

The architecture of relative clauses: evidence from reflexives

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Background: It is generally assumed that the syntactic structure of participial relative clauses (participial RCs) is impoverished, “reduced” in comparison to that of regular RCs (Burzio 1981, Chomsky 1981, Hazout 2001, Siloni 1995, Stowell 1981, a. o.). Participial RCs are often analyzed as VP-like structures (for some, embedded under a nominalizing node, Doron & Reintges 2005, Hazout 2001, Siloni 1995, a. o., but see Kayne 1994 who argues that participial clauses have a C, but crucially not a T). The participial RCs typically (i) don’t license usual CP-material (*wh*-phrases, complementizers); (ii) don’t have an independent temporal reference; (iii) don’t have subjects.

Data: I review the data of Meadow Mari (Uralic). Meadow Mari employs three participles: active participle derived with the suffix *-še*; participle derived with *-me*; and future participle derived with *-šaš*. The participle *-še* conforms to the properties sketched above and can be classified as a phrasal participial RC (Doron & Reintges 2005). However, both the participle *-me* and the participle *-šaš* can have subjects in Nom and thus can project a Spec,VP and potentially a T layer.

Puzzles: Meadow Mari employs two nominal reflexive strategies: a well-behaved complex reflexive *škenžəm ške* and a (semi-)reflexive *škenže*. *Škenže* displays some anaphor-like properties (it is subject-oriented and must be bound within the first finite clause, cf. (1)), but also behaves in some respects as a pronominal: it allows split antecedents (2).

(1) [Jəvan_i šken-ž-əm_{i/*m} jörat-a,_i] Maša_m šona.
Ivan self-P.3SG-ACC like-PRS.3SG Masha think-PRS.3SG
*Masha thinks that Ivan likes himself/ *her.*

(2) Pet’a_i Jəvan-lan_j (kartəč’k-əšte) šken-əšt-əm_{i+j} onč’-əkt-en.
Peter Ivan-DAT photo-INESS self-P.3PL-ACC see-TR-PRT
Peter showed Ivan them(selves) (on a photo).

Škenže can be long-distance bound as an argument of an embedded infinitival clause, but crucially not as an argument of a participial RC. However, its binding properties change drastically if *škenže* is an argument of a dative experiencer predicate of the *appeal to*-type in an embedded RC: in that case, unlike with agent-theme verbs, *škenže* can be long-distance bound across a finite clause boundary (3).

(3) Pet’a_i imn’e-m_k [kudo ška-lan-že_{i/*j/*k} kelš-en] Van’a-lan_j pölekl-en.
Petja horse-ACC which self-DAT-P.3SG appeal-PRT Vanja-DAT give.as.a.present-PRT
Petja gave to Vanja as a present a horse, which pleased him.

Škenže has the structure of a possessive NP: it consists of a nominal stem *šken-* and a possessive suffix, a bound morpheme agreeing in number and person with the antecedent; note the similarity between (4) and (5). Possessive suffixes in Meadow Mari behave as possessive pronominals (5).

(4) Kažne_i šken-ž-əm_i jörat-a.
everyone self-P.3SG-ACC love-PRS.3SG *Everyone loves himself.*

(5) Kažne_i joč’a-ž_{i/k}-əm jörat-a.
everyone child-P.3SG-ACC love-PRS.3SG *Everyone loves his child.*

Analysis: I argue that *škenže* behaves as English *himself* in an exempt position (namely, in a position in which a SELF-element cannot reflexivize the verb by moving onto it due to independent syntactic constraints, for instance, coordinate structures or picture NPs, cf. *Alice_i told the Rabbit_j that the queen invited no one but themselves_{i+j} for a drink*, see Reuland 2011). The possessive marker *-že* is a bound morpheme that attaches to *šken-*. Thus, the *ške* part cannot move onto or syntactically compose with the verb since that would require excorporation (from *-n-* and *-že*), which is forbidden (Baker 1988).

In exempt positions a SELF-reflexive behaves depending on the properties of its other part: e.g. if it is a pronoun like in English *himself*, the reflexive behaves as a pronoun. Hence, the interpretation of *škenže* should depend on its possessive affix, which is pronominal. This explains why *škenže* allows split antecedents, however, it also predicts that *škenže* should be able to take discourse antecedents as English *himself* in exempt positions does. Yet, Meadow Mari *škenže* must be bound within the first finite clause and is subject oriented. These facts suggest there is a syntactic cap of some sort.

A link between *šken* and some functional category in the left periphery of the clause stems from its bleached semantics, namely the inability of *škenže* to project a full PossP, cf. (6). Hence, although *šken* categorically behaves as a noun in a PossP, it lacks the interpretation of an independent argument.

(6) *Jəvan Maša-n (poro) šken-ž-əm jörat-a.

