

### COREFERENCE IN NORTHERN INTERIOR SALISH

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This paper provides a preliminary report on coreference possibilities in the Northern Interior Salish languages, St'át'imcets (Lillooet), Secwepemctsin (Shuswap), and Nlakapamuxcín (Thompson). Data involving coreference with overt possessors of NP are presented, as well as data regarding overt nominals inside relative clauses, complement clauses and adjunct clauses. We claim that coreference possibilities in NIS are determined by the interaction of (at least) three mechanisms: binding conditions, a parallelism constraint on discourse functions, and a constraint on the relationship between an R-expression and a referentially-dependent null pronoun.

The data will show that the three languages differ in certain respects in which coreference patterns they allow, with a major split between ST' on the one hand, and NL and SE on the other. In ST', Condition C operates only within minimal clauses; there are therefore no Condition C effects into any type of subordinate clause or relative clause. In NL and SE, on the other hand, we see the familiar adjunct clause/complement clause asymmetry with Condition C effects. This provides strong evidence for a structural distinction between complement clauses and adjunct clauses in Salish, contrary to claims made by Jelinek and Demers (1982), Jelinek (1990).

Within the possessive paradigm, the languages again show a split. The ST' data can be accounted for under an analysis whereby binding is defined in terms of m-command

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Abbreviations: NIS Northern Interior Salish, NL Nlakapamuxcín, SE Secwepemctsin, ST' St'át'imcets, appl applicative, caus causative, conj conjunctive, deic deictic, det determiner, erg ergative, inc inceptive, obl oblique, o.o.c. out of control, pass passive, po possessive, pst past, quot quotative, s singular, su subject, tr transitive.

rather than c-command; NL and SE appear to require a c-command condition on the relationship between an R-expression and a referentially-dependent null pronoun. We show that the possessive paradigm in any of the NIS languages cannot be accounted for unless overt argument NPs appear in argument positions.

Finally, all three languages display a parallelism constraint on discourse functions which states that coreferent elements must have the same discourse function.

#### 1. Background

##### 1.1. Binding Theory

Within GB, coreference possibilities between noun phrases are determined by Conditions A through C of the Binding Theory, given in (1) (D the relevant local domain):

1. A: if  $\alpha$  is an anaphor, interpret it as coreferential with a c-commanding phrase in D
- B: if  $\alpha$  is a pronominal, interpret it as disjoint from every c-commanding phrase in D
- C: if  $\alpha$  is an R-expression, interpret it as disjoint from every c-commanding phrase (Chomsky 1992:61)

As an example of the application of the binding conditions, the string \*She<sub>i</sub> likes Mary<sub>i</sub>'s brother' is ungrammatical in English because the subject pronoun c-commands the (possessor of the) object NP, causing a Condition C violation if the pronoun and the possessor are coreferential.

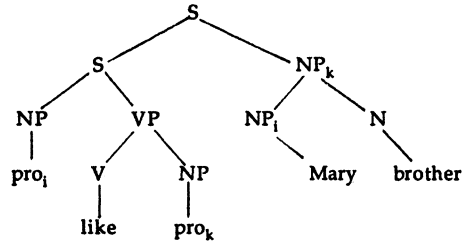
For our present purposes, Condition A is not relevant, since independent NP anaphors (reflexives and reciprocals) do not exist in Salish languages, being represented instead by affixes on the predicate.

##### 1.2. Pronominal Argument Languages

The NIS languages show the diagnostics of pronominal argument languages. Pronominal morphology on the predicate marks all verbal arguments. Overt nominals which correspond to arguments are optional, and word order is relatively free. Current analyses of such languages (e.g. Jelinek 1984, 1990, Jelinek and Demers 1982, Baker 1991, Kinkade 1983) hold that all overt nominals are in adjoined positions. This analysis

predicts that a sentence such as 'She<sub>i</sub> likes Mary<sub>i</sub>'s brother' will be grammatical, unlike in English. This is shown in (2) (which follows Baker's 1991 analysis of Mohawk, including null pronouns in argument position). The R-expression 'Mary' is not c-commanded by the coindexed pronominal, and coreference should therefore be possible:

2.



Baker (1991) argues in addition that in Mohawk, complement clauses are in argument position, while adjunct clauses are adjoined. Coreference between a pronoun in a matrix clause and an overt nominal inside a complement clause is therefore ruled out by Condition C. Jelinek and Demers (1982) and Jelinek (1990), on the other hand, claim that all subordinate clauses are in adjoined positions in Salish languages. This proposal predicts that an R-expression inside any subordinate clause (complement or adjunct) should be able to corefer with an argument of the matrix clause.

Evidence from *wh*-questions in the NIS languages points to a clear structural asymmetry between complement clauses and adjunct clauses (see Davis, Gardiner and Matthewson 1993). This leads us to expect that the NIS languages should resemble Mohawk in their coreference possibilities. Since complement clauses in NIS are in argument position, we expect Condition C effects into clauses. On the other hand, coreference into NP arguments and adjunct clauses should be freely allowed. The following sections document the Condition C evidence from NIS; it is shown that while the complement clause/adjunct clause asymmetry is supported, the possibilities are not what is predicted by a straight Condition C account.

