Quantifier Constructions in Ojibwe

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I present novel data that exposes the unique restrictions on quantifiers in Ojibwe (Central Algonquian) showing that quantifiers can associate with restrictors at a long distance, but only those which are lower in the surface structure, and arguing for covert QR (contra Bruening 2001, 2008). First I give an account of variable binding in Algonquian and present Ojibwe scope data which contrast with Bruening's (2001, 2008) A-movement analysis and the Passamaquoddy data (Eastern Algonquian). Next I look at the unexpected behavior of quantifiers in Ojibwe which show freedom in taking scope but rigidity in association with restrictors. Finally I introduce new data showing the use of wh-words as indefinites in Ojibwe, which behave distinctly from other indefinite restrictors.

Bruening (2001, 2008) accounts for special scope and binding facts found in Passamaquoddy with an A-movement analysis of the Algonquian Inverse System (IS). In IS a verb is marked as direct when the subject outranks the object (1a) (2,1>3), and is marked as inverse when the object instead outranks the subject (1b). Bruening argues that while the direct maintains a subject-over-object structure, the inverse involves A-movement of the object above the subject, reversing argumental positions.

(1) a. n-waabm-aa b. n-waabm-ig (Ojibwe)
1-see-DIRECT 1-see-INVERSE
'I see him.' 'He sees me.' (Valentine 2001:270)

Bruening claims that scope is derived from A-positions (not QR) since Passamaquoddy data exhibits rigid scope in the direct (2a), where subject-over-object structure is constant, but ambiguous scope in the inverse (2b), since the A-moved object may reconstruct back below the subject. Variable binding is accounted for in the same way where a subject can bind into the object in the direct (3a), and an object can bind into the subject in the inverse (3b), but not vice versa.

(2) a. Skitap psite '-sakolon-àpuhtayà b. Psite puhtaya-k '-sakolon-oku-wa-lskitapi-yil
man all 3-hold-**DIR** bottle.ObvP all bottle-3P 2-hold-**INV**-3P-obv man-Obv
'A man is holding all the bottles.'∃>∀,*∀>∃ 'One man is holding all the bottles.' ∃>∀, ∀>∃
(Passamaquoddy; Bruening 2008:6)

(3) a. w-waabm-aa-n w-gwisan b. w-waabm-igo-n w-gwisan (Ojibwe)
3-see-DIR-obv 3-son 3-see-INV-obv 3-son
'He$_1$(prox) sees his$_1$ son(obv).' 'He$_1$(obv) sees his$_{*1}$ son(prox).'
'His$_{*1}$ son(prox) sees him$_1$(obv).' 'His$_1$ son(obv) sees him$_1$(prox).' (Rhodes 1993:3)

Regarding the variable binding facts (which are found across Algonquian) I claim that the special behaviour is actually a result of restrictions on 3rd person arguments in these languages and is only indirectly related to direct vs. inverse. Variable binding generally occurs with two 3rd person arguments, which must be asymmetrical in Algonquian – one 3rd person may be prox(imate) (topic) and the other obv(iative) (backgrounded) which are ranked: 2,1>3prox>3obv. I argue that the important factor in binding is the generalization that prox may bind obv, but not vice versa, despite grammatical roles. My account involves an Agreement relation between the 3rd arguments and *v*P external projections, ProxP > ObvP, which contribute obligatory discourse features and that control binding from Prox^o and Obv^o.

If we take the generalization that prox binds obv exclusively, Bruening's variable binding solution comes into question, although his proposal elegantly accounts for Passamaquoddy scope. However, I have collected new data that illustrates ambiguous quantifier scope in the direct in Ojibwe (4), indicating that Bruening (2001, 2008) cannot be extended across Algonquian languages since the A-movement effects are absent. I claim that there is QR in Ojibwe and that scope is not derived from A-positions.

