Pronoun Binding and *Reflexivity* in Kildin Saami

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Abstract

The article investigates the interpretation of two types of pronouns in Kildin Saami (Uralic, Northwestern Russia). We show that the interpretation of the pronouns *sōn* and *iž'es'* as coreferential (*strict*) or bound (*sloppy*) under VP-ellipsis and in the scope of *only*-DPs shows some unexpected patterns when compared to English or German. The observable facts are derived from the interaction of two independent factors. The lexical specification of *sōn* and *iž'es'* as syntactically free or bound in their local binding domain, and an interpretive principle SYN-SEM-BIND, which forces (locally) syntactically bound pronouns to be interpreted as semantically bound. While the new principle accounts for all the observable facts, we also show that standard interpretive principles introduced for the analysis of pronouns in English do not.

1   Introduction

We discuss the interpretation of two kinds of pronouns in Kildin Saami (henceforth: KS), a highly endangered Uralic language spoken in the Northwest of Russia. In particular, we concentrate on the availability of so-called *strict* and *sloppy readings* with reflexive and non-reflexive possessive pronouns under VP-ellipsis, on the one hand, and in focus constructions with the exclusive particle 'only', on the other. On the empirical side, we show that KS has two series of (possessive) pronouns, which exhibit some unexpected patterns when compared to pronouns in English, German, and Russian. We propose an analysis of KS pronouns that is based on the following assumptions: (i.) personal and possessive pronouns in KS are lexically specified as either *syntactically bound* (= reflexive) or *free* in their binding domain, which – unlike in English – is constituted by their immediate clause; (ii.) an interface rule on the interpretation of pronouns, which we call SYN-SEM-BIND. SYN-SEM-BIND forces pronouns that are syntactically bound in their local binding domain to be interpreted as bound variables, *unless semantic binding changes the interpretation as compared to the coreferential construal*. The latter constraint on semantic identity is familiar from Reinhart's (1983) *coreference rule* and Büring's (2005) *Have Local Binding!*, but the interaction of the conditions in (i) and (ii) gives rise to slightly different predictions, which we show to be borne out by the KS facts.

The structure of the article is as follows. Section 2 introduces the phenomenon of strict and sloppy interpretations with English possessive pronouns (in simple cases), as well as a standard analysis based on Reinhart (1983) and Heim & Kratzer (1998). Section 3 provides background information on KS and its pronominal system, and it also introduces the core data concerning the interpretation of KS pronouns as coreferential or bound under VP-ellipsis and in the c-command domain of *only*-DPs. Section 4 puts forward our analysis of pronoun interpretation in KS, and it also offers arguments against an alternative analysis in term of Büring's (2005) interpretive principle *Have Local Binding!*. Section 5 sums up the differences in pronoun interpretation between KS and English and discusses a possible reason for the syntactic reflexivity of one type of pronouns in KS. Section 6 concludes.

2 The Strict-Sloppy Ambiguity in English

English possessive pronouns are ambiguous between a *sloppy reading* and *strict reading* under VP-ellipsis and in the c-command domain of *only*-DPs, or *only*-focus constructions (henceforth: OFC); cf. Reinhart (1983), Pollard & Sag (1992), Reinhart & Reuland (1993), Heim & Kratzer (1998), Kiparsky (2002), Büring (2005), Roelofsen (2008). On the sloppy reading, the referent of the possessive pronoun co-varies with that of its respective antecedents, whereas on the strict reading it stays fixed either to an antecedent in the preceding linguistic context (STRICT I), or to a contextually salient 3rd party (= *c*) (STRICT II). The different readings for VP-ellipsis and OFCs are illustrated in (1) and (2), respectively.

(1)   Michael butchers **his** reindeer, and John does, too.
     i.   '**M** butchers **M's** reindeer and **J** butchers **J's** reindeer.'   (SLOPPY)
     ii.   '**M** butchers **M' s** reindeer and J butchers **M's** reindeer.'   (STRICT I)
     iii.   'M butchers **c's** reindeer and J butchers **c's** reindeer.'   (STRICT II)

(2)   Only Michael butcher **his** reindeer.
     i.   '**Nobody but** Michael butchers **his own** reindeer.'   (SLOPPY)
     ii.   'Nobody but **Michael** butchers **Michael's** reindeer.'   (STRICT I)
     iii.   'Nobody but Michael butchers **c's** reindeer.   (STRICT II)

Reinhart (1983) and Heim & Kratzer (1998) derive the strict-sloppy ambiguities in (1) and (2) from the interpretation of the possessive pronoun as either *semantically free* or *semantically bound*. The strict readings arise when the pronoun is semantically free and thus interpreted by means of an assignment function *g*. This function maps the pronoun's index *n* to a contextually salient individual, which may or may not be identical to the referent of a clause-mate DP. For the sloppy readings to arise, the pronoun has to be semantically bound by (the binder index of) a c-commanding DP-antecedent, which has raised at LF. Assuming VP-resolution under semantic identity (plus focus match, Rooth 1992, Roelofsen 2008), the resulting semantic representations are shown for the strict readings of (1) and (2) in (3a) and (4a), and for the sloppy readings in (3b) and (4b), respectively:[1]

(3)   *VP-ellipsis:*
     a. M_1 [butchers **his**$_{1/3}$ reindeer], and J_7 [butchers **his**$_{1/3}$ reindeer]. (STRICT I & II)
         $\Rightarrow$ [λx. x butchers **g(1/3)**'s reindeer](m) ∧ [λx. x butchers **g(1/3)**'s reindeer](j)
     b. M_1 [**2** t_2 butchers **his**$_2$ reindeer], and J_7 [**2** t_2 butchers **his**$_2$ reindeer]. (SLOPPY)
         $\Rightarrow$ [λx. x butchers x's reindeer](m) ∧ [**λx. x** butchers **x's** reindeer](j)

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1   In what follows, we index R-expressions merely for the sake of exposition; see, Büring (2005) for discussion.

