

An RRG analysis of Halkomelem ditransitive constructions:

Integrating head-marking and dependent-marking properties

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Introduction

Motivation

RRG claims to be oriented towards typology

Second, the theory is greatly concerned with typological issues. In particular, it seeks to uncover those aspects of clause structure which are found in all human languages; hence the conception of clause structure it posits must be equally applicable to <...> languages such as Dyirbal and Malayalam, to head-marking languages like Lakhota and Tzotzil <...>, and to fixed-order, configurational, dependent-marking languages like English and Icelandic.

(Van Valin 2005, pp. 3–4)

Research question

- Analyses of prototypical dependent-marking languages are suggested by Van Valin 2005.
- Some other language types are illustrated by Van Valin 2005, pp. 16–19.
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Research question

What about a non-prototypical language, which combines both head-marking and dependent-marking properties?

Data

Halkomelem ditransitive constructions challenge the existing algorithms of syntactic analysis and linking



Figure 1: The Halkomelem territory¹

- Halkomelem scores -2 according to Nichols 1986
- Halkomelem has a number of valence-modifying suffixes (Gerds 2010)
- Ditransitive constructions demonstrate a complex pattern of marking (see further)

¹Image source: www.sfu.ca/halk-ethnobiology/html/northamerica.htm

Method

The RRG formalization (Osswald and Kallmeyer 2018)

- Syntactic and operator projections are combined and organized as labeled trees, where the labels can have additional features.
- Features can be propagated from lower-level constituents to some upper-level ones.
- Additional constraints may be applied to features, e. g. “values of feature F for constituents C_1 and C_2 must unify”.

Background

An RRG analysis for head-marking languages I

- The layered structure of the word is postulated
- The verb affixes are considered to be the true core arguments

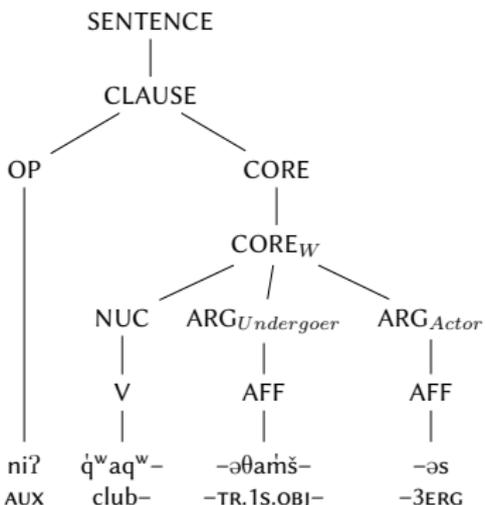


Figure 2: A tree for 'He/she clubbed me.' (Gerdt's 2010, p. 15, ex. 55)

An RRG analysis for head-marking languages II

- The independent RPs are core external, but clause internal – “extra-core slots” (ECSs)

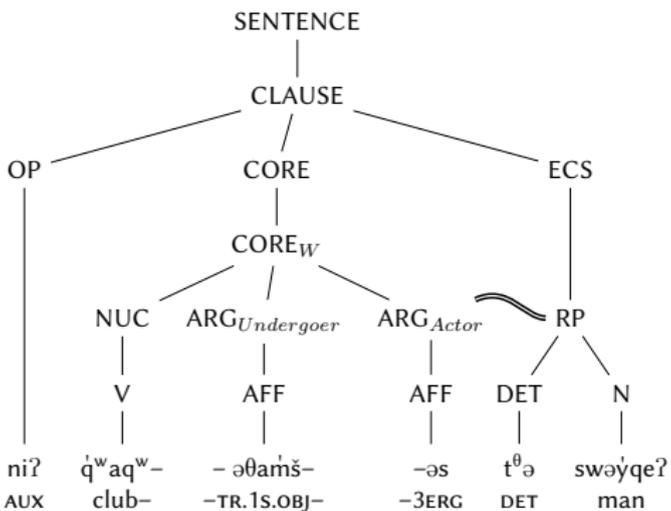


Figure 3: A tree for ‘The man clubbed me.’ (Gerds 2010, p. 14, ex. 53)

Agreement and case marking I

- First and second person subject pronouns appear as second position clitics, while object pronouns appear as verb suffixes (nominative/accusative pattern).