Ivan Masha-GEN kind self-P.3SG-ACC love-PRS.3SG Int.: Ivan loves Masha's (kind) self. *Šken* defines a proxy-relation, and thus a restriction on the domain. This is in fact what elements like *zelf* in Dutch may do in their non-reflexivizing use, as in *Jan was ontsteld dat Marie hem zelf had aangeklaagd* 'John was upset that Mary had sued him himself'. This is quite compatible with the bleached semantics of *šken*. The Meadow Mari *ške* can be used in a similar way as the Dutch *zelf* introducing the set of alternative uses for the name Kuzhener (a certain area, a municipal district, a town) and specifying that it is originally the name of the town.

(7) {LC: What is beautiful about this place is that if you cross the ravine, there is a big forest...} Kužener-že ške-že poselok jöršən saj ogəl.

Kuzhener-P.3SG self-P.3SG town at.all good neg.prs.3sg

Kuzhener, the town itself, is not nice at all.

If such a role of *šken* in Mari is grammaticalized, it can be encoded in the C-domain (Bianchi 2001; Delfitto and Fiorin 2011). Given this, it is quite plausible that the contextual restriction on the domain of the proxy-relation introduced by *šken* is in fact encoded in the left periphery. I follow Delfitto & Fiorin and assume that the relevant projection is some Force head F. Thus, when *škenže* is singular, its domain is determined by F, which in turn shares features with T (Chomsky 2008), hence the subject orientation. In case we have the plural form *škenəštəm*, we only have to assume that F restricts its domain to pluralities that are sufficiently salient, in particular those that F bears a relation to, namely pluralities containing the (denotation of the) local subject.

Discussion: The crucial role of the left periphery in establishing anaphoric dependencies is further supported by two arguments. Firstly, the contrast between the participial and the infinitival embedded clauses. While it is generally assumed that infinitival clauses have a C layer, Doron & Reintges (2005) argue against the proposal of Kayne (1994) that participial RCs have a C as well. Secondly, the proposed approach allows to account for the unusual behavior of *škenže* as an argument of dative experiencer predicates in RCs. The psych predicates of the *appeal to*-type have an unaccusative derivation, assigning inherent case to the experiencer argument VP-internally. The experiencer projects into a higher VP-internal position than the theme, but the latter can undergo a subsequent NP-movement (Belletti & Rizzi 1988, Pesetsky 1995). I assume that in modifying finite RCs, the theme does not move into the T-domain, whereas in complement and root clauses it does. This idea is based on the hypothesis that the left periphery in RCs is 'weaker' than in complement clauses (for arguments and discussion see Khomitsevich 2007, Boef 2013), hence T is weaker, thus, there is no movement due to EPP feature in the former, whereas in the latter there is. Thus, in RCs with a dative experiencer predicate in Meadow Mari, the local Spec,TP position is not filled, no link between *šken* and the local Spec,TP is formed, and *škenže* becomes exempt from the syntactic constraints set by *šken*. It follows that *škenže* could be bound by an antecedent even further away than in (3). This prediction is borne out: in (7) *škenže* is bound by the matrix subject *Pötr* across two finite clause boundaries. The relation to a higher subject is established by variable binding in logical syntax.

(7) [Ava-žei Jəvan-əm_j üdə_{r_k} de-ne pal-əm-əm əšt-en
mother-P.3SG Ivan-ACC girl near-INESS know-NZR-ACC do-PRT
[kudo ška-lan-že_{p/i/?j} kelš-en] manən] Pötr_p ojl-en.
which self-DAT-P.3SG appeal.to-PRT that Pjotr say-PRT

Peter said that the mother introduced Ivan to the girl that appealed to her/him.

Conclusion: I argue on the basis of Meadow Mari data that long-distance anaphoric binding is mediated by the left periphery. The fact that participial RCs are non-transparent for anaphoric binding unlike infinitival clauses indicates that participials have an impoverished left periphery, most importantly missing a C layer (contra Kayne 1994). I further argue that finite RCs have a weaker left periphery than complement clauses (in line with Boef 2013).

Selected references: Baker, M. 1988 *Incorporation*. Bianchi, V. 2001 On finiteness as logophoric anchoring. In *Tense and Point of View*. Boef, E. 2013 Doubly filled Comp: a view from East-Flanders. In *Morphologie, syntaxe et sémantique des subordinants*. Burzio, L. 1981 Intransitive Verbs and Italian Auxiliaries. PhD Diss, MIT. Delfitto, D. & G. Fiorin. 2011 Person Features and Pronominal Anaphora. *LI* 42(2). Doron, E. and Reintges, C. 2005 On the syntax of participial modifiers. Ms. Hazout, I. 2001 Predicate Formation: The Case of Participial Relatives. *TLR* 18. Kayne, R. 1994 *The Antisymmetry of Syntax*. Khomitsevich, O. 2007. *Dependencies across Phases*.

Reuland, E. 2011 *Anaphora and language design*. **Siloni, T.** 1995 On Participial Relatives and Complementizer D⁰. *NLLT 13*. **Stowell, T.** 1981 *Origins of Phrase Structure*. PhD Diss, MIT.

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