(Non-)Configurationality in Mi'gmaq*

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1 Introduction

1.1 Non-configurationality

The presence of *configurationality*, underlying hierarchical syntactic structure, is a topic of debate within Algonquian linguistics since many languages, including Mi'gmaq[1] (an Eastern Algonquian language) seem to generally fit the following **characteristics of non-configurationality**: (i.e. Hale, 1983)

- **Discontinuous nominal expressions are allowed**
  - 'two men' in (1a) is considered to be a Noun Phrase [NP] constituent
  - 'two' & 'men' can appear in a surface order where they are not string adjacent, as in (1b)
    - however, this is a constrained as functional material can precede lexical, but not vice-versa as in (1c)
    - similar to Swampy Cree (Russell & Reinholtz, 1996) and