## 2. Possessives

As outlined in the previous section, the adjunction analysis of pronominal argument languages predicts that the entire paradigm of possessive coreference shown in (3) should be grammatical in NIS:

3. a. Mary<sub>i</sub> kicked her<sub>i</sub> brother
- b. Her<sub>i</sub> brother kicked Mary<sub>i</sub>
- c. Mary<sub>i</sub>'s brother kicked her<sub>i</sub>
- d. She<sub>i</sub> kicked Mary<sub>i</sub>'s brother

The facts are somewhat different. (4) shows that while sentences corresponding to (3a) are grammatical in NL, the patterns in (3b,c) are ungrammatical:

4. m1?x-at-áš + Mary + šəm?éstm-š  
 kick-tr-3Erg det Mary det brother-3Po  
 Mary<sub>i</sub> kicked her<sub>i</sub> brother  
 \* her<sub>i</sub> brother kicked Mary<sub>i</sub>  
 \* Mary<sub>i</sub>'s brother kicked her<sub>i</sub> (NL)

An alternative strategy (passive) is used to render (3b,c), as shown in (5):

5. m1?x-at-ám + Mary t-+ səm?éstm-s  
 kick-tr-pass det Mary obl-det brother-3Po  
 Mary<sub>i</sub> was kicked by her<sub>i</sub> brother  
 \* Mary<sub>i</sub> kicked her<sub>i</sub> brother (NL)

It is difficult to determine the status of (3d) ('she<sub>i</sub> kicked Mary<sub>i</sub>'s brother') in NL; it appears that this pattern may be ungrammatical for independent reasons. When an object NP contains an overt possessor, our consultant consistently uses the applicative morpheme on the predicate, combined with possessor raising. The possessor becomes the direct object of the predicate, and the possessum becomes an adjunct, as shown in (6):

6. a. + John wík-x-t-na t-+ šqáqxa?-š  
 det John see-appl-tr-1sSu obl-det dog-3Po  
 I saw John's dog (NL)
- b. ??wík-t-na + John + šqáqxa?-š  
 see-tr-1sSu det John obl-det dog-3Po  
 I saw John's dog (NL)

The sentence 'She<sub>i</sub> kicked Mary<sub>i</sub>'s brother' therefore automatically involves possessor raising of 'Mary', making 'Mary' the direct object of the predicate, as shown in (7):

7. m1ʔx-xí-t-š xáʔa + Mary t-t šəmʔéstm-š  
kick-appl-tr-3Erg deic det Mary obl-det brother-3Po  
she<sub>i</sub> kicked Mary<sub>i,j</sub>'s brother

(NL)

Coreference between the subject 'she' and the object 'Mary' is ruled out straightforwardly, either by Condition B if argument positions are occupied by pro, or by Condition C if 'Mary' is itself in object position. We cannot determine the status of an overt possessor contained within an object.<sup>2</sup>

The SE data parallel those in NL, except that in SE the applicative construction is optional:<sup>3</sup>

8. ʃ-qéʔčə-s ɣ<sup>w</sup>i-st-és ʃ-Mary  
det-Mary like-caus--3erg det-father-3po  
a. Mary<sub>i</sub> likes her<sub>i</sub> father  
b. \* her<sub>i</sub> father likes Mary<sub>i</sub>  
c. \* Mary<sub>i</sub>'s father likes her<sub>i</sub>  
d. \* she<sub>i</sub> likes Mary<sub>i</sub>'s father

(SE)

The readings in (8b) and (d) are grammatical with disjoint reference, meaning that constraints on coreference are clearly involved. (8c) is ungrammatical even with disjoint reference, due to an independent constraint against a null animate object when the subject is overt (see Gardiner in prep).

Turning to ST', we see that unlike in NL or SE, the (3b) pattern is grammatical:<sup>4</sup>

9. áčxən-aš k<sup>w</sup>-š John ta štáʔ-š-a  
see-3Erg det-nom John det aunt-3sPo-det  
John<sub>i</sub> saw his<sub>i</sub> aunt  
his<sub>i</sub> aunt saw John<sub>i</sub>

(ST')

<sup>2</sup> It is possible that this difficulty could be avoided with a different dialect of NL; Thompson and Thompson (1992) do not mention the obligatory use of the applicative morpheme with overt possessors in objects, implying that it does not hold for their consultants.

<sup>3</sup> Word order is fairly free in SE (Gardiner in prep, Gardiner, Matthewson and Davis 1993); only one order is shown in (8), but the ungrammatical readings cannot be saved by altering the surface order.

<sup>4</sup> (9) could not be interpreted either as 'John's aunt saw him', or as 'He saw John's aunt', as k<sup>w</sup>š indicates clausal argument status of 'John' and does not occur on possessors.

