

Multiple Embeddings in Logophoric Contexts: pro drop meets logophoricity

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1. Background. South Saami (Finno-Ugric, central Sweden and Norway, approx. 700 native speakers) is a Consistent Null Subject Language (CNSL) (in the sense of e.g. Holmberg 2010). As shown in (1), the third person null subject in the adjunct clause expresses topic continuity, whereas the overt subject pronoun *dihte* signals topic shift (Frascarelli 2007, Grimshaw and Samek-Ludovici 1996):

- (1) Læjsa_i Maarjam_j diervesji gosse pro_i/dihte_j gaatan rastah veedtsi.
 L.Nom M.Acc greeted when (s)he3s.Nom street.Gen across walked
 Læjsa greeted Maarja when she_{i/j} walked across the street.'

The language also accommodates a series of logophoric pronouns, which occurs in the complement CP of a verb of saying etc., (2), and it refers back to the agent of the attitudinal predicate (e.g. Adesola 2005). Notice that *dihte* in (2) refers deictically. A null subject may also occur in the complement clause, (2b), where it can refer to either *Læjsa* or *Maarja*.

- (2) a Læjsa_i jeehti [satne_{i/*j}/dihte_{*i/j} orre bijlem åasteme].
 L.Nom said Log.3s/(s)he.3s new car.Acc bought
 'Lisa said that she has bought a new car.'
 b Ij Læjsa_i maam-akt jeahteme,
 Neg L.Nom what.Acc-one say.Ptc
 bene Maarja_j jeehti [pro_{i/j}/satne_{*i/j} edtja orre bijlem åestedh].
 but M.Nom said pro/Log.3s will new car.Acc buy
 'Lisa_i hasn't said anything, but Maarja_j said that she_{i/j} will buy a new car.'

2. The Problem. In clauses that are multiply embedded under logophoric verbs, regardless of whether the subject is expressed by the logophoric pronoun *satne* or small pro, it may refer to either the intermediate subject, or the highest subject (see Baker 2008):

- (3) Maarja_i veanhta Læjsa_j jeehti pro_{i/j}/satne_{i/j} orre bijlem åasteme.
 M.Nom thinks L.Nom said pro/Log.3s new car.Acc bought
 a. 'Maarja_i thinks that Laara_j said that she_i has bought a new car.'
 b. 'Maarja_i thinks that Laara_j said that he_j has bought a new car.'

When the most deeply embedded clause contains two logophoric pronouns, the well-known interleaving effect arises, such that the subject pronoun may refer to either *Laara* or *Læjsa*, and the remaining logophoric pronoun refers to whichever antecedent is available (e.g. Safir 2004). Hence, (4) is ambiguous, as shown in the translations (4a) and (4b).

- (4) Laara veanhta Bræjhta jeehti satne satnem lyjhkoe.
 L.Nom thinks B.Nom said Log.Nom Log.Acc likes
 a. Laara_i thinks that Bræjhta_j said that she_j likes him_i.'
 b. Laara_i thinks that Bræjhta_j said that he_i likes her_j.'

However, if the most deeply embedded clause has a null subject, the reading corresponding to (4b) is not available:

- (5) Laara veanhta Bræjhta jeehti pro satnem lyjhkoe.
 L.Nom thinks B.Nom said pro Log.Acc likes
 a. Laara_i thinks that Bræjhta_j said that she_j likes him_i.'
 b. *Laara_i thinks that Bræjhta_j said that he_i likes her_j.'

3. The Solution. I claim that the contrast between (4) and (5) is the result of a clash in the licensing of pro and the logophoric pronoun. There is a consensus in the syntactic literature that logophoric pronouns are licensed by a logophoric operator, LOG (for instance, Adesola 2005, Baker 2008, Koopman and Sportiche 1989), and that a Romance-style third person null subject is licensed by a topic operator, TOP (for instance, Frascarelli 2007, Holmberg 2010, Sigurdsson 2011). Thus, both involve a relation between an operator in the C-domain, and a pronominal element contained in the T-domain. However, the two differ in the way the operator relates to its antecedent. The logophoric operator is controlled by the subject of the verb that selects the CP that hosts LOG, a local syntactic relation. On the other hand, TOP is discourse-grammatically coconstructed with a topic. Consequently, there is a higher degree of freedom as to what can antecede TOP, in comparison to LOG, as witnessed in (2b) above. A third

difference is concerned with the relation between the operator and the pronoun. Holmberg (2010) argues that a third person null subject agrees with T in-situ. Moreover, T in CNSLs is equipped with a referential feature, uD , which must be valued by a DP. However, *pro* is a ϕ P (see Holmberg 2010), and thus it cannot value uD on T. However, TOP in (6) is coindexed with *pro* and T, with the result that the operator can satisfy the epp-property. In contrast, the relation between a logophoric pronoun and LOG is unbounded, and the logophoric pronoun can be shown to raise into Spec,TP along the lines of (7).

(6) ... [CP TOP_i [TP T_i [vP *pro*_i ...]]]

(7) ... [CP LOG_i [TP *LogPron*_i T_i [vP *t*_{LogPron} ...]]]

Returning to (5), in the unproblematic case (5a), the logophoric pronoun *satnem* is bound by the highest operator, as shown in (8). This is unproblematic because the distance between OP_i and S.Acc_i in (8) is unbounded. Furthermore, LOG_i is controlled by the subject of *think*. In the fashion outlined, *pro*_j has agreed with T_j, and TOP_j values T's referential feature.

(8) Laara_i thinks [CP LOG_i Bræjhta_j said [CP TOP_j [TP T_j [vP *pro*_j likes S.Acc_i]]]]

The problem with (5b) lies in the fact that the logophoric pronoun is bound by the intermediate operator, LOG_j in (9). T and *pro* on the other hand, are coindexed with the highest operator TOP_i.

(9) Laara_i thinks [CP TOP_i Bræjhta_j said [CP LOG_j [TP T_i [vP *pro*_i likes S.Acc_j]]]]

Since TOP_j does not match the features of *pro*_i and T_i, uD on T cannot be properly valued, and hence the interleaving effect is suspended.

One important detail of this account is that the contrast between (5a) and (5b) cannot be treated as a case of *de re* blocking (see Deal 2018). Firstly, as noted by Patel-Grosz (2015), null pronouns resist *de re* reading. This is also the case in South Saami, where the normally obviative pronoun *dihte*, as in (2a), can refer the subject *de re*, under the right circumstances. However, neither the logophoric nor the null pronoun have this capacity. Hence all bound *de se* elements in (5a) and (5b) alike are *de re* free in the sense of Deal (2018) and Patel-Grosz (2015).

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