(1) nem̄ cən sam̄-əs-t ɬə sɬeniʔ ʔə θə-nə snəx^wəɬ
 go 1S.SBJ sell-DAT-TR DET woman OBL DET-1S.POSS canoe
 ‘I’m going to sell my car to the woman.’ (Gerds 2010, p. 4, ex. 12)

(2) niʔ ʔam-əs-θamš-əs ɬə sɬeniʔ ʔə k^wθə puk^w
 AUX give-DAT-TR.1S.OBJ-3ERG DET woman OBL DET book
 ‘The woman gave me the book.’ (Gerds 2010, p. 17, ex. 66a)

Agreement and case marking II

- Third-person is unmarked when it is the subject of an intransitive clause or the object of a transitive clause, but marked with the agreement suffix when it is the subject of a transitive clause (ergative/absolutive pattern).

(3) niʔ cən qʷaqʷ-ət-∅
 AUX 1S.SBJ club-TR-3OBJ
 'I clubbed him/her/it.' (Gerdts 2010, p. 15, ex. 56)

(4) niʔ qʷaqʷ-əθamš-əs
 AUX club-TR.1S.OBJ-3ERG
 'He/she clubbed me.' (Gerdts 2010, p. 15, ex. 55)

Agreement and case marking III

- In ditransitive constructions, the Agent and the Recipient are preceded by a determiner. The Theme is marked by an oblique preposition (secundative alignment).

(5) nem̓ cən sam̓-əs-t ɬə sɬeniʔ ʔə θə-nə snəx^wəɬ
 go 1s.SBJ sell-DAT-TR DET woman OBL DET-1s.POSS canoe
 'I'm going to sell my car to the woman.' (Gerdts 2010, p. 4, ex. 12)

Our analysis

Construction in question

A ditransitive construction requires a predicate and three arguments

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AUX give-DAT-TR.1S.OBJ-3ERG DET woman OBL DET book
'The woman gave me the book.'

- the verb requires a transitivizer and a dative applicative marker
- the Agent is indexed on the verb and specified with a plain RP
- the Theme is realized as an RP preceded by an oblique preposition
- the Recipient is realized as a verb suffix

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‘The woman gave me the book.’

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 how should these morphemes be analyzed?
- the Agent is indexed on the verb and specified with a plain RP
 confirms to the head-marking analysis
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 is lost if verb affixes alone are considered as true arguments
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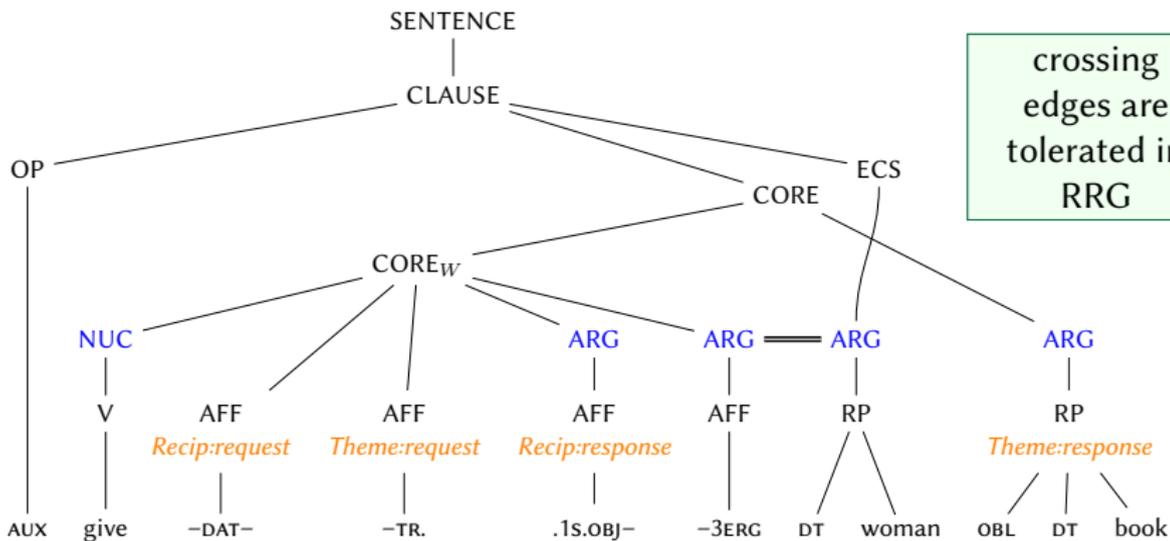
Both dependent-marking and head-marking analyses fail