10. čuwñ-áš š-Mary t1 qóqčək-š-a  
kick-3Erg nom-Mary det brother-3sPo-det  
čuwñ-áš t1 qóqčək-š-a š-Mary  
a. Mary<sub>i</sub> kicked her<sub>i</sub> brother  
b. her<sub>i</sub> brother kicked Mary<sub>i</sub>  
c. \* Mary<sub>i</sub>'s brother kicked her<sub>i</sub>  
d. \* she<sub>i</sub> kicked Mary<sub>i</sub>'s brother

(ST')

The evidence in (10) is not conclusive, however. There is a consistent ambiguity between interpretations of (10) in which the post-predicate string contains a single noun phrase (giving the readings 'Mary's brother kicked her', 'she kicked Mary's brother'), and interpretations in which it contains two separate NPs ('her brother kicked Mary', 'Mary kicked her brother'). The ambiguity is eliminated by the use of co-ordinate structures, as shown in (11):

11. a. čuwñ-ftaš š-John mútaʔ š-Mary t1 qóqčək-š-a  
kick-3plsu nom-John and nom-Mary det brother-3sPo-det  
they kicked John and Mary's brother  
John<sub>i</sub> and Mary<sub>j</sub> kicked his<sub>i</sub>/her<sub>j</sub> brother  
\* Mary<sub>i</sub>'s brother and John kicked her<sub>i</sub>
- b. čuwñ-áš š-John mútaʔ š-Mary t1 qóqčək-š-a  
kick-3Erg nom-John and nom-Mary det brother-3sPo-det  
her<sub>i</sub> brother kicked John and Mary<sub>i</sub>  
his<sub>i</sub> brother kicked John<sub>j</sub> and Mary<sub>i</sub>  
s/he<sub>i</sub> kicked John and Mary's<sub>i,j</sub> brother

(ST')

The ungrammatical reading for (11a), where 'Mary's brother' is unambiguously a single NP constituent, means that we can rule out 'Mary<sub>i</sub>'s brother kicked her<sub>i</sub>'. Similarly, (11b) shows that 'she<sub>i</sub> kicked Mary<sub>i</sub>'s brother' is ungrammatical. A task for future research is to elicit the same co-ordinate structures for SE and NL.

The cross-linguistic results for the possessive paradigm are given in (12):

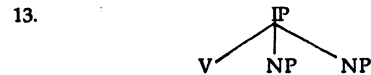
	Li	Th	Sh
12. a. Mary <sub>i</sub> kicked her <sub>i</sub> brother			
b. Her <sub>i</sub> brother kicked Mary <sub>i</sub>		*	*
c. Mary <sub>i</sub> 's brother kicked her <sub>i</sub>	*	*	*
d. She <sub>i</sub> kicked Mary <sub>i</sub> 's brother	*	*	*

Not only is there variation within NIS, none of the languages show the patterns predicted for a pronominal argument language (which, as noted above, would be total grammaticality). ST' shows the behaviour predicted for a 'flat' language, with all nominals in argument positions, but with no structural asymmetry between subjects and objects (see Speas 1990).

### 2.1. Accounting for the possessive paradigms

The data, while differing across the three languages, all point to one conclusion: overt nominals are in argument position in NIS, rather than in adjoined position. The explanation for the ST' paradigm is necessarily different from the explanation for the NL/SE paradigm.

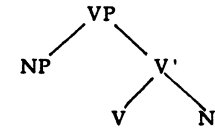
As noted above, the ST' data can be accounted for if it is assumed that the language has a 'flat' structure, as shown in (13):



In this structure, all nominals c-command each other. An overt possessor will be c-commanded by an argument pronoun, whether the pronoun is the subject or the object, and coreference is therefore ruled out for sentences corresponding to (3c,d). On the other hand, a possessor pronoun may freely corefer with an argument R-expression, since the possessor cannot c-command out of its NP. (3a,b) are therefore correctly predicted to be good.

As noted by Speas (1990:189-90), the same results are predicted if the hierarchical structure in (14) (which adopts the VP-internal subject hypothesis) is assumed, but binding is defined in terms of m-command rather than c-command. Any element within the VP m-commands everything else within the VP, giving the same results as if the structure were flat:

14.



The ST' results are not, on the other hand, compatible with an analysis which places overt NPs in adjoined position. If all NPs are adjoined, there is no way to distinguish the grammatical from the non-grammatical sentences. For (3c,d) to be ruled out under the adjunction analysis, a pronoun in argument position must m-command an adjoined nominal. If this is the case, however, (3a,b) are also incorrectly ruled out, as the argument pronoun coreferenced with the adjoined R-expression 'Mary' causes a Condition C violation.