(4)   *OFCs:*
     a.   Only Michael$_1$ butchers **his$_{1/3}$** reindeer.   (STRICT I & II)
          ⇒ ∀z ∈ ALT(michael): [λ**x**. **x** butchers **g(1/3)**'s reindeer](z) → z = michael
     b.   Only Michael 2 [t$_2$ butchers **his$_2$** reindeer].   (SLOPPY)
          ⇒ ∀z ∈ ALT(michael): [λ**x**. **x** butchers **x**'s reindeer](z) → z = michael]

3   The interpretation of pronouns in Kildin Saami

This section gives some background information on KS. We also introduce the two pronoun series (3.1) and introduce the basic facts concerning their interpretation as bound (sloppy) or coreferential (strict) under VP-ellipsis and in OFCs (3.2). KS is a highly endangered East Saami (< Saami < Uralic) language spoken on the Kola Peninsula in Northwestern Russia by approx. 300 speakers (cf. Rießler & Wilbur 2007, the only existing descriptive grammar of KS including only little syntax is Kert 1971). KS is an inflectional language with almost exclusive suffigation. Nominal expressions inflect for case and number (9 cases and two numbers); verbs inflect for person, number, tense and mood. The predominant word orders in KS are SVO (5), and SOV, and it has no definite articles but DP-initial demonstratives (6).

(5)   Munn   sarna   saam'   kil   vanas
               1SG.NOM   speak   saami   language.ACC little
               'I speak the Saami language a little.'

(6)   [$_{DP}$ tadt   [$_{NP}$ šurr   pērrht]]
                  DEM.PROX   big   house
               'this big house.'

The data presented were directly elicited by the second author with 9 speakers in Lovozero on various occasions between September 2008 – August 2009.

3.1   Two pronominal series in Kildin Saami

KS has two series of pronominal expressions, which can be informally characterised as the *reflexive series* and the *free series*. Both pronominal series *can* inflect for person and number (phi-features). KS has no true possessive pronouns, but the GEN forms of reflexive and free pronouns are used to mark pronominal possession (Kert 1971). The reflexive form *iž'es'* 'REF:3SG.GEN/ACC (< idž' REFL:3SG)' is illustrated in (7ab), where *iž'es'* functions as a pronominal argument of the verb and a possessor argument inside DP, respectively. The data in (8) show that the reflexive root *iž'- c*an have not only 3rd person antecedents, but also 1st and 2nd person antecedents under person and number agreement (with SG antecedents).

(7)   a.   Mehkal$_1$ **iž'es'$_{1/*2}$**   ressuvajj
            Mehkal   REF:3SG.ACC   draws
            'Mehkal draws himself.'
    b.   Mehkal$_1$ [**iž'es'$_{1/*2}$**   pudze]   axxt   (≠ English)
            Mehkal   REF:3SG.GEN   reindeer   butchers
            'Mehkal butchers his own reindeer.'

(8) a. Munn₁   **iž'an₁/*₃**   ressuvaja
         1SG.NOM   REF:3SG.ACC   draw
         'I draw myself.'

     b. Munn₁ [**iž'an₁/*₃**   pudze]   axxte   (≠ English)
         1SG.NOM   REF:3SG.GEN   reindeer butcher
         'I butcher my own reindeer.'

In (7b, 8b), the licensing domain for the possessive reflexives seems to be the entire clause. This observation play an important role in the analysis in section 4.

The free pronominal form *sōn* '3SG.GEN/ACC (< *sōnn* 3SG)' is illustrated in (9ab) in its function as a pronominal argument and possessive pronoun, respectively:

(9) a. Mehkal₁   **sōn*₁/₃**   ressuvajj
         Mehkal   3SG.ACC   draws
         'Mehkal draws him.'

     b. Mehkal₁ [**sōn*₁/₃**   pudze]   axxt   (≠ English)
         Mehkal   3SG.GEN   reindeer butchers
         'Mehkal butchers c's (not Michael's!) reindeer.'

The non-coreference of the subject DP *Mehkal* and *sōn* in (9a) presumably follows from Principle B of the Binding Theory. However, while the reflexive form *iž'es'* in (7b) had to refer back to the clause-mate subject *Mehkal* in (8b), the free form *sōn* in (9b) behaves differently from the English possessive pronouns *his/her* in that it *must not* be coreferent with the clause-mate subject *Mehkal*. Again, this follows directly if the syntactic domain relevant for the application of Principle B in (9b) is not the DP, as it is in English, but the finite clause. This assumption is confirmed by the fact that *sōn* can indeed be coreferent with a DP-antecedent in a higher clause, as illustrated in (10ab).

(10) a. **Mehkal₁** sarrn   [Jovan₂ pall   **sōn₁/*₂**   pudze]
         Mehkal   says   Jovan   slaughters 3SG.GEN reindeer
         'Mehkal says that Jovan slaughters his (= Mehkal's) reindeer.'

     b. **Mehkal₁** sarrn   [**sōn₁/*₂**   pudze   poačke]
         Mehkal   says   3SG.GEN   reindeer run.away
         'Mehkal says that his (= Mehkal's) reindeer ran away.'

Finally, observe that the pronominal system of KS differs in two important respects from the Russian one, which also features two pronominal series and reflexive pronouns (Kiparsky 2002). First, the Russian reflexive pronouns *sebja/ svoj* never show person/number agreement with their DP-antecedents, unlike their Saami counterparts *iž'es'/ iž'an* in (7) and (8). Second, the free form *sōn* in KS is more restricted in its syntactic distribution than its Russian (and English/German) counterparts. Unlike in Russian (11a), where the 1st person form *moju* has to corefer with the 1st person subject antecedent and gives rise to a STRICT I-reading, the 1st person form *mūn* in KS (11b) cannot be coreferent with the 1st person subject, and the sentence is ungrammatical. In order to express the intended reading, the reflexive form *iž'an* is required instead.

