichte and Petitjean 2015). The eXtensible MetaGrammar (XMG, Crabbé et al. 2013; Petitjean, Duchier, and Parmentier 2016) framework is used to write appropriate formalized descriptions. This methodology implies an extensive use of features that can be assigned to different entities: syntactic nodes, elements of frames, lexical items, etc. Translating the linking guidelines used in the classical Linking Algorithm into statements concerning feature requirements is the central idea of the present paper.

Our talk opens with a review of the classical Linking Algorithm and the existing additions and alternatives. Special attention is paid to spotting what parameters of languages, constructions and individual sentences are invoked and appear to be relevant for the successful linking. Then, the translation of general rules into feature terms is offered. Afterward, we try to answer how to ensure the application of those general rules while linking two representations of a given sentence. In this part of the talk, we specifically discuss the role of the word order in identifying syntactic arguments. We also show some examples of linking in head-marking (Nichols 1986) languages and examine challenges they represent for linking. Next, we introduce constructional schemas in this linking system to observe their interplay with the feature structures conditioned by general rules. Finally, we show some ready-to-go linking scenarios and offer a pipeline to expand this linking scheme to cover more phenomena and more languages.

### References:

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