niʔ ʔam-əs-θamš-əs ɬə sɛniʔ ʔə k^wθə puk^w
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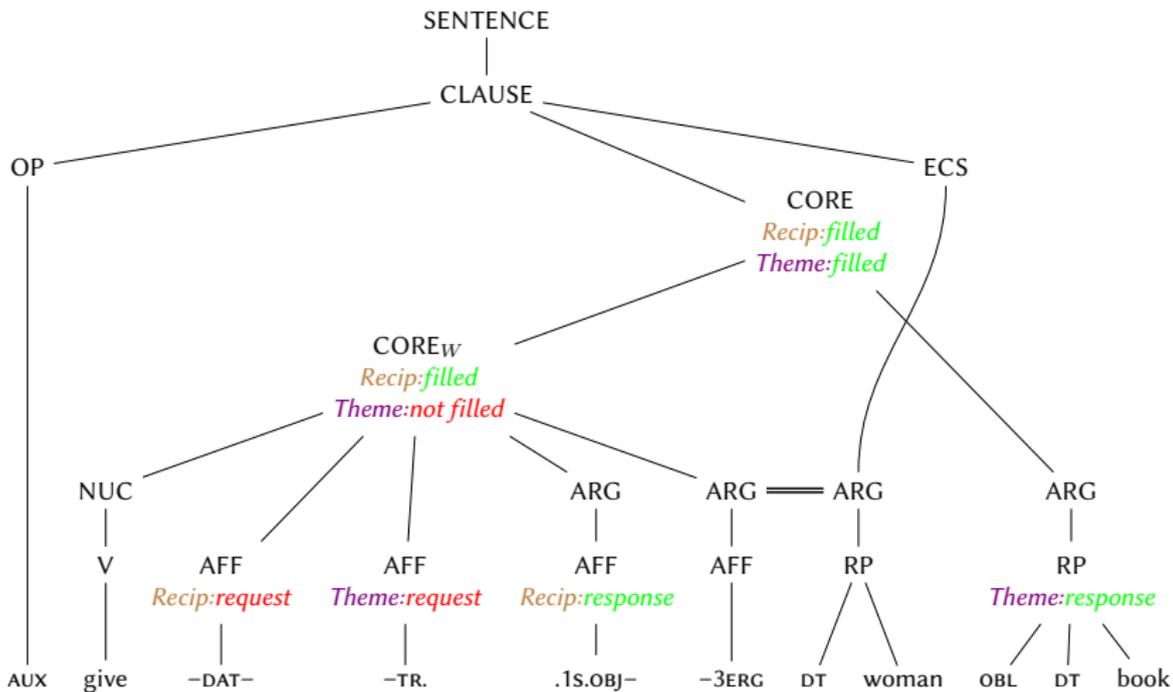
General notation