(11) a. Ja   lublu moju   ženu.
         1SG:NOM   love 1SG.ACC   wife:ACC
         'I love my wife.'

     b.   Munn   ***mūn** / **iž'an**   āgk'   šoabša

              1SG:NOM   1SG.GEN   REF:3SG.GEN   wife:ACC   love

              'I love my wife.'

3.2   Bound and free interpretations with Kildin Saami pronouns

This section presents the core findings concerning the interpretation of both pronoun types in KS under VP-ellipsis and in OFCs. The two major generalizations are as follows: (i.) The free form *sōn* only allows for STRICT II-readings (3rd party) under short VP-ellipsis and in OFCs, unlike non-reflexive *his/her* in English; (ii.) the reflexive form *iž'es'* , by contrast, does *not* show a uniform semantic behaviour under short VP-ellipsis and in *only*-focus constructions: Under VP-ellipsis, *iž'es'* only allows for a sloppy interpretation, as expected (see Outakoski 2003 for parallel findings in North Saami), but, surprisingly, *iž'es'* allows for a coreferential STRICT I-interpretation in OFCs, next to the sloppy reading.

Looking at VP-ellipsis first, both free and reflexive (possessive) pronouns are interpreted unambiguously under short VP-ellipsis. With the free from *sōn* in the antecedent clause the only available interpretation is a 3rd party-reading (STRICT II) with reference to a contextually salient individual *c* in (12a). With the reflexive form *iž'es'* in the antecedent clause, the only available interpretation is the bound sloppy-reading, cf. (12b):

(12)   a.   Mehkal   **sōn**   pudze   axxt,   Jovan   nydtše.

               Mehkal   3SG.GEN   reindeer   butchers   Jovan   too

               'Mehkal butchers *c*'s reindeer, John does too.'   (only STRICT II)

        b.   Mehkal   **iž'es'**   pudze   axxt,   Jovan   nydtše.

               Mehkal   REF:3SG.GEN   reindeer   butchers   Jovan   too

               'Mehkal butchers *his own* reindeer, John does too.'   (only SLOPPY)

The same patterns are observed when the pronouns occur as pronominal object arguments, cf. (13ab):

(13)   a.   Mehkal   **sōn**   šoabašt,   Jovan   nydtše.

               Mehkal   3SG.ACC   loves   Jovan   too

               'Mehkal loves *c*, John does too.'   (only STRICT II)

        b.   Mehkal   **iž'es'**   šoabašt,   Jovan   nydtše.

               Mehkal   REF:3SG.ACC   loves   Jovan   too

               'Mehkal loves himself, John does too.'   (only SLOPPY)

As mentioned above, (12a) differs from comparable English cases with non-reflexive *his/her* in not allowing for a STRICT I-interpretation with coreference to the antecedent *Mehkal*. The counterpart of (12b) is also not attested in English, which lacks reflexive possessives. Finally, there are no differences between KS and English with respect to pronominal arguments, as in (13). We submit that this is due to the fact that the syntactic binding domain for the pronouns is the same for both languages, namely the clause, and that the STRICT I-reading in KS (13a) and its English counterpart is ruled out by PRINCIPLE B.

Turning to OFCs next, the following picture emerges. First, OFCs with the free form *sōn,* just like the VP-ellipsis case in (12a), only allow for a STRICT II-interpretation, cf. (14).

(14)   Lyse Mehkal **sōn**   pudze   axxt
       only Mehkal 3SG.GEN   reindeer butchers
       'Only Mehkal butchers *c*'s reindeer.'   (only STRICT II)

Something unexpected happens with the reflexive form *iž'es'*, though: In (15), *iž'es'* not only allows for the expected sloppy-reading (15i), but, in addition, it can also give rise to a STRICT I-reading under coreference with the antecedent *Mehkal* (15ii).

(15)   Lyse Mehkal **iž'es'**   pudze   axxt
       only Mehkal REF:3SG.GEN   reindeer butchers
       i. 'Only Mehkal butchers *his own* reindeer'   (SLOPPY)
       ii. 'Only Mehkal butchers *Mehkal's* reindeer.   (STRICT I)

Again, parallel patterns obtain when the pronouns occur as pronominal object arguments:

(16)   a. Lyse Mehkal **sōn**   šoabašt
           only Mehkal 3SG.ACC   loves
           'Mehkal is the only one that loves *that person*.'   (only STRICT II)
       b. Lyse Mehkal **iž'es'**   šoabašt
           only Mehkal REF:3SG.ACC   loves
           i. 'Mehkal is the only one that loves *himself*.'   (SLOPPY)
           ii. 'Mehkal is the only one that loves *Mehkal*.' (STRICT I)

The available interpretations with the two pronoun types under the two structural conditions are summarised with example numbers in (17):

(17)   VP-ellipsis   OFC
       sōn   STRICT II (12a, 13a)   STRICT II (14, 16a)
       iž'es'   SLOPPY (12b, 13b)   SLOPPY (15, 16b) **& STRICT I (15, 16b)**

The analytical challenge is posed by the availability of the STRICT I-reading with the reflexive form *iž'es'* in (15) and (16b), which remains unaccounted for on any analysis that treats *iž'es'* as obligatorily semantically bound. Among others, the analysis presented in section 4 will have to answer the following questions: (i.) Why does the pronoun *iž'es'* behave differently under short VP-ellipsis and *only*-focus, and, in particular, why is the STRICT I-reading for *iž'es'* unavailable under VP-ellipsis?; (ii.) Can the reflexive pronoun *iž'es'* be semantically free in some contexts, and, if so, why?; (iii.) Is reflexivity in KS a syntactic or a semantic phenomenon?; (iv.) Is the pronoun *sōn* semantically free in all contexts, or can it also be semantically bound?

