

# The Syntax of Discontinuous Reciprocal Constructions

Peter Hurst – University of Melbourne

Many verbally marked reciprocal constructions allow what has become known as a discontinuous alternation formed from the combination of a subject (which may be singular) and a comitative phrase - and it is the entities contained within these phrases which symmetrically participate in the situation described by the predicate (for example, see (1c) below). This additional phrase has some surprising properties: despite being marked as a comitative phrase (and this is usually the case cross-linguistically), it is obligatory and both semantically and syntactically distinct from the subject NP. The exact status of this construction and its relation to its more basic counterparts has proved challenging for theoretical analysis (see Rákosi 2008, Siloni 2008, Dimitriadis 2004, 2008 for discussion). In this paper I present an LFG-based analysis of these constructions and show how these properties are predicted by my explanation for how the discontinuous reciprocal construction is related to both its intransitive reciprocal counterpart and ultimately the transitive base from which they are derived. My explanation draws upon the work of two researchers in the area of LFG; György Rákosi (2008) who introduces the idea of an argument unspecified for a thematic role (a “partner” argument), and James Webb (2008) who proposes a two-tiered extension to argument structure as a means of understanding the distribution of instruments in English. By analysing a partner argument in a manner similar to that of Webb's analysis for instruments, I show how the resulting predicate's richer a-structure explains the relationship between transitive verbs and their two non-transitive reciprocal counterparts – allowing for an explanation of discontinuous reciprocal constructions which can be incorporated into a general theory of verbally marked reciprocals.

Bantu languages in particular form these constructions productively as exemplified by the Swahili data below. I follow the terminology used by Rákosi (2008) and call the discontinuous reciprocal construction in (1c) a *dyadic* reciprocal construction and the construction in (1b) *monadic*:

- |      |   |   |
|------|---|---|
| (1a) | <i>Juma a-na-m-penda Halima</i><br>Juma he-prs-her-loves Halima<br>“Juma loves Halima”  | <i>transitive:</i><br>SUBJ Verb OBJ   |
| (1b) | <i>Juma na Halima wa-na-pend-an-a</i><br>Juma and Halima they-prs-love-rec<br>“Juma and Halima love each other”   | <i>monadic reciprocal construction:</i><br>SUBJ <sub>pl</sub> Verb-rec                  |
| (1c) | <i>Juma a-na-pend-an-a na Halima</i><br>Juma he-prs-love-rec with Halima<br>lit: Juma loves each other with Halima<br>“Juma and Halima love each other” | <i>dyadic reciprocal construction</i><br>SUBJ Verb-rec OBL<br><br>Vitale (1981:145,146) |

In previous work, Rákosi (2008) goes part way to answering how these constructions might be related by examining the monadic and dyadic alternations of symmetric verbs in Hungarian. He limits his analysis to lexicalised verbs which do not productively form these reciprocal constructions from transitive counterparts. This allows him to consider the discontinuous reciprocal construction as being basic with the monadic reciprocal construction being formed from it by a process similar to argument binding (see Alsina 1996). The key insight he makes is that these verbs have two arguments, one being a proto-agent (which maps to SUBJ), and the other being a partner (which maps to OBL). The partner argument (represented by [ ] in his examples below) is under-specified for a thematic role and as such, standard feature assignment requires that it receive a [-o] feature (see Rákosi 2008:444-446):

- |   |           |  |
|---|-----------|--|
| <u>(2a) Hungarian: dyadic reciprocal construction</u> |           | $\text{quarrel}_{\text{dyadic}} \langle [P-A] [ ] \rangle$ |
| <i>A katonák vesz-eked-t-ek az őrmester-rel</i>       | intrinsic | -o -o  |
| the soldier-pl quarrel-rec-pst-3pl the sergeant-with  | default   | -r +r  |
| “The soldiers quarrelled with the sergeant”           |           | SUBJ OBL   |

The monadic construction is formed from the dyadic construction by grouping two arguments in a-structure and treating them as a whole with respect to argument mapping. Notationally this is indicated by the extra pair of square brackets around the two arguments:

- |  |           |   |
|--|-----------|---|
| <u>(2b) Hungarian: monadic reciprocal construction</u> |           | $\text{quarrel}_{\text{monadic}} \langle [ [P-A] [ ] ] \rangle$ |
| <i>A katonák vesz-eked-t-ek</i>                        | intrinsic | -o  |
| the soldiers quarrel-rec-pst-pl                        | default   | -r  |
| “The soldiers quarrelled”                              |           | SUBJ  |

Despite providing a synchronic analysis of the monadic/dyadic alternation in Hungarian, Rákosi's analysis cannot address how these constructions came to be formed from a transitive verb in the first place – and why dyadic reciprocal constructions should contain reciprocal morphology. As such, this analysis cannot be used to explain the three-way alternation seen in Bantu languages (exemplified by the Swahili above). This is because the basic lexical item in their analysis must be the transitive verb: and given that its argument structure typically selects a proto-agent and proto-patient, there is no obvious way to account for the oblique argument in the corresponding dyadic reciprocal construction.

