HEAD-raising analysis of relative clauses in Russian Sign Language

This research aims at proposing a unified underlying structure for the headed relatives in Russian Sign Language (RSL) within HEAD-raising analysis [1]. A relative clause (RC) is a dependent clause connected to the matrix clause by a syntactically and semantically shared pivotal element [2]. RSL exhibits typologically unusual variability in terms of position of pivot element (further referred to as head of RC) and position of relative elements.

Relative clauses in RSL: Production task involving six native RSL signers revealed that three different positions of the head of RC are possible in RSL: head can be external to RC (EHRC) (1), inside RC (IHRC) (2) or in both positions (DHRC) (3). Second, two different relative signs are employed. RC can be introduced by pointing index sign IX coreferential with the head of RC (2). IX frequently occurs in the RC-initial position but can also be found in RC-final position (1) and in both positions at the same time (2). Another relative element is invariant sign KOTORYJ, which is accompanied by silent articulation of Russian relative pronoun *kotoryj* "which". KOTORYJ occurs in the RC-initial position (1) and RC-final position (4). Different relative signs can co-occur in both positions as in (1). RC without overt relative elements are also attested.

(1) BOY [**KOTORYJ** WASH DOG **IX**]$_{RC}$ BEAUTIFUL
'The boy who is washing a dog is beautiful.'

(2) DOG MORE BEAUTIFUL [**IX** BOY HUG **IX**]$_{RC}$
'The dog that boy hugs is sitting.'

(3) IX$_1$ MORE LIKE CAR [**KOTORYJ** CAR TURN.LEFT]$_{RC}$
'I prefer the car that is turning left.'

(4) [FIRST GIRL CAT PET **KOTORYJ+IX**[1]]$_{RC}$ SIT CL:SIT
'The first girl that pets a cat is sitting.

HEAD-raising approach: The present study attempts to unify the observed variety of relativization strategies in RSL under one asymmetric underlying structure. Although none of the described relativization strategies is unique to RSL, such a variability is typologically unusual. Underlying structure for RCs in RSL thus should account for the whole range of possible variants. In order to propose such structure, HEAD-raising analysis was employed [2]. Under this approach in EHRC head moves out of DP and internally merges with a relative CP. The external determiner (D_e) is externally merged and thus never occurs inside RC. The internal determiner (D_i) that was base-generated adjacent to the head remains in the Spec,CP. The derivation for EHRC under HEAD-raising analysis is schematized in (5). IHRC would represent the underlying structure of EHRC with no movement involved (however, see below for alternative derivation), while in DHRC head is spelled-out in raised and in base-generated positions.

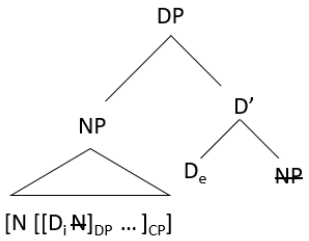
(5) [D_e [N [[D_i ~~N~~]$_{DP}$ [. . .~~DP~~. . .] $_{TP}$]$_{CP}$]$_{NP}$]$_{DP}$

[1] KOTORYJ is frequently followed by IX. In this case two signs form a coherent prosodic unit because (i) lexical mouthing *kotoryj* spreads over IX, (ii) two signs appear in the fixed order and (iii) there is no pause between two signs. Thus in this research, I consider prosodically coherent sequence of KOTORYJ and IX as one relative element.

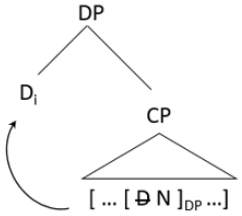
HEAD-raising analysis was successfully applied to different types of RCs in spoken languages and to IHRC in Italian Sign Language (LIS) [1],[2]. However, previous research is limited to RCs with only one relative element. The present research thus represents the first attempt to account for RC with two relative elements in RC-initial and RC-final positions.

Analysis: Following [3] I assume RC-final relative elements in RSL to be derived by the movement of relative CP to the specifier position of D_eP. In EHRC with relative elements in both positions as in (1) RC-initial relative element corresponds to D_i while RC-final element corresponds to D_e. The proposed derivation is illustrated in (6). Following [1] I propose that IHRCs are derived by internal merge of D_i and relative CP as in (7a). Under this approach D_e would be excessive in IHRC because DP label is already provided by D_i. It is further hypothesized that in IHRC with final relative element relative CP moves not to Spec,D_eP as in EHRC but to Spec,D_iP. Derivation for IHRC with two relative elements is given in (7b).

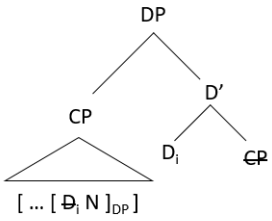
(6)



(7) a.



b.



Distribution of relative signs in RSL confirms the suggested analysis. As expected, IHRC in RSL never have two elements in both positions. Final KOTORYJ is found in IHRC but not in EHRC. It is thus claimed that KOTORYJ always functions as D_i. Relative sign IX, however, can head both internal and external DP as this element is possible in both positions in EHRC and IHRC.

References: [1] Donati, C., & Cecchetto, C. (2011). Relabeling heads: A unified account for relativization structures. Linguistic Inquiry, 42(4), 519–560. [2] Branchini, C. (2014). On relativization and clefting: An analysis of Italian Sign Language. Boston: De Gruyter Mouton ; Ishara Press. [3] Hauser, C. (2016). Relative Clauses in LSF: Typology and Analysis. Université Paris Diderot (LLF), Institut Jean Nicod (ENS-CNRS-EHESS), France