

On the semantics-morphology-  
syntax collaboration in  
Algonquian

Towards the proper treatment of  
reference tracking

*by Dieter Wunderlich,*

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## A simple case of binding in Ojibwe (=Nishnaabemwin)

(1) (Valentine 2001: 633)

Assume an ordered set of two persons

<Peter=he, Peter's son= his\_son>,

and an asymmetric relationship of 'seeing',

then there are two possible events:

- a.    *w-gwisa-n*            *w-gii-waabm-aa-n*            *Piyel.*  
      3P-son-obv            3-past-see-**dir**-obv            Peter  
      'Peter<sub>i</sub> saw his<sub>i/\*k</sub> son.'
- b.    *w-gwisa-n*            *w-gii-waabm-igo-n*            *Piyel.*  
      3P-son-obv            3-past-see-**inv**-obv            Peter  
      'His<sub>i/\*k</sub> son saw Peter<sub>i</sub>.' [≈ Peter was seen by his son]

## The same in a slightly different dialect of Ojibwe

(2) (Bailin & Grafstein 1991: 407)

a. *o-miseez-an o-gii-wiidookaw-aa-n Mali.*

3P-sister-obv 3-past-help -**dir**-obv Mary


‘Mary<sub>i</sub> helped her<sub>i/\*k</sub> sister.’

b. *o-miseez-an o-gii-wiidookaw-igw-an Mali.*

3P-sister-obv 3-past-help -**inv**-obv Mary

‘Her<sub>i/\*k</sub> sister helped Mary<sub>i</sub>.’

## What is special about Algonquian

- The interpretation does not depend on the linear order of the constituents.
  - The interpretation does not depend on any c-command relationship.
  - The interpretation only depends on the interaction of voice and obviation.
- i. **Voice** (direct vs. inverse) is a mapping from salience to argument hierarchy.
- dir: the more salient person is  the logical subject (=the higher argument)
- inv: the less salient person is
- ii. **Obviation status** (obviative vs. proximate) determines co-reference.
- In discourse, all animate entities are strictly ordered according to salience:
- 2 > 1 > X (unspecific) > 3 (=prox) > 4 (=obv) > 5 (obv2) ...
- Co-indexation: Elements of the same obviation status are co-referent.

The possessor is more salient than the possessee

- a. *o-miseez-an o-gii-wiidoockaw-aa-n Mali.*  
3P-sister-obv 3-past-help -**dir**-obv Mary  
'Mary<sub>i</sub> helped her<sub>i/\*k</sub> sister.'

'Mary' is proximate and logical subject,  
'the sister' is obviate and logical object,  
'her' must be proximate; there can be only one proximate,  
hence, 'Mary'='her'

- b. *o-miseez-an o-gii-wiidoockaw-igw-an Mali.*  
3P-sister-obv 3-past-help -**inv**-obv Mary  
'Her<sub>i/\*k</sub> sister helped Mary<sub>i</sub>.'

Here, 'Mary' and 'her sister' exchange their logical roles

## Possible and impossible interpretations

- a. *w-gwisa-n w-gii-waabm-aa-n John-an.*  
3P-son-obv 3-past-see-dir-obv John-obv  
'His<sub>k/\*i</sub> son saw John<sub>i</sub>.' 'his' must be proximate,  
'John' can only be obv2
- b. *John w-gwisa-n w-gii-waabm-aa-n oosa-n.*  
John 3P-son-obv 3-past-see-dir-obv 3P.father-obv  
§ 'John<sub>k</sub>'s son<sub>i</sub> saw his<sub>i</sub> father<sub>\*k/m</sub>.'  
'John'(prox) cannot be the 'father'(obv2)

## Raising to object in Plains Cree

Even if the obviate subject is raised to the matrix, the object of the dependent verb can bind the possessor of the subject in (b) (Dahlstrom 1991: 72f.)

- a. *ni-kiskeeyim-aa-w* George *ee-saakih-aa-t* *o-kosis-a*.  
1-know-dir-3 George conj-love-**dir**-3 3P-son-obv  
'I know (that) George<sub>i</sub> loves his<sub>i</sub> sons.'
- b. *ni-kiskeeyim-**im**-aa-wa* George *ee-saakih-**iko**-t* *o-kosis-a*.  
1-know-**obv**-dir-3 George conj-love-**inv**-3 3P-son-obv  
'I know (that) his<sub>i</sub> sons love George<sub>i</sub>.'