The SE and NL data can be accounted for by the following condition, if the structure in (14) is adopted:

15. An R-expression must c-command all elements in its clause which are referentially dependent upon it

The only member of the possessive paradigm where this condition is satisfied is the grammatical 'Mary<sub>i</sub> kicked her<sub>i</sub> brother'; in all other cases, c-command of the pronoun by the R-expression does not hold, as the reader can easily verify. This explanation crucially relies on a structural asymmetry between subjects and objects, and hence on the claim that overt NPs are in argument position rather than adjoined. As in ST', the SE and NL possessive data suggest that the adjunction analysis of pronominal argument languages proposed by Baker, Jelinek and others may not be applicable to NIS.

### 3. Relative clauses

If overt nominals are in argument position in the NIS languages, we expect a priori that Condition C effects will arise with NPs containing relative clauses just as they do with possessors. A subject pronoun should not be able to corefer with an R-expression inside an object relative clause, since the relative clause and everything within it is c-commanded by the pronoun. Contrary to expectation, coreference is possible in this case in ST'. Data is given in (16):

- 16.a. áčxən-aš ta šqáyx<sup>w</sup>-a ta tawən-táll-ha š-Mary ta púk<sup>w</sup>-a  
see-3Erg det man-det det sell-tali-det nom-Mary det book-det  
she<sub>i</sub> saw the man who sold Mary<sub>i</sub> the book<sup>5</sup> (ST')
- b. áčxən-aš ta šqáyx<sup>w</sup>-a ta umən-áš-a š-Mary ta púk<sup>w</sup>-a  
see-3Erg det man-det det give-3Erg-det nom-Mary det book-det  
she<sub>i</sub> saw the man that Mary<sub>i</sub> gave the book to (ST')

Ditransitives are used to show coreference into relative clauses, because freedom of word order eliminates the interest of straightforward transitive examples like that in (17). Word order does not preclude 'Mary' in (17) from being the subject of the matrix clause, an interpretation which avoids Condition C:

17. čumqšáh-aš ta šqáyx<sup>w</sup>-a ta x<sup>w</sup>fš-aš-a k<sup>w</sup>-š Mary  
kiss-3Erg det man-det det love-3Erg-det det-nom Mary  
a. she<sub>i</sub> kissed the man Mary<sub>i</sub> loves  
b. Mary<sub>i</sub> kissed the man she<sub>i</sub> loves (ST')

The grammaticality of (16a-b), however, where word order crucially prevents 'Mary' from being an argument of the matrix clause, shows that there are no Condition C effects into relative clauses in ST'. This contrasts with the possessive data, and suggests that Condition C in ST' only operates within single clauses, not across clause boundaries. The revised Condition C for ST' is given in (18) (where D = the minimal clause):

18. if  $\alpha$  is an R-expression, interpret it as disjoint from every m-commanding phrase in D

Evidence from complement clauses, which are placed in argument position for independent reasons (Davis, Gardiner and Matthewson 1993), but yet do not show Condition C effects with pronouns in higher clauses, also supports the revised Condition C in (18) (see section 4).

In SE and NL, coreference between a matrix pronominal and an R-expression inside an object relative clause is disallowed:

<sup>5</sup> The primary reading for (16a) is 'the man saw the one who sold Mary the book', and similarly for (16b).

19. wík-t-š ʎ-sqélemx<sup>w</sup> tə-x<sup>w</sup>i-st-ém-əs ʎ-Mary  
see-tr-3Erg det-man obl-like-caus-pass-3conj det-Mary  
she<sub>i</sub> saw the man who likes Mary<sub>i,j</sub>  
Mary<sub>i</sub> saw the man who likes her<sub>i</sub> (SE)
20. wík-t-š + šoʎsqáyx<sup>w</sup> + ná-x-t-š t-t puk<sup>w</sup>+ Mary  
see-tr-3Erg det man det give-appl-tr-3Erg obl-det book det Mary  
she<sub>i</sub> saw the man Mary<sub>i,j</sub> gave the book to (NL)

The SE and NL relative clause data are exactly those predicted by a traditional Condition C account, if NPs containing relative clauses are in argument position. It is only ST' which has the revised version of Condition C given in (18).

#### 4. Complement clauses

With coreference into complement clauses, the languages again show a split: ST' allows coreference into complement clauses, while SE and NL do not. The data support the analysis whereby ST' has the restricted version of Condition C, and SE and NL have the traditional Condition C. Data is given in (21-23):

- 21.a. čut inátx<sup>w</sup>-aš k<sup>w</sup>-š áčxən-č-aš kə+š-Mary + nátx<sup>w</sup>-aš  
say yest-3Erg det-nom see-1sOb-3Erg fut nom-Mary when tom.-3Erg  
she<sub>i</sub> said yesterday that Mary<sub>i</sub> will see me tomorrow (ST')
- b. sq<sup>w</sup>álen-aš k<sup>w</sup>-š John k<sup>w</sup>-š nit š-Mary ta q<sup>w</sup>ačšč-a  
tell-3Erg det-nom John det-nom foc nom-Mary det leave-det  
John told her<sub>i</sub> that it was Mary<sub>i</sub> that left  
she<sub>i</sub> told John that it was Mary<sub>i</sub> that left (ST')
- c. čut k<sup>w</sup>-š áčxən-aš ta šmútač-a š-Bill  
say det-nom see-3Erg det woman-det nom-Bill  
he<sub>i</sub> said that Bill<sub>i</sub> saw the woman (Bill<sub>i</sub> said that he<sub>i</sub> saw the woman)  
she<sub>i</sub> said that Bill saw the woman<sub>i</sub> (ST')
- 22.a. m-ləxéxyə?-xt-sm-s k-s-xist-ém ʎ-Mary tə-John  
compl-tell-appl-1acc-3erg irr-s-like-pass det-Mary obl-John  
she<sub>i</sub> told me that Mary<sub>i,j</sub> is liked by John (SE)