4   Analysis

Our analysis of pronoun interpretation in KS rests on two central assumptions: First, pronouns in KS are lexically specified either *as syntactically free* (*sōn*-series) or *syntactically bound* (*iž'es'*-series) in their local binding domain, which is their immediate clause (see also Outakoski 2003 for North Saami):

(18)   a. *sōn*:   must be syntactically *free* in their immediate clause
       b. *iž'es'*: must be syntactically *bound* in their immediate clause

As mentioned above, the only difference between KS pronouns and their English counterparts consists in the size of the local binding domain of possessive pronouns, both reflexive and free: Possessive pronouns in English must be syntactically free (PRINCIPLE B) inside their embedding DP, whereas in KS they must be bound (PRINCIPLE A) or free (PRINCIPLE B) inside their finite clause, same as their argumental counterparts. Second, we assume the following interface principle on pronoun interpretation to be active in KS:

(19)   SYN-SEM-BIND:
        If a pronoun is syntactically bound (= co-indexed under c-command) in its local binding domain, i.e. its immediate clause, then it must be interpreted as semantically bound *if the resulting interpretation is equivalent to the coreferential construal*.

The principle SYN-SEM-BIND in (19) is reminiscent of a related, but still different principle in Heim & Kratzer (1998: 264), and also of Reinhart's (1983) *coreference rule*. Unlike these alternatives, though, (18) makes no predictions for situations in which a pronoun is not syntactically bound in its local binding domain. This relaxation of the principle plays a crucial role in the analysis of the pronoun *sōn* to come. As *sōn* can never be locally bound, SYN-SEM-BIND will never be applicable in the interpretation of this pronoun. We now turn to the question of how the lexical specifications in (18) and the interpretive principle SYN-SEM-BIND in (19) interact in order to account for the KS data.

4.1   Accounting for the data: SYN-SEM-BIND

First, we derive the obligatory STRICT II-interpretation for the pronoun *sōn* under VP-ellipsis (12a, 13a) and in OFCs (14, 16a) from its lexical specification. Being lexically specified as syntactically free in its clause (= binding domain), *sōn* cannot be co-indexed, and hence not be interpreted as coreferent, with a clause-mate subject antecedent, as this would impose a PRINCIPLE B violation, cf. (20a). The lexical constraint thus effectively rules out both the coreferential STRICT I-reading and the sloppy interpretation. It follows that the only available interpretation for *sōn* in non-embedded clauses is the STRICT II-reading, on which it refers to a 3rd party, cf. (20b) (granting ancillary notions such as Büring's (2005) PACO):

(20)   a.   *[(*only*)-DP$_1$ … son$_1$ …]   *STRICT I, *SLOPPY (principle B)
        b.   [(*only*)-DP$_1$ … son$_3$ …]   STRICT II (3rd party)

Next, we turn to the non-ambiguity of the pronoun *iž'es'* under VP-ellipsis in (12b) and (13b). The absence of the coreferential STRICT I (and STRICT II) interpretation follows since *iž'es'* must be syntactically bound in its finite clause – because of its lexical specification in (18b) – and hence be interpreted as semantically bound – because of SYN-SEM-BIND in (19). This is schematically illustrated in (21):

(21)   [$_{CP}$ NP$_1$ … iž'es'$_1$ …]   ⇒   LF: [$_{CP}$ NP$_1$ λ_1…[… iž'es'$_1$ …]]
                                          SYN-SEM-BIND

Finally, we turn to the problematic case posed by the ambiguity of the pronoun *iž'es'* in OFCs, where it allows both for a STRICT I- and a SLOPPY interpretation (15b, 16). Again, we argue, the observed ambiguity is essentially due to the workings of SYN-SEM-BIND. First, observe that there are two ways of satisfying the lexical requirement that *iž'es'* be syntactically bound. It could be co-indexed directly with the c-commanding *only*-DP, as in (22a), or else it could be co-indexed with a c-commanding binder index, as in (22b):

(22)   a.   [***only*-DP$_1$** … iž'es'$_1$ …] $\Rightarrow$ STRICT I
       b.   [*only*-DP … **λ$_1$** … iž'es'$_1$…] $\Rightarrow$ SLOPPY

Now recall that, according to the definition of SYN-SEM-BIND in (19), the semantic binding construal in (22b) is only enforced over the coreferential construal in (22a) under semantic equivalence. Crucially, though, semantic equivalence is not given in the presence of *only* in (22ab), unlike with VP-ellipsis in (21) above. For illustration, given an individual x, an activity VP and an NP possessum, the two abstract structures in (22ab) are paraphrasable as 'x is the only one that VPs x's NP' (22a) and 'x is the only one that VPs his/her own NP' (22b), which are not true under the same conditions.

Apart from accounting for the core data in (12) to (16), the proposed analysis in terms of SYN-SEM-BIND makes a number of further welcome predictions. First, it accounts for the fact that *sōn* can be co-referent with a DP-antecedent in a higher clause, as already observed in (10ab) above. The abstract configurations in (23ab) show that *sōn* is not syntactically bound in its local binding domain (here: CP2) by the higher antecedent, and hence free to corefer with it without incurring a PRINCIPLE B violation. This is in full parallel to the behaviour of personal pronouns in English which can also be coreferent with DPs in higher clauses.