all morphemes are labelled with **constituent** and/or **feature** tags

a double line indicates reference to the same entity

Request-Response features

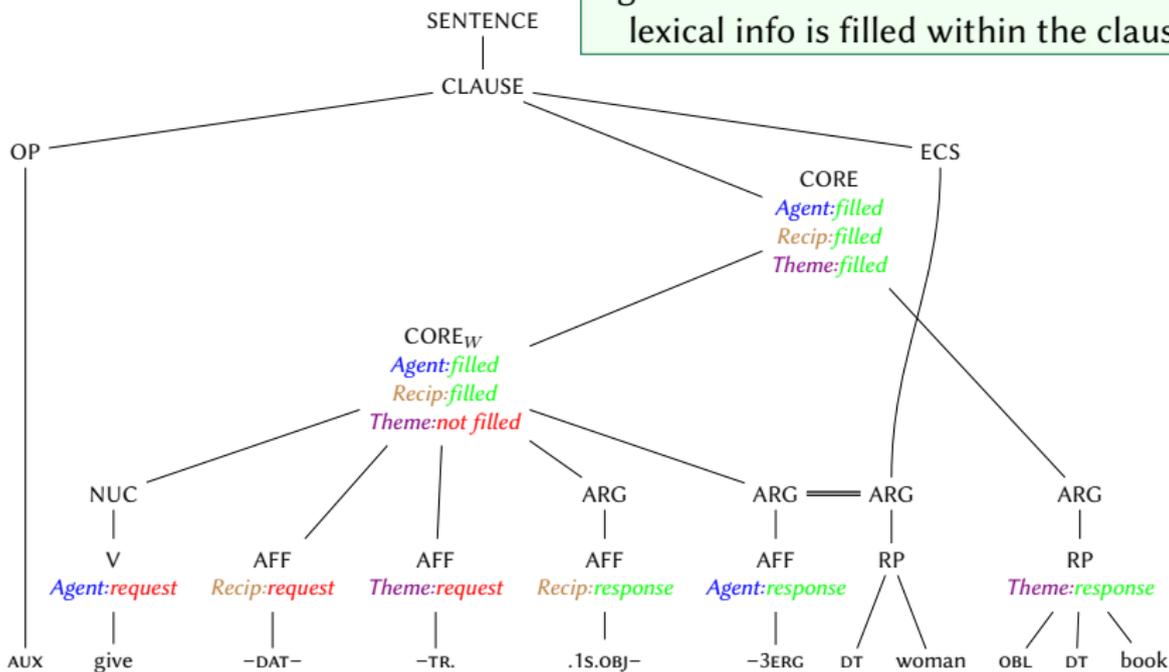


Request-Response features: some notes

- ‘request’ declares a requirement of a feature for the constituent and its ancestors, ‘response’ fills the requirement
- requests are performed by valence-increasing suffixes
- responses are filled by agreement suffixes or RPs
- feature values are propagated upwards
- all features are core internal, i. e. are filled no higher than at the core level

Dealing with Agents

grammar info is filled within the core,
lexical info is filled within the clause



Conclusion

Summary of our suggestions

- Each morpheme is analyzed as a constituent and/or as a feature bearing element.
- Markers of verbal categories (transitivizers, applicatives) are request features requiring arguments.
- Request features can also come from the lexicon together with the verbal stem.
- Agreement suffixes are prioritized over RPs when both are present.
- In the absence of a suffix, the response is communicated by an RP.

Overall evaluation

General advantages of our analysis

- it adequately describes the constructions in question
- it does not contradict Van Valin 2005 and Van Valin 2013
- it uses the formalization by Osswald and Kallmeyer 2018 and thus can be implemented
- it seems to be expandable to other Halkomelem constructions and (hopefully) to other languages

Further questions

- How to treat morphological zero (e.g. unmarked case)?
- Which features can (and should) be stored in the lexicon?
- What is the status of the ECS in the grammar?

Thank you!

Your feedback is very welcome:
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