- b. m-ləxéxyə?-xt-sm-s ʔ-Mary k-s-xɪst-ém tə-John  
pat-tell-appl-1acc-3erg det-Mary irr-s-like-pass obl-John  
Mary<sub>i</sub> told me that she<sub>i</sub> is liked by John (SE)
- c. m-ləxéxyə?-xt-sm-s l-pəxyéwtəs meʔ wikts(-əkʷə)  
compl-tell-appl-1acc-3erg det-yesterday inc see-tr-3erg(-quot)  
ʔ-Mary ʔ-John e-pəxyéwtəs  
det-Mary det-John det-tomorrow  
she<sub>i</sub> told me yesterday that Mary<sub>i,j</sub> will see John tomorrow (SE)
- 23.a. čún-čəm-š ʔamfnt-m + Mary t-t John  
tell-1sOb-3Erg like-pass det Mary obl-det John  
she<sub>i</sub> told me that Mary<sub>i,j</sub> is liked by John (NL)
- b. čúnčəmš + Mary ʔamfnt-m t-t John  
Mary<sub>i</sub> told me that she<sub>i</sub> is liked by John (NL)

### 5. Adjunct clauses

Coreference into adjunct clauses is grammatical in all three languages. This is predicted by the analysis proposed; in no case is Condition C applicable, since adjunct clauses are in adjoined position. (In ST', Condition C would of course be inapplicable across clause boundaries anyway). Data is given in (24-27):

24. ka xʷák-a kət + kálan-aš kʷ-š Mary ta máw-a  
a. o.o.c. wake-o.o.c. fut when bite-3Erg det-nom Mary det cat-det  
the cat<sub>i</sub> will wake up if Mary bites it<sub>i</sub> (preferred reading)  
b. she<sub>i</sub>'ll wake up if the cat bites Mary<sub>i</sub> (ST')
25. nqšáħka kət + čuŵn-áš kʷ-š Mary ta máw-a  
laugh fut when kick-3Erg det-nom Mary det cat-det  
she<sub>i</sub>'ll laugh when Mary<sub>i</sub> kicks the cat (ST')
26. čumqsn-s lə-wík-t-m-əs tə-Mary ʔ-John  
kiss-3erg det-see-tr-pass-3conj obl-Mary det-John  
she<sub>i</sub> kissed him<sub>j</sub> when Mary<sub>i</sub> saw John<sub>j</sub> (SE)

27. huʔ nčumqš-aš ha wík-t-š uš + John + Mary  
fut kiss-3Erg dir see-tr-3Erg 3conj det John det Mary  
she<sub>i</sub> will kiss him<sub>j</sub> when Mary<sub>i</sub> sees John<sub>j</sub> (NL)

### 6. Constraints on discourse functions

In the preceding sections it has been established that coreference into adjunct clauses in NIS is not constrained by Condition C, and that coreference into relative clauses and complement clauses is not constrained by Condition C in ST'. However, it is not the case that coreference in these instances is always possible. This section provides evidence that in all three languages, there is an additional constraint on coreference which operates across clause boundaries. This states that coreferential elements must have the same discourse function. (A similar parallelism constraint on coreference is noted for Bella Coola by Davis and Saunders 1984. See Matthewson 1993 for discussion of ST'). In addition, coreferent elements preferentially must refer to 'old' information. The constraints on discourse function narrow the options for coreference considerably, and are totally independent of Condition C. Not only is c-command irrelevant to the discourse constraints, but they operate equally to constrain coreference between null and overt elements.

In ordinary transitive clauses in Salish languages, the subject slot is occupied by 'old' information, and the object slot by 'new' information. In a text, for example, the topic of the narrative will generally appear in subject position. Should the topic of the discourse be the patient of a transitive predicate, one of two strategies is utilized: in all the NIS languages, passive may be used, making the topic the single argument of a passive predicate. In addition to passivation, ST' has another method of rescuing a topic which is the patient of a transitive clause: the suffix -tali may be used. -tali occurs optionally in cases of subject extraction (questioning or focus), but in terms of its discourse function appears to operate exactly like the topical object markers discussed for various other Salish languages by Kinkade (1989, 1990). (See Matthewson (1993) for justification for analyzing -tali as a topical object marker). The topical object construction, as noted by Kinkade, is largely interchangeable with passive in its function: both are used when the topic of discourse (the 'old' information) would otherwise appear as the object of an ordinary transitive predicate.