(23)   a.   [$_{CP1}$ … **DP$_1$** … [$_{CP2}$ … DP $_2$ … **sōn**$_{1/\,*2}$ …]]   no principle B violation
       b.   [$_{CP1}$ … **DP$_1$** … [$_{CP2}$ **sōn**$_{1/\,*2}$ …]]   no principle B violation

Finally, *sōn* can even be semantically bound by a quantified DP if that quantified DP is located in a higher clause, as illustrated in (24):

(24)   Nikie$_1$ sarrn   [$_{CP2}$ (čto)   **sōn$_1$**   puaz   poačke]
          nobody   says   that   3SG.GEN   reindeer   ran.away
          'Nobody$_1$ says that his$_1$ reindeer ran away.'

This observation follows from the fact that *sōn* is not lexically restricted to be *semantically* free. Since *sōn* can be co-indexed with elements outside its local binding domain, cf. (23ab), it can also be co-indexed with, and hence bound by, a binder index, as shown in (25):

(25)   [$_{CP1}$ …**QNP** … **λ$_1$** …[$_{CP2}$ …**sōn**$_1$…]]

To summarise: The proposed analysis accounts for the uniform semantic behaviour of *sōn* as well as for the variable behaviour of *iž'es'* under VP-analysis and in OFCs, respectively. The obligatory STRICT II-reading for *sōn* in both contexts follows from its lexical specification as being syntactically free in its local binding domain, independent of SYN-SEM-BIND. The variable behaviour of *iž'es'* follows from its lexical specification as syntactically bound in its binding domain and from the workings of SYN-SEM-BIND, an interpretive principle that forces (locally) syntactically bound pronouns to be interpreted as semantic variables as long as this does not affect the truth-conditional content.

4.2   An alternative account and why it fails

The above analysis has succeeded in accounting for the data at the cost of introducing (yet) another interface principle on the interpretation of pronouns. In light of this, it might seem attractive to try and analyse the data by recourse to principles that have already been

suggested in the previous literature, such as, for instance, Büring's (2005) *Have Local Binding!*, which – prima facie – looks quite similar to SYN-SEM-BIND. In this section, we briefly sketch such an alternative account and show why it fails.

The alternative analysis would be based on the three central assumptions in (26):

(26)   i.   KS pronouns are lexically specified as semantically (not syntactically!) free
             (*sōn*-series) or unspecified (*iž'es'*-series), respectively.
        ii.   The interpretive principle *Have Local Binding!* (Büring 2005) is active in KS.
        iii. A constraint on syntactic reflexivity in terms of syntactic binding

The lexical specification of the different pronoun types in (26i) as semantically free or unspecified is reminiscent of proposals for English, which take the reflexive pronoun *himself/herself* to be lexically specified as semantically bound (Grodzinsky & Reinhart 1993), whereas the free (possessive) pronouns (*he/she,/his/her*) are unspecified and can be either bound or free. If the analysis were correct, we would thus deal with an interesting case of cross-linguistic variation in the pronominal lexicon. As for the principle *Have Local Binding!* (henceforth: HLB), Büring (2005) defines it as in (27). The crucial difference between HLB and our SYN-SEM-BIND consists in the fact that HLB – despite its name – can apply globally across sentential domains, whereas the application of SYN-SEM-BIND is restricted to the local binding domain of a given pronoun, in our case its immediate clause.

(27)   *Have Local Binding!* (*HLB!)* (Büring 2005:121)
        For any two NPs α and β, if α could bind β (i.e. if it c-commands β and β is not
        bound in α's c-command domain already), α must bind β, *unless that changes the
        interpretation*.

The assumptions in (26i) and (26ii) do indeed account for most of the data observed in (12) to (16). Since *iž'es'* can be either semantically bound or free, it is expected to give rise to STRICT I- and sloppy- readings in OFCs, cf. (15, 16b), identical to the behaviour of possessive pronouns in English. Crucially, HLB does not apply since the structures with and without binding are not semantically equivalent. Under VP-ellipsis, by contrast, the unavailability of the STRICT I-reading for *iž'es'* does follow from the application of HLB. Since the coreferential construal (28a) and the binding construal (28b) of the antecedent clause are semantically equivalent, HLB kicks in and forces the interpretation of the pronoun as a bound variable, hence its obligatory interpretation as sloppy.

(28)   a.   *Mehkal₅   [**iž'es'₅**   pudze]   axxt.   STRICT I: *HLB!
        b.   Mehkal λ_5 [**iž'es'₅**   pudze]   axxt.   SLOPPY: ✓

As for the absence of all but a STRICT II-interpretation with the putatively semantically free form *sōn*, the analysis only accounts for one half of the data, though. Under VP-ellipsis, the unattested STRICT I-reading for (12a) would require the co-indexing in (29a) in the antecedent clause, which is blocked by the semantically equivalent binding-structure in (29b) under HLB. Of course, (29b) itself is blocked by the lexical specification of *sōn*, which has to be semantically free. This leaves STRICT II as the only available interpretation.

(29)   a.   *Mehkal₅   [**sōn**₅   pudze]   axxt.   STRICT I: *HLB!
        b.   *Mehkal λ_5 [**sōn**₅   pudze]   axxt.   SLOPPY: *LEX

Unfortunately, this analysis cannot explain why *sōn* does *not* license a STRICT I-reading in OFCs. Rather, it incorrectly predicts (14) to allow for a STRICT I-reading, for the very same reason that its counterpart (15) with *iž'es'* is ambiguous in such contexts, see above. In particular, the unattested coreferential construal in (30a) is *not* semantically equivalent to the binding configuration in (30b) and hence should *not* be blocked by HLB. Again, the binding configuration is ruled out by the lexical specification of *sōn*, just as in (29b).