The approach I take is to treat the accompaniment phrase in (1c) as a type of argument-adjunct along the lines of Webb's analysis for instrument phrases for English. Grimshaw (1990:108) defines an a-adjunct as one which cannot be assigned a theta-

role but which nevertheless is licensed by a-structure. As such, a-adjuncts have some sort of intermediate status between an argument and an adjunct. Accompaniment phrases are suitable candidates for analysis as a-adjuncts: like arguments, they participate in the event described by the predicate and are usually analysed as forming part of their predicate's conceptual structure (see Jackendoff 1990); like adjuncts they are optional and can be productively added to any semantically suitable predicate. Under this analysis, there are two tiers of a-structure, the first tier specifies canonical arguments: those which are uniquely selected by the predicate and which are obligatory. The second tier specifies the a-adjuncts and, if present, their mapping takes place after the first-tier arguments. Note that I will not follow Webb's analysis of assigning a thematic role to the a-adjunct, and instead leave its thematic description as underspecified (as per Rákosi's analysis and in line with Grimshaw (1990)). In my analysis below, the monadic reciprocal construction is first formed through a process of argument binding (3b), and the discontinuous reciprocal construction is subsequently formed from it with the addition of an a-adjunct (3c):

(3a)	<i>Juma a-na-m-penda Halima</i> Juma he-prs-her-loves Halima “Juma loves Halima”	intrinsic default	love<[P-A] [P-P]> -o -r -r SUBJ OBJ
(3b)	<i>Juma na Halima wa-na-pend-an-a</i> Juma and Halima they-prs-love-rec “Juma and Halima love each other”	intrinsic default	love_rec <sub>monadic</sub> <[P-A] [P-P] > -o -r SUBJ
(3c)	<i>Juma a-na-pend-an-a na Halima</i> Juma he-prs-love-rec with Halima lit: Juma loves each other with Halima “Juma and Halima love each other”	intrinsic default	love_rec <sub>dyadic</sub> <[P-A] [P-P] >, tier 2: <[ ] > -o -o -r +r SUBJ OBL

This analysis not only accounts for the syntax of reciprocal constructions in Bantu languages, but also has the virtue of being able to provide a natural account for the grammaticalisation process so common to verbally marked reciprocal constructions more generally. The relatively complex argument structure of the discontinuous reciprocal construction maps to just two grammatical functions and so is highly susceptible to grammaticalisation. In this process, the two bound arguments mapped to the subject NP are treated as a single argument and the partner a-adjunct becomes a first-tier partner argument:

$$(4) \quad \text{verb\_rec}_{\text{dyadic}}\langle [P-A][P-P] \rangle, \langle [ ] \rangle \rightarrow \text{verb}_{\text{sym}}\langle [P-A][ ] \rangle$$

$$\text{RECIP}(\{\text{entities}\}, \lambda x. \lambda y. \text{verb}_{\text{basic}}(x, y)) \quad \lambda x. \lambda y. \text{verb}_{\text{lexicalised}}(x, y)$$

This newly formed verb is now *inherently* symmetric - i.e., the symmetry of the event is no longer associated with the reciprocal morpheme (see Dalrymple et al. (1998) for discussion), but is now implied as part of the meaning of the new verb. As such, it is possible for the symmetry of the event to be cancelled - unlike that of the equivalent monadic reciprocal construction in the same situation. This is in fact seen in Hungarian (and other languages); for example, “quarrel” - *veszeked* in Hungarian when used in a dyadic construction does not have to be symmetric as evidenced by (5) below:

(5) *Én nem veszeked-t-em János-sal ő veszeked-ett vel-em*  
I not quarrel-pst-1sg John-with he quarrel-pst with-1sg  
“I was not quarrelling with John, he was quarrelling with me”

Rákosi (2008:423)

## Conclusion

By building on recent work in LFG (Rákosi 2008, Webb 2008), I have provided a unified account of verbally marked reciprocal constructions whereby a dyadic reciprocal construction is analysed as being formed from a monadic construction in conjunction with a partner a-adjunct. This analysis is not only sensitive to these constructions' diachronic development from a basic transitive verb, but also provides some insight into why the dyadic reciprocal construction is so prone to grammaticalisation – and why it has subtly different semantics with respect to symmetry when compared to its monadic counterpart.

## References

- Alsina, A. 1996. *The role of argument structure in grammar: Evidence from Romance*. Stanford: CSLI Publications.
- Dalrymple, M., Kanazawa, M., Kim, Y., Mchombo, S., Peters, S. (1998). Reciprocal Expressions and the Concept of Reciprocity in *Linguistics and Philosophy* 21:2, 159-210.
- Dimitriadis, A. 2004. *Discontinuous Reciprocals*. Manuscript: Utrecht institute of Linguistics OTS.
- Dimitriadis, A. 2008. *Irreducible symmetry in reciprocal constructions*. In König & Gast 2008.
- Grimshaw, J. 1990. *Argument structure*. Cambridge, MA: The MIT Press.
- Jackendoff, R. 1990. *Semantic structures*. Cambridge, MA: The MIT Press.
- König, E. & Gast, V. 2008. *Reciprocals and reflexives: theoretical and typological explorations*. Berlin, Germany.
- Rákosi, G. 2008. *The argument structure of inherently reflexive and reciprocal predicates*. In König & Gast 2008.
- Siloni, T. 2008. *The syntax of reciprocal verbs: an overview*. In König & Gast 2008.
- Vitale, A. 1981. *Swahili syntax*. Dordrecht – Cinnaminson: Foris Publications.
- Webb, J. 2008. *Instruments in LFG's argument structure*. Manuscript: Master's thesis, University of Oxford.
- Available at: <http://ora.ouls.ox.ac.uk/objects/uuid%3Ae887fcc8-c2d3-4de6-a439-05e8461efdf3>