Data illustrating the parallelism constraint on discourse functions and the constraint that coreferent elements be 'old' information is given in (28). (Although the surface order differs in the three examples, there is no evidence that S-Structure precedence plays a role in the coreference facts, and order can be considered irrelevant):

28.  $\text{c}\acute{\text{u}}\text{m}\text{q}\acute{\text{s}}\acute{\text{a}}\text{h}\text{-a}\acute{\text{s}}$   $\text{k}^{\text{w}}\text{-}\acute{\text{s}}$   $\text{Mary ta } \text{\textcircled{S}}\text{q}\acute{\text{a}}\text{y}\text{x}^{\text{w}}\text{-a ta } \text{\textcircled{X}}^{\text{w}}\text{\textcircled{I}}\text{\textcircled{S}}\text{-a}\acute{\text{s}}\text{-a}$   
 kiss-3Erg det-nom Mary det man-det det love-3Erg-det (ST')  
 $\text{c}\acute{\text{u}}\text{m}\text{q}\text{s}\text{h}\text{-s}$   $\text{\textcircled{V}}\text{-}\text{\textcircled{S}}\text{q}\acute{\text{e}}\text{lm}\text{x ta-}\text{\textcircled{X}}^{\text{w}}\text{\textcircled{I}}\text{\textcircled{S}}\text{t}\acute{\text{e}}\text{s}$   $\text{\textcircled{V}}\text{-Mary}$   
 kiss-3Erg det-man obl-like-3erg det-Mary (SE)  
 $\text{\textcircled{+}}\text{a Mary n}\acute{\text{c}}\acute{\text{u}}\text{m}\text{q}\acute{\text{s}}\text{-a}\acute{\text{s}} \text{\textcircled{+}}\text{a } \text{\textcircled{L}}\text{\textcircled{O}}\text{\textcircled{?}}\text{\textcircled{S}}\text{q}\acute{\text{a}}\text{y}\text{x}^{\text{w}} \text{ta } \text{\textcircled{Y}}\text{am}\acute{\text{I}}\text{n-a}\acute{\text{s}}$   
 det Mary kiss-3Erg det man obl like-3Erg (NL)
- a.  $\text{Mary}_i$  kissed the man  $\text{she}_i$  loves  
 b. \* the man who loves her<sub>i</sub> kissed  $\text{Mary}_i$   
 c. \*  $\text{Mary}_i$  kissed the man who loves her<sub>i</sub>  
 d. \* the man  $\text{she}_i$  loves kissed  $\text{Mary}_i$

In all three languages, (28a) is the only version which is acceptable if both clauses contain ordinary transitive predicates. This is the only reading where the coreferential elements are both the subject of their respective clauses. For coreference to exist in (b-d), passive is used in NL and SE, and either passive or -tali suffixation is used in ST'. Examples are given in (29)-(31):