(4) a. nine gii-kinowenm-aa-n kina binoejii-un (*or* <u>kina</u> nine gii-kinowenm-aa-n binoejii-un)

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man pst-look.after-DIRECT-obv every child-obv (Ojibwe)
'A man looked after every child.' ∃>∀, ∀>∃

b. kina gimaa gii-kowendan shogening
every chief pst-look.after-TI/DIR reserve
'A chief looked after every reserve.' ∃>∀, ∀>∃

c. kina gwiozens bamwidonun naagnun
every boy carry-TI/DIR plates
'A boy is carrying every plate.' ∃>∀, ∀>∃ (Field work: B.J., E.W. 16-7/12/08)

In fact, the situation of Ojibwe quantifiers is even more complex. It has been noted that quantifiers may be dislocated from their restrictors (5) without affecting scope (consider alternatives in (4a)), and that a single overt quantifier can associate with multiple restrictors (6) (Junker 1994). Furthermore, my field work has revealed that a quantifier must be to the left of its restrictor so that it cannot associate with a higher restrictor in the surface structure (7).

(5) *Gakina* wesaa ga-da-nisaaganiwiwag gi-da-*binoojiizhi*minaan-ag. (Ojibwe)
all part fut-da-be.killed 2-da-child-pl
'All of our children are going to be killed.' (Spielmann 1998:190)

(6) Kakinao-waabam-aa-wa-an pebens-an ininiw-ag (Maniwaki Ojibwe)
every 3-see-DIR-pl-obv child-obv man-pl
'Every man sees every child.' (Junker 1994:2)

(7) a. (i) gaa gegoo gii-miit-sii-n
neg (some)thing pst-eat-neg-obv
'He/she ate nothing.'
(ii)*gegoo gaa gii-miit-sii-n
(Field work: D.K., E.W. 16/12/08)

b. (i) kina gegoo gii-miij-un (Ojibwe)
every (some)thing pst-eat-obv
'He/she ate everything.'
(ii)*gegoo kina gii-miij-un

It might be expected that the ordering of quantifiers and restrictors should not be fixed given the freedom of word order in the language and the possibility of quantifier float which produces a restrictor-quantifier order. Therefore, this kind of "reverse quantifier float" has direct implications for the theory since it depends on surface structure (i.e. cannot be adjusted at LF) and association with multiple restrictors suggests that quantifiers and restrictors do not necessarily form a constituent early in the derivation. Several possibilities arise: (i) the restrictor might raise at LF to the position of the quantifier, or (ii) the two elements associate with one another in-situ. I look at how the LF mapping to interpretation proceeds in Ojibwe, considering Heim's (1982) unselective binding and Hamblin's (1976) expanding alternatives.

In addition to the plain indefinites (like in (7)), which are well documented, I have new data that involves wh-words receiving existential force (8) (versus interrogative interpretation).

(8) a. wenesh gaa-waabm-at b. wenesh *wenesh* gaa-waabm-aat (Ojibwe)
who wh.pst-see-2subj who who wh.pst-see-conj
'You saw someone.' 'Who saw *something*?' (Field work: E.P., 7/5/08 E.W. 16/12/08)

These types of indefinites have not been previously recognized in Ojibwe (but see Bruening 2007 for Passamaquoddy). Wh-indefinites tend to appear preverbally and may trigger wh-agreement on the verb, which correlates with wh-movement. The behaviour of wh-indefinites is intriguing since these are not expected to wh-move and they have a close relationship with interrogative constructions.

The new data I present poses important questions about the typological behaviour of quantifiers and differentiates Ojibwe from the scope possibilities analyzed by Bruening (2001, 2008) for Passamaquoddy. Indefinites, as restrictors of quantifiers, exhibit special properties especially when in the form of wh-

words which appear to move. Ojibwe quantifier constructions are unexposed in the literature and this work stands as unique and fundamental to the understanding of Algonquian languages.

References: Bruening, B. 2001. *Syntax at the Edge*. PhD thesis, MIT. | **Bruening**, B. 2007. Wh-in-Situ Does Not Correlate with Wh-Indefinites or Question Particles. *LI* 38:139-166. | **Bruening**, B. 2008. Algonquian Languages Have A-Movement and A-Agreement. To appear in *LI*. | **Hamblin**, C. L. 1973. Questions in Montague English. *Foundations of Language* 10:41-53. | **Heim**, I. 1982. *The Semantics of definite and indefinite noun phrases*. PhD thesis, UMass, Amherst. | **Junker**, M.-O. 1994. Syntaxe du quantifieur universel en Algonquin. *Canadian Journal of Linguistics* 39:1-13. | **Rhodes**, R. 1993. The Possessor Constraint. Paper presented at the 25th Algonquian Conference, Ottawa, ON. | **Valentine**, J.R. 2001. *Nishnaabemwin Reference Grammar*. University of Toronto Press.