(30) a. Mehkal₅ [**sōn**₅ pudze] axxt. STRICT I:
      b. *Lyse Mehkal **λ**₅ [**sōn**₅ pudze] axxt. SLOPPY: *LEX

There are further problems with this alternative account. For once, it does not account for the fact that the pronoun *sōn* can be coreferent with a DP in a higher clause, as was shown in (10ab) above. The argument goes as follows. Since the coreferential construal and the binding configuration are semantically equivalent with individual-denoting antecedents, the binding configuration in (31) should be the only available structure, in violation of the lexical requirement for *sōn* to be free.

(31)   Mehkal **λ**₅ says   [that … **sōn**₅ …]

An even more serious problem for the analysis is constituted by the fact that *sōn* can be semantically bound by quantified DPs from a higher clause, as shown in (24) above, in blatant violation of its putative specification as semantically free.

Finally, there are also a number of conceptual problems. First, if HLB were to apply both in KS and in English, we would be at a loss to explain why English pronouns do allow for a STRICT I-interpretation under VP-ellipsis, as shown in (1), whereas the KS pronoun *sōn* does not, unless we assume two different resolution mechanisms for VP-ellipsis in the two languages, namely semantic identity for KS and NP-parallelism for English (Büring 2005, see also Roelofsen 2008 for discussion). The question is, then, if we prefer to locate cross-linguistic variation in the mechanisms for VP-resolution, or rather in the interface principles for pronoun interpretation. Here, we opt for the latter option for reasons that will become especially clear in section 4.3. Finally, notice that the alternative analysis cannot do without a third ingredient, which is required in order to account for the obligatory coreference of the pronoun *iž'es'* with a clausemate antecedent, as shown in (32):

(32)   Mehkal₁ **iž'es'**₁/*₃   pudze   axxt.
          Mehkal   REF:3SG.GEN   reindeer butchers
          'Mehkal₁ butchers his₁/*₃ reindeer.'

The unattested reading without coreference would be compatible with the underspecification of *iž'es'*, which could be either semantically bound or free. Moreover, the intended non-coreferent interpretation is *not* semantically equivalent to the anaphoric construal with reference to the subject DP, and hence should not be blocked by HLB either. So, in order to account for the obligatory coreference of *iž'es'*, the alternative analysis will have to resort to a syntactic notion of reflexivity, stipulating that *iž'es'* must be syntactically bound in its local binding domain. As a result, the alternative analysis is less parsimonious than the analysis proposed above, and is therefore to be disprefered on general conceptual grounds.

4.3   A final argument for SYN-SEM-BIND

A final argument in favour of our analysis based on SYN-SEM-BIND over alternative analyses in terms of HLB comes from the semantic behaviour of KS pronouns under long VP-ellipsis. Long VP-ellipsis is illustrated for English in (33a), which is again ambiguous between a STRICT I/II- and a SLOPPY interpretation, and for KS in (33b)

(33)   a.   Mehkal says [that **his** reindeer calved], and so does Jovan.
       b.   Mehkal   sarrn [**sōn**   allt   šennted'], Jovan nydše
            Mehkal   says 3SG.GEN   she.deer   calved   Jovan also

The two analyses from above make different predictions concerning the interpretation of long VP-ellipsis in KS for the following reasons. First, the alternative analysis in section 4.2, which takes *sōn* to be semantically bound, and HLB to be active, predicts the KS sentence in (33b) to have only a STRICT II-interpretation, as was the case with instances of short ellipsis in (12b) and (13b) above. The STRICT I-interpretation with coreference to the antecedent *Mehkal* would be blocked by HLB (under semantic equivalence), but the resulting binding configuration, as well as a SLOPPY-interpretation relative to *Jovan*, would be blocked by the lexical specification of *sōn*, which must be free. By contrast, the analysis put forward in section 4.1 predicts (33b) to have all three readings: STRICT I, STRICT II, and SLOPPY. This is because *sōn* is syntactically free in its immediate clause, for which reason SYN-SEM-BIND does not apply. As a result of this, *sōn* is free to corefer with the antecedent *Mehkal* (under co-indexation) (34a), giving rise to the STRICT I-interpretation; or it can corefer with a contextually salient 3rd party (34b), giving rise to STRICT II; or, it can be bound by a binder index that is situated below *Mehkal* (34c), giving rise to the sloppy interpretation.

(34)   a.   **Mehkal$_1$**   sarrn [**sōn$_1$** allt   šennted'], ...   STRICT I
       b.   Mehkal$_1$ sarrn [**sōn$_5$** allt   šennted'], ...   STRICT II
       c.   Mehkal λ_1 sarrn [**sōn$_1$** allt   šennted'], ...   SLOPPY

As it happens, (33b) does indeed have all the three readings indicated in (34), providing yet more evidence in favour of our analysis put forward in section 4.1.

(33)   b.   Mehkal sarrn [**sōn**   allt   šennted'], Jovan nydše
            Mehkal says 3SG.GEN she.deer   calved   Jovan also
            '…and Jovan also says that Mehkal's she-reindeer calved.'   STRICT I ✓
            '…and Jovan also says that c's she-reindeer calved.'   STRICT II ✓
            '…and Jovan also says that his (=Jovan's) she-reindeer calved.' SLOPPY   ✓

4.4   Conclusion

We have argued for the following analysis of the two series of pronouns in Kildin Saami. First, the two pronoun types are lexically specified as syntactically bound (*iž'es'*) or free (*sōn*) in their local binding domain. Second, unlike in English, the local binding domain for KS pronouns is the finite clause, no matter whether the pronouns occur in argument position, or as possessive pronouns inside a DP. Third, the interface principle SYN-SEM-BIND governs the interpretation of the syntactically bound pronoun *iž'es'*, which has to be interpreted as semantically bound since it is always syntactically bound. Because of SYN-SEM-BIND, *iž'es'* can only receive a sloppy interpretation under VP-ellipsis, whereas it gives rise to both SLOPPY

and STRICT I-interpretations when interpreted in the c-command domain of *only*-DPs. Fourth, in case of a long-distance anaphoric relationship between an antecedent DP and the free form *sōn* across a sentential boundary, SYN-SEM-BIND does not apply and *sōn* can be semantically bound by such long-distance antecedents.