29. the man who loves her<sub>i</sub> kissed  $\text{Mary}_i$ :  
 a.  $\text{n}\text{\textcircled{I}}\text{\textcircled{+}} \text{ta } \text{\textcircled{S}}\text{q}\acute{\text{a}}\text{y}\text{x}^{\text{w}}\text{-a } \text{\textcircled{X}}\text{w}\text{\textcircled{I}}\text{\textcircled{S}}\text{-t}\acute{\text{a}}\text{ll}\text{\textcircled{I}} \text{\textcircled{S}}\text{-Mary } \text{\textcircled{C}}\text{u}\text{\textcircled{m}}\text{\textcircled{Q}}\text{\textcircled{S}}\text{a}\text{\textcircled{h}}\text{-t}\acute{\text{a}}\text{ll}\text{\textcircled{I}}\text{-ha}$   
 foc det man-det love-tali nom-Mary kiss-tali-det (ST')  
 b.  $\text{c}\acute{\text{u}}\text{m}\text{q}\text{s}\text{h}\text{t-m ta-}\text{\textcircled{S}}\text{q}\acute{\text{e}}\text{lm}\text{x ta-}\text{\textcircled{X}}^{\text{w}}\text{\textcircled{I}}\text{\textcircled{S}}\text{t}\acute{\text{e}}\text{m}\acute{\text{a}}\text{s}$   $\text{\textcircled{V}}\text{-Mary}$  (SE)  
 c.  $\text{n}\acute{\text{c}}\acute{\text{u}}\text{m}\text{q}\acute{\text{s}}\text{-at-m } \text{\textcircled{+}} \text{Mary ta } \text{\textcircled{Y}}\text{am}\acute{\text{I}}\text{n-t-m u}\acute{\text{s}} \text{\textcircled{+}}\text{a } \text{\textcircled{L}}\text{\textcircled{O}}\text{\textcircled{?}}\text{\textcircled{S}}\text{q}\acute{\text{a}}\text{y}\text{x}^{\text{w}}$  (NL)
30.  $\text{Mary}_i$  kissed the man who loves her<sub>i</sub>:  
 a.  $\text{c}\acute{\text{u}}\text{m}\text{q}\acute{\text{s}}\acute{\text{a}}\text{h}\text{-a}\acute{\text{s}}$   $\text{k}^{\text{w}}\text{-}\acute{\text{s}}$   $\text{Mary ta } \text{\textcircled{S}}\text{q}\acute{\text{a}}\text{y}\text{x}^{\text{w}}\text{-a ta } \text{\textcircled{X}}^{\text{w}}\text{\textcircled{I}}\text{\textcircled{S}}\text{-t}\acute{\text{a}}\text{ll}\text{\textcircled{I}}\text{-ha}$  (ST')  
 b.  $\text{c}\acute{\text{u}}\text{m}\text{q}\text{s}\text{h}\text{-s}$   $\text{\textcircled{V}}\text{-}\text{\textcircled{S}}\text{q}\acute{\text{e}}\text{lm}\text{x ta-}\text{\textcircled{X}}^{\text{w}}\text{\textcircled{I}}\text{\textcircled{S}}\text{-t-}\acute{\text{e}}\text{m-}\acute{\text{a}}\text{s}$   $\text{\textcircled{V}}\text{-Mary}$  (SE)  
 c.  $\text{\textcircled{+}}\text{a Mary n}\acute{\text{c}}\acute{\text{u}}\text{m}\text{q}\acute{\text{s}}\text{-a}\acute{\text{s}} \text{\textcircled{+}}\text{a } \text{\textcircled{L}}\text{\textcircled{O}}\text{\textcircled{?}}\text{\textcircled{S}}\text{q}\acute{\text{a}}\text{y}\text{x}^{\text{w}} \text{ta } \text{\textcircled{Y}}\text{am}\acute{\text{I}}\text{n-t-m u}\acute{\text{s}}$  (NL)
31. the man  $\text{she}_i$  loves kissed  $\text{Mary}_i$ :  
 a.  $\text{n}\text{\textcircled{I}}\text{\textcircled{+}} \text{ta } \text{\textcircled{S}}\text{q}\acute{\text{a}}\text{y}\text{x}^{\text{w}}\text{-a ta } \text{\textcircled{X}}^{\text{w}}\text{\textcircled{I}}\text{\textcircled{S}}\text{-a}\acute{\text{s}}\text{-a } \text{\textcircled{C}}\text{u}\text{\textcircled{m}}\text{\textcircled{Q}}\text{\textcircled{S}}\text{a}\text{\textcircled{h}}\text{-t}\acute{\text{a}}\text{ll}\text{\textcircled{I}} \text{\textcircled{K}}^{\text{w}}\text{-}\acute{\text{s}}$   $\text{Mary}$  (ST')  
 $\text{n}\text{\textcircled{I}}\text{\textcircled{+}} \text{ta } \text{\textcircled{S}}\text{q}\acute{\text{a}}\text{y}\text{x}^{\text{w}}\text{-a ta } \text{\textcircled{X}}^{\text{w}}\text{\textcircled{I}}\text{\textcircled{S}}\text{-a}\acute{\text{s}}\text{-a } \text{\textcircled{C}}\text{u}\text{\textcircled{m}}\text{\textcircled{Q}}\text{\textcircled{S}}\text{a}\text{\textcircled{h}}\text{-}\acute{\text{a}}\text{m } \text{\textcircled{K}}^{\text{w}}\text{-}\acute{\text{s}}$   $\text{Mary}$  (ST')  
 b.  $\text{c}\acute{\text{u}}\text{m}\text{q}\text{s}\text{h}\text{t-m ta-}\text{\textcircled{S}}\text{q}\acute{\text{e}}\text{lm}\text{x ta-}\text{\textcircled{X}}^{\text{w}}\text{\textcircled{I}}\text{\textcircled{S}}\text{t}\acute{\text{e}}\text{s}$   $\text{\textcircled{V}}\text{-Mary}$  (SE)  
 c.  $\text{\textcircled{+}}\text{a Mary n}\acute{\text{c}}\acute{\text{u}}\text{m}\text{q}\acute{\text{s}}\text{-at-m } \text{\textcircled{+}}\text{a } \text{\textcircled{L}}\text{\textcircled{O}}\text{\textcircled{?}}\text{\textcircled{S}}\text{q}\acute{\text{a}}\text{y}\text{x}^{\text{w}} \text{ta } \text{\textcircled{Y}}\text{am}\acute{\text{I}}\text{n-}\acute{\text{s}}$  (NL)

While the parallelism constraint could be stated over structural subjects for NL and SE, the use of -tali, which does not alter grammatical relations, for the same purpose in ST'

suggests that the relevant notions are ones of discourse function.

