Towards a cross-linguistic description of morphological causatives: issues in syntax-semantics linking

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What it is and what it is not

It is...

- a formal analysis of several languages
- a suggestion of bringing together theory and technology
- a study of a valence-increasing language device

It is...

- neither a typological study, nor a study of one specific language
- neither a novel theory, nor a ready-to-use implementation
- not a study of lexical or periphrastic causatives

Constructions in question

Narrowing the scope

The present talk deals only with morphological causative constructions derived from transitive verbs

These constructions must include

- a transitive verb with a specific CAUS marker
- the Causer a participant that intends the situation to happen
- the Causee a participant that is caused to act
- the Theme a participant that is influenced by the action

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- (1) ytyk pʻ-oyla-ax pityy ama-gu-d father POSS-child-DAT/ACC book see-CAUS-FIN 'The father showed his son the book.' (Nedyalkov, Otaina, and Kholodovich 1969, p. 192)

Bashkir

- (2) a. Babaj ul-ə-nan xat-tə uqə-t-tər-a old.man son-poss.3-ABL letter-ACC read-CAUS-CAUS-IPFV 'The old man asks his son to read the letter.'

 (Perekhval'skaya 2017, p. 244)
 - b. Babaj ul-ə-na xat-tə uqə-t-tər-a old.man son-poss.3-**DAT** letter-ACC read-CAUS-CAUS-IPFV 'The old man lets his son to read the letter.'

 (Perekhval'skaya 2017, p. 244)

"Similar for the situation in (2a), when the old man discovers the contents of the letter by means of the son (e. g. he comes up with this solution because he has forgotten his glasses). The letter is most probably read aloud in the presence of the old man. In (2b), the son is interested in discovering the contents of the letter. He may read it on his own, in a place or time different from the situation of causation."

(Perekhval'skaya 2017, pp. 244–245)

Halkomelem: Not complete agglutination

- (3) mək^w-ət č ce? t^θə syał pick.up-**TR** 2.sBJ FUT DET firewood 'You will gather firewood.'
 (Gerdts and Hukari 2006, p. 137)
- (4) nem cən məkw-stəxw tθə sXi?Xqəf ?ə tθə qəyeman, nem ?ə tθə kwaXkwa go 1sbj pick.up-caus det child obl det shell aux obl det salt.water cəwmən seashore 'I'm going to get the boy to pick up shells by the seashore.' (Gerdts and Hukari 2006, p. 138)

Halkomelem: Additional semantics

(5) $ne\acute{m} ?af-stəx^w$ $t^\theta = swi\acute{w}l \Rightarrow swi\acute{w}l \Rightarrow swi\acute{w}l \Rightarrow t^\theta = t \Rightarrow x^w a ?c$! go stretch-caus det young.man obl det bow! 'Go show the young man how to pull the bow!' (Gerdts and Hukari 2006, p. 143)

Compare with **Nivkh**:

(6) ytik n'-aχ mos amla-gu-d grandmother 1sg-dat/Acc berry.pudding taste-caus-fin 'The grandmother <u>let</u> me eat the berry pudding.' (Nedyalkov, Otaina, and Kholodovich 1969, p. 192)

General architecture of RRG

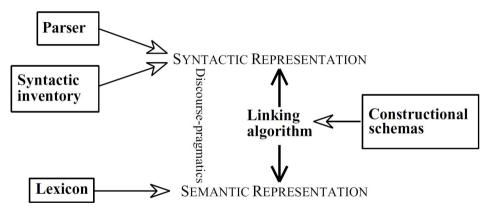
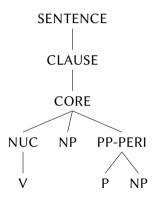


Figure 1: Organization of Role and Reference Grammar (Van Valin 2005, Fig. 5.4)

Syntactic representation



The layered structure of the clause

- SENTENCE the largest unit, can contain several clauses
- CLAUSE what is usually understood as clause
- CORE the predicate with its arguments
- PERI(PHERY) non-argument constituents (e.g. PPs, adverbials etc.)
- NUC(LEUS) the predicate

Semantic representation

frame / feature structure description in attribute-value logic causation □ · EFFECT : ingr-of-state ∧ □ · EFFECT RESULT : smashed-state ∧ CAUSE EFFECT ○ · EFFECT RESULT PATIENT □ ingr-of-state activity **EFFECTOR** RESULT causation smashed-state activity PATIENT CAUSE EFFECTOR 1 ingr-of-state $\exists e' \exists e'' \exists s (causation(0) \land CAUSE(0, e') \land EFFECT(0, e'') \land$ smashed-state EFFECT $activity(e') \land EFFECTOR(e', \mathbb{I}) \land ingr-of-state(e'') \land$ RESULT $RESULT(e'',s) \land smashed\text{-state}(s) \land PATIENT(s, 2))$ attribute-value matrix notation description in predicate logic