Finally, in KS at least, the phenomenon of *reflexivity* is primarily a syntactic phenomenon, and not a semantic one, because of the lexical specification requirung the reflexive pronoun *iž'es'* to be syntactically bound in its clause. We discuss a possible source for this syntactic restriction in section 5.

5 Cross-Linguistic Variation and Syntactic Reflexivity

This section discusses two additional issues that arise in connection with our analysis of pronoun in Kilidn Saami. In section 5.1, we consider once more the cross-linguistic variation between KS, on the one hand, and English, on the other, when it comes to the interpretation of pronouns. In section 5.2, we propose to derive the syntactic reflexivity of the KS pronoun *iž'es'* from its morpho-syntactic nature as a minimal pronoun in the sense of Adger (2008) and Kratzer (2009). Section 5.3 concludes with a final curious observation concerning *iž'es'*.

5.1 Cross-linguistic variation in the interpretation of pronouns

On our analysis, the lexical specifications of KS pronouns and their English counterparts do not differ. Both the free form *sōn* and the non-reflexive English forms *he/she/his/her/etc.* are specified as syntactically free in their local binding domain, whereas the reflexive forms *iž'es'* as well as English *himself/herself* are taken to be syntactically bound in their local binding domain. In other words, reflexive pronouns are not lexically specified as *semantically* bound in KS, nor are they in English. Evidence for this from English comes in form of the optional availability of STRICT I-readings with reflexive pronouns in the c-command domain of *only*-DPs, which is in full parallel with the KS-facts observed in 3.2:

(35)   Only IDI voted for **himself**.   [Büring 2005: 141]
        i.   'Idi is the only one that voted for himself.'   (SLOPPY)
        ii.   'Idi is the only one that voted for Idi.'   (STRICT I)

One source for the observed variation in pronoun interpretation between KS and English, and more generally across languages, is the actual size of the local binding domain. In English, pronominal arguments must be free within their clause, whereas possessive pronouns must be free within their embedding DP. The behaviour of pronouns is more uniform in KS, by contrast, as the local binding domain for pronominal arguments and possessive pronouns is invariably their immediate clause. From a cross-linguistic perspective, differences in the size of the local binding domain are a well-established phenomenon, though (see, e.g., Büring 2005, for extensive discussion and an overview).

A more fundamental difference has to do with the fact that KS and English employ different interpretation mechanisms for structures with co-indexed DPs. For English, the *interface rule* has been proposed as a promising candidate for the interpretation of pronouns (see e.g. Reinhart 2006, Roelofsen 2008), as it correctly predicts the strict-sloppy ambiguity of pronouns under both short and long VP-ellipsis. For KS, by contrast, we have proposed

the interface rule SYN-SEM-BIND, which correctly predicts only sloppy-reading under *short* VP-ellipsis. Incidentally, the same prediction would be made by Reinhart's (1983) *coreference rule* and by Büring's (2005) HLB, which is precisely the reason for why these rules are often considered inadequate for the analysis of pronouns in English. Notice, though, that the predictions of SYN-SEM-BIND and the *coreference rule* or HLB only correlate for the anaphoric relations inside the local binding domain of the pronoun, i.e. inside the immediate clause, while they make different predictions for long anaphoric dependencies across sentential boundaries. In such configurations, SYN-SEM-BIND no longer requires semantic binding under co-indexation, unlike HLB, for instance, and hence we correctly predict ambiguities in cases of *long* VP-ellipsis in KS. Interestingly, now SYN-SEM-BIND patterns with the *interface rule*, such that the following picture emerges:

(36) i.   local dependencies: SYN-SEM-BIND $\Leftrightarrow$ coreference rule/ HLB
      ii.   long dependencies: SYN-SEM-BIND $\Leftrightarrow$ interface rule

We thus arrive at the interesting situation that SYN-SEM-BIND subsumes the functions of different interpretive principles that have been independently proposed for English, but only partially so for different syntactic domains. In long anaphoric dependencies, SYN-SEM-BIND functions like the *interface rule*, whereas in local dependencies it functions more like the *coreference rule* or HLB. Still, for English, it is the interface condition that seems to make better predictions for both local and for long anaphoric dependencies.

5.2   On the source of syntactic reflexivity: *Iz* as a minimal pronoun

Having argued that the KS pronoun *iž'es'* is syntactically reflexive, we are left with the question of whether this property is just a primitive feature in the lexicon, or whether the syntactic reflexivity of *iž'es'*, i.e. the need for a clause-mate antecedent, follows for more principled reasons. In this section, we tentatively suggest that it does, and that the syntactic reflexivity of *iž'es'* follows from its underlying nature as a minimal pronoun in the sense of Adger (2008) and Kratzer (2009).

We begin with two observations concerning the morpho-syntax of pronouns of the *iž'es'*-series. First, as shown in 3.1, *iž'es'*-pronouns exhibit person agreement, and seemingly also number agreement, with singular DP-antecedents, as illustrated again in (36ab):

(36) a.   Mehkal$_1$ [**iž'es'**$_{1/*2}$ pudze]   axxt
            Mehkal   REF:3SG.GEN   reindeer   butchers
            'Mehkal butchers his own reindeer.'
      b.   Munn$_1$ [**iž'an**$_{1/*3}$ pudze]   axxte
            1SG.NOM   REF:1SG.GEN   reindeer   butcher
            'I butcher my own reindeer.'