(32) illustrates that it is not Condition C which is operating; the same results arise when coreferent elements are all null pronouns (at least in ST' and SE; the NL data have not yet been elicited):

32.  $\text{c}\acute{\text{u}}\text{m}\text{q}\acute{\text{s}}\acute{\text{a}}\text{h}\acute{\text{a}}\text{s ta } \text{\textcircled{X}}^{\text{w}}\text{\textcircled{I}}\text{\textcircled{S}}\text{a}\acute{\text{s}}\text{a}$   
 a. she kissed the one she loves  
 b. \* the one who loves her kissed her  
 c. \* she kissed the one who loves her  
 d. \* the one she loves kissed her (ST')
33.  $\text{m-l}\acute{\text{a}}\text{\textcircled{X}}\acute{\text{e}}\text{\textcircled{X}}\text{\textcircled{Y}}\text{\textcircled{?}}\text{-xt-sm-s k-s-}\text{\textcircled{X}}^{\text{w}}\text{\textcircled{I}}\text{\textcircled{S}}\text{-}\acute{\text{e}}\text{s}$   
 pst-tell-appl-lacc-3erg irr-s-like-caus-3erg  
 a.  $\text{she}_i$  told me that  $\text{she}_i$  likes him  
 b. \*  $\text{she}_i$  told me that he likes her<sub>i</sub> (SE)

Parallelism operates into relative clauses, complement clauses and adjunct clauses. Examples of adjunct clause parallelism effects are given in (34-35); although Condition C is not applicable, coreference is only possible if parallelism is obeyed.<sup>6</sup>

34.  $\text{c}\acute{\text{u}}\text{m}\text{q}\acute{\text{s}}\acute{\text{a}}\text{h}\text{-a}\acute{\text{s}} \text{\textcircled{+}} \text{\textcircled{S}}\text{\textcircled{C}}\text{\textcircled{X}}\text{\textcircled{e}}\text{\textcircled{n}}\text{-a}\acute{\text{s}} \text{ta } \text{\textcircled{S}}\text{q}\acute{\text{a}}\text{y}\text{x}^{\text{w}}\text{-a } \text{\textcircled{S}}\text{-Mary}$   
 kiss-3erg if see-3erg det man-det nom-Mary  
 a.  $\text{she}_i$ 'll kiss him<sub>j</sub> if  $\text{Mary}_i$  sees the man<sub>j</sub>  
 b. \*  $\text{she}_i$ 'll kiss him<sub>j</sub> if the man<sub>j</sub> sees  $\text{Mary}_i$   
 c. \*  $\text{he}_j$ 'll kiss her<sub>i</sub> if  $\text{Mary}_i$  sees the man<sub>j</sub>  
 d. \*  $\text{he}_j$ 'll kiss her<sub>i</sub> if the man<sub>j</sub> sees  $\text{Mary}_i$  (ST')
35.  $\text{hu}\text{\textcircled{Y}} \text{n}\acute{\text{c}}\acute{\text{u}}\text{m}\text{q}\acute{\text{s}}\text{-a}\acute{\text{s}} \text{ha } \text{w}\acute{\text{I}}\text{k-t-}\acute{\text{s}} \text{u}\acute{\text{s}} \text{\textcircled{+}} \text{John } \text{\textcircled{+}} \text{Mary}$   
 fut kiss-3erg dir see-tr-3erg 3conj det John det Mary  
 a.  $\text{Mary}_i$  will kiss John<sub>j</sub> when  $\text{she}_i$  sees him<sub>j</sub>  
 b. \*  $\text{Mary}_i$  will kiss John<sub>j</sub> when  $\text{he}_j$  sees her<sub>i</sub>  
 c. \* John<sub>j</sub> will kiss  $\text{Mary}_i$  when  $\text{he}_j$  sees her<sub>i</sub>  
 d. \* John<sub>j</sub> will kiss  $\text{Mary}_i$  when  $\text{she}_i$  sees him<sub>j</sub> (NL)

<sup>6</sup> There are some as yet unexplained ungrammaticalities: (34d) and (35d) obey parallelism, yet coreference is not possible.

## 7. Conclusions

In this paper we have presented a wide range of data on coreference possibilities from the NIS languages. Within the possessive paradigm, it was shown that ST' exhibits the pattern predicted for a language which either has a flat clause structure, or utilizes m-command rather than c-command as the relevant notion for binding. NL and SE, on the other hand, are compatible with a hierarchical structure and a condition stating that an R-expression must c-command a null pronoun which is referentially dependent on it. Common to all three languages is the necessity that overt argument nominals be in argument position in order to capture the relevant asymmetries.

In ST', there are no Condition C effects into relative clauses, complement clauses, or adjunct clauses. We have claimed that this results from a revised version of Condition C whereby an R-expression must only be disjoint from m-commanding elements within the minimal clause. SE and NL, on the other hand, show behaviour which follows straightforwardly under a traditional version of Condition C, and provides strong support for a structural asymmetry between complement clauses and adjunct clauses in NIS.

Finally, we have shown that the languages share a parallelism constraint on discourse functions such that coreferential elements must share the same discourse function. This constraint may well operate across the whole Salish family (Davis and Saunders 1984, Kinkade 1989, 1990).

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