Figure 2: Frame representation corresponding to $[\mathbf{do'}(x, \emptyset)]$ CAUSE [INGR smashed'(y)] (Osswald and Kallmeyer 2018, Fig. 15, p. 373)

Macroroles

- a. John gave a book to Mary. (7) Undergoer Actor **NMR**
 - A book was given to Mary by John. Undergoer NMR Actor
- (8)a. John gave Mary a book. Undergoer Actor **NMR**
 - Mary was given a book by John. Undergoer **NMR** Actor

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The universal concept

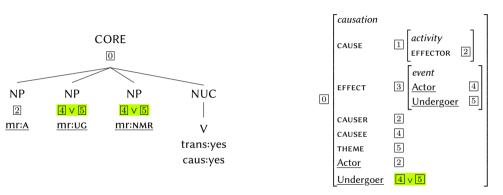


Figure 3: Basic structure for describing constructions in question

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Nivkh: the instantiation of the basic structure

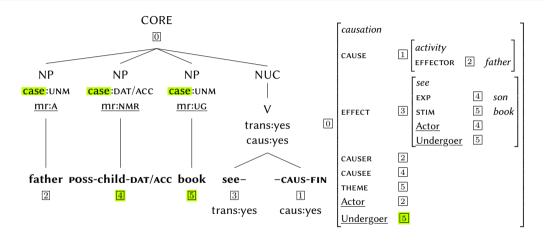


Figure 4: A full analysis of Nivkh (1)

Halkomelem: nuances of causative semantics

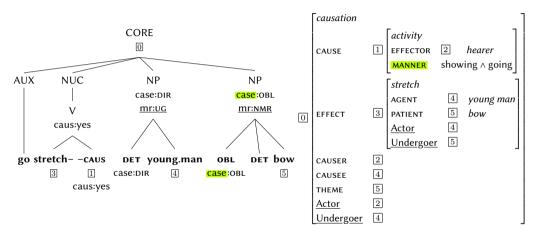


Figure 5: A full analysis of (5) with the feature MANNER in the CAUSE subframe

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Bashkir: accounting for concurring strategies (2b)

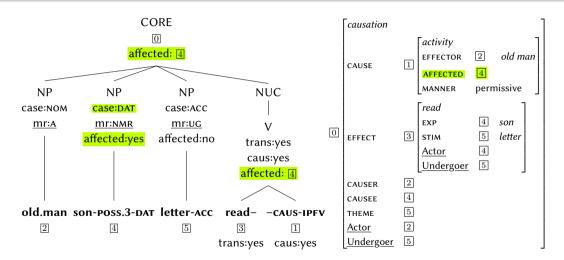


Figure 6: A full analysis of (2b) with extensions in the CAUSE subframe

Halkomelem: more than just 'transitive' I

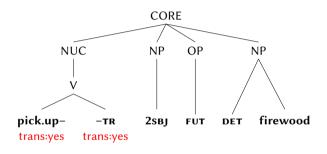


Figure 7: A possible syntactic analysis of (3)

Halkomelem: more than just 'transitive' II

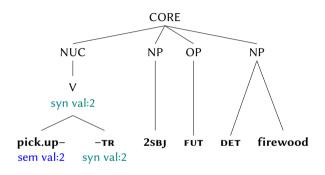


Figure 8: The suggested syntactic analysis of (3)

Halkomelem: more than just 'transitive' III

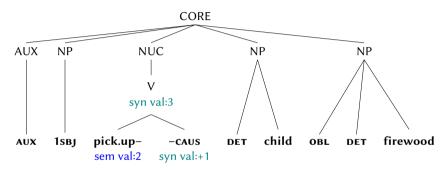


Figure 9: The suggested syntactic analysis of (4)

Conclusions

- The constructions in question are syntactically and semantically analyzed in a similar way independently on the language.
- Linguistic phenomena of various kind are accounted for.
- Features determining each particular construction are introduced for any language level.
- Models of specific constructions in individual languages inherit features from the universal model.
- The presented prototype is compatible with the theory, adequate to the data and extendable.

- implement the suggested formal analysis with XMG;
- test the suggested approach on a larger sample of languages;
- create a formal model of not only causative but also other valence-increasing constructions.

Thank you!

Your feedback is very welcome: generalo@hhu.de ESSLLI Virtual project: https://osf.io/dn2j8/





References

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Glossary

future first person **FUT** second person imperfective **IPFV** third person non-macrorole participant NMR nominative actor Α NOM ablative oblique ABL OBL accusative possessive ACC POSS auxiliary subject AUX SBJ causative singular **CAUS** SG transitive dative DAT TR determiner undergoer DET UG unmarked direct UNM DIR finite FIN