Second, unlike with the free form *sōn*, phi-feature agreement for person (and number) is not coded on the stem, but is suffixed onto the stem *iž*, as shown in (37a). Moreover, the stem *iž* can occur independently as in intensifier, even with pronouns of the *sōn*-series (37b). Notice that *iž* is not marked for phi-features when it occurs as an intensifier and does not form the syntactic head of the nominal expression.

(37)   a.   **iž-***en/et/es'/...*
               iž -1SG/2SG/3SG
         b.   munn   **iž**
               1SG.NOM   INT
               'I myself'

Taking this observation seriously, we propose to treat *iž*-pronouns as minimal pronouns in the sense of Adger (2008) and Kratzer (2009). Unlike the regular pronouns of the *sōn*-series, which come with a full phi-feature specification from the lexicon (coded on the lexical stem), minimal *iž*-pronouns are not lexically specified for phi-features and enter the syntactic derivation without them. Adopting the analysis of pronouns as covert definite descriptions from Elbourne (2005, 2008), and in particular Adger (2008), we propose the following structure for *iž*-pronouns, in which *iž* constitutes the head of the pronominal DP:

(38)   [DP iž- [phiP ∅ [ID x]]]

In the Adger-scheme, the functional layer of *phiP* mediates between the variable core ID, a placeholder of type <e>, and the D-head *iž* which has the standard semantic of a definite determiner and is thus of type <et,e>. In particular, *phiP* shifts the type of ID from <e> to <et>, as is required for interpretability at the semantic interface, but in order to do so, the *iž*-DP needs to acquire phi-features from its syntactic context. Adopting a concrete proposal by Kratzer (2009), we propose that *iž*-DPs acquire their phi-features from *clause-mate* DP-antecedents (possibly mediated by the verbal predicate in ways outlined in Kratzer 2009) in a process of *feature transmission*, as schematically illustrated in (39).

(39)   [CP   Mehkal₁ ... [DP1 [DP2 *iž*₁- [phiP ∅ [ID]]] pudze]]
                   [3pers] ---------> [3pers]

In brief, the syntactic reflexivity of *iž*-pronouns derives in a principled way from their underlying nature as minimal pronouns and their need to acquire phi-features from a clause-mate antecedent.

Crucially, *phiP* in (39) need not be completely specified for person *and* number features for semantic well-formedness to obtain, and, lo and behold, this is what we find for *iž*-pronouns in Kildin Saami. On closer scrutiny, it shows that *iz*-pronouns must inflect for person, but not for number. This is witnessed by the corpus example (40) from Kuruč et al. (1985), in which the reflexive pronoun occurs in its singular form *iž'es'*, and not in the independently attested plural form *iž'edan*, even though it takes a plural DP as antecedent.

(40)   mīn   āj   ja až   toavsenn'e
        1PL:GEN   grandfather:NOM.**PL**   and father:NOM.**PL** bravely
        [DP īž-**es'**   šannt-jēmm'n'e] pɨnnen'
            REFL-**3SG**:GEN   birth-earth   defend:3PL.PST
        'Our grandfathers and fathers defended their own homelands bravely.'

Leaving the issue for further research, we take the number mismatch in (40) as welcome support for our analysis of *iž*-pronouns as minimal pronouns, which in turn accounts for their syntactic reflexivity: *iž*-pronouns need to recover phi-features from clause-mate antecedents.

5.3 A final observation

We conclude the disucssion of pronoun interpretation in KS with the observation that, interestingly, two co-valued occurrences of *iž'es'* are not licit, cf. (41a). While we are unable to identify the precise reasons for the ungrammaticality of (41a) (possibly, they may follow from constraints on feature transmission under co-indexation), we observe that the substitution of one instance of *iž'es'* with the free form *sōn* results in ungrammaticality as well, cf. (41b). This is expected since the pronoun *sōn* must not be syntactically bound in its clause.

(41)   a.   *Mehkal$_1$ lajhe   [**iž'es'**$_1$ ahhka]   [**iž'es'**$_1$ pudze]
              Mehkal   gave   REF: 3SG.GEN woman   REF:3SG.GEN   reindeer
      b.   *Mehkal$_1$ lajhe   [**iž'es'**$_1$ ahhka]   [**sōn**$_1$ pudze]
              Mehkal   gave   REF: 3SG.GEN woman   3SG.GEN   reindeer
      c.   Mehkal$_1$ lajhe   [ahhka-**s'**$_1$]   [**sōn**$_1$ pudze]
              Mehkal   gave   woman-POSS:3SG   3SG.GEN   reindeer
              'Mehkal gave his own wife his own reindeer.'

In this deadlock situation, the possessive suffix -*s'*, which is otherwise unattested in contemporary KS (unlike in other Saami varieties), is inserted in order to express the intended meaning, according to which Mehkal gave his own reindeer to his own wife (41c).

6   Conclusion

Despite first appearances to the contrary, KS pronouns do not differ from their English counterparts in their lexical specification as syntactically free or bound: Pronouns of the *sōn*-series must be syntactically free in their local binding domain, whereas pronouns of the reflexive *iž'es'*-series must be syntactically bound. Still, the difference in size of the local binding domain for possessive pronouns (immediate clause vs. DP) and a different interpretive principle on anaphoric relationships (SYN-SEM-BIND) result in some unexpected patterns in the distribution and interpretation of KS pronouns, when compared to English. In particular, reflexive *iž'es'* in Kildin Saami can be interpreted as coreferent when SYN-SEM-BIND does not apply, namely when semantic binding and coreference are not semantically equivalent. It is hoped that the foregoing observations will instigate more work in the semantic interpretation of pronouns in the many varieties of Saami.

Acknowledgements

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