## Co-indexation between dependent and matrix clause in Ojibwe

Since only one proximate person can be present:

a. *da-andabagizo-w giispin wiiba John goskozi-d.*  
fut-go.swimming-3 [if early John get.up-3.conj]

‘He<sub>i</sub> will go swimming if John<sub>i</sub> gets up early.’

b. *o-gikeendaan aakozi-d John.*  
3-know [sick-3 John]

‘He<sub>i</sub> knows John<sub>i</sub> is sick.’

☞ C-command does not play any role.



## Quantifier binding between arguments in Ojibwe (Dahlstrom 1991: 87,99)

1. *kahkiyaw iskweew-ak saakih-ee-w-ak o-taanis-iwaaw-a.*  
 all woman-pl love-**dir**-3-pl 3P-daughter-3plP-obv  
 ‘All women<sub>i</sub> love their<sub>i</sub> daughters.’

2a. *kahkiyaw iskweew-ak saakih-ik-w-ak o-taanis-iwaaw-a.*  
 all woman-pl love-**inv**-3-pl 3P-daughter-3plP-obv

b. *o-taanis-iwaaw-a saakih-ik-w-ak kahkiyaw iskweew-ak.*  
 3P-daughter-3plP-obv love-**inv**-3-pl all woman-pl

c. *kahkiyaw saakih-ik-w-ak o-taanis-iwaaw-a iskweew-ak.*  
 all love-**inv**-3-pl 3P-daughter-3plP-obv woman-pl

‘Their<sub>i</sub> daughters love all women<sub>i</sub>.’ [ $\approx$  all women are loved by their daughters.]

$\forall x$  (woman(x)  $\rightarrow$  x’s daughter loves x)

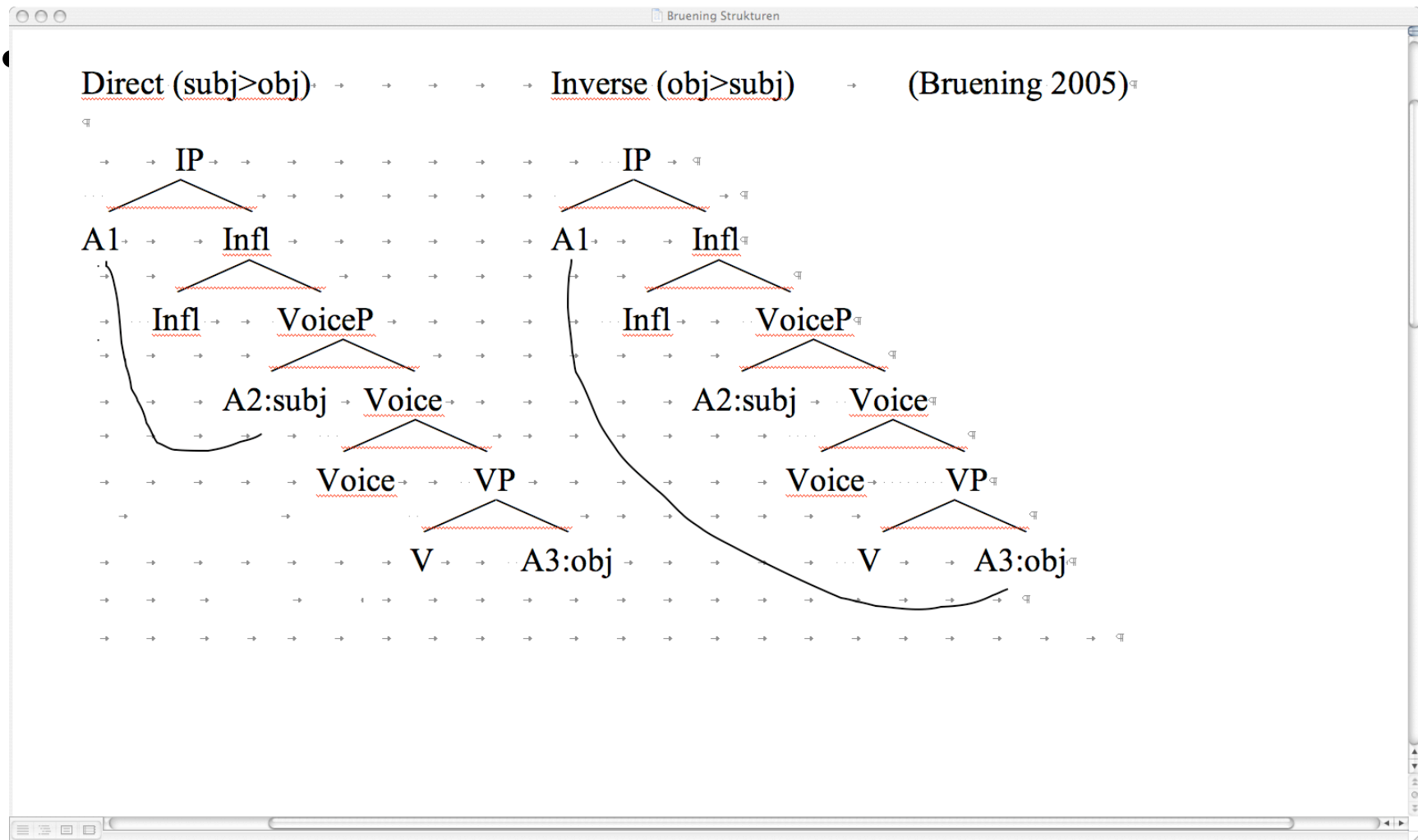
The same kind of quantifier binding in  
Passamaquoddy (Bruening 2005: 13)

*yatte wen pilsqehsis*    *?-kis-cem-ku-l*    *w-ikuwoss-ol.*  
each who girl            3-perf-kiss-**inv**-obv    3-mother-obv

‘Her<sub>i</sub> mother kissed each girl<sub>i</sub>.’

$\forall x$  (girl(x)  $\rightarrow$  x’s mother kissed x)

# Bruening's A-movement analysis for the inverse voice



## Quantifier scope in Passamaquoddy (Bruening 2009: 434)

a. *skitap psite ʔ-sakolon-a puhtaya.*

man all 3-hold.onto-**dir**.obv bottle.obv.pl

‘A man is holding all the bottles.’  $\exists > \forall$

b. *psite puhtaya-k ʔ-sakolon-oku-wa-l peskuw-ol skitapi-yil.*

all bottle-3P 3-hold-**inv**-3pl-obv one-obv man-obv

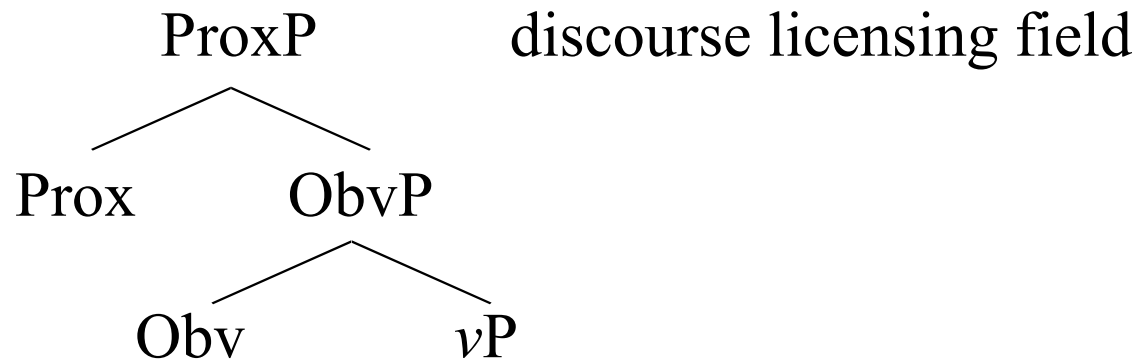
‘One man is holding all the bottles.’  $\exists > \forall, \forall > \exists$

- Bruening argues that A-movement in the inverse voice enables two different scope relations. However, the position of the object is not at all restricted to a high syntactic position.

## Quantifier scope in Ojibwe (Lochbihler 2009)

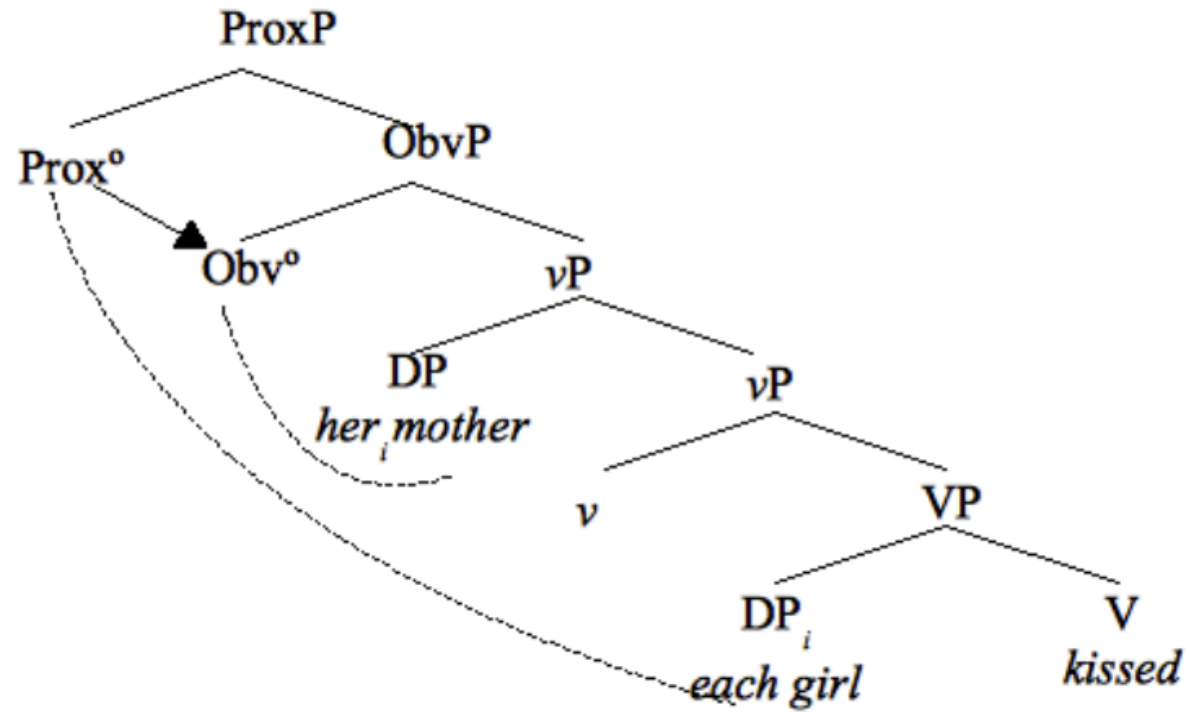
- a. *nine gii-kinowenm-aa-n kina binoejii-un.*  
man past-look.after-dir-obv every child-obv  
'A man looked after every child.'  $\exists > \forall, \forall > \exists$
- b. *kina gwiozens bamwidonun naagnun.*  
every boy carry.TI plates  
'A boy is carrying every plate.'  $\exists > \forall, \forall > \exists$
- Here, scope ambiguity occurs even if the subject (existentially bound) is in the higher syntactic position. Bruening's most important argument loses its power.

Lochbihler 2009: A proximate always c-commands an obviative in its domain and never vice versa.



- The explanation is simple: The proximate binds the possessor of an obviative in its domain because the possessor is proximate (and not because of a c-command relationship). Moreover, the proximate does not need to be syntactically higher than the obviative.

- b. *Internal binds into external argument:*  
'Her<sub>i</sub> mother(obv) kissed(INV) each girl<sub>i</sub> (prox).'



## Clause-external co-reference in Plains Cree (Wolfart & Carroll 1981)

a. *naapeew atimw-a waapam-ew ee-sipweehte-t* [» SS]  
man dog-obv see-dir conj-leave-3  
'The man<sub>prox</sub> saw the dog as he<sub>prox</sub> left.'

b. *naapeew atimw-a waapam-ew ee-sipweehte-yit* [» DS]  
man dog-obv see-dir conj-leave-3obv  
'The man saw the dog<sub>obv</sub> as he<sub>obv</sub> left.'

- Within a certain discourse span (exceeding the simple clause), proximate entities are identical with all other proximates, and obviative entities are identical with other obviatives (unless they are obviative to the second degree).



## Discourse theory in Algonquian - summary

- The Algonquian languages obey a strict salience ordering of discourse elements. For a certain discourse span, all 3rd persons are ordered according to *prox* > *obv* > *obv2* ... As a rule, possessors count as more salient than possesseees.
- Whether a certain animate entity functions as subject or as object of a verb, is regulated by the direct/inverse morphology rather than by case. Moreover, obviative marking on both nouns and verbs regulates the obviation state of each discourse entity within a complex predication.
- Algonquian languages are badly understood if inverse morphology is analyzed as a kind of case (Halle & Marantz 1993) or agreement morphology (McGinnis 1999). Likewise, inverse morphology differs from A-movement (Bruening 2009), and the *prox* > *obv* order is not a syntactic requirement (Lochbihler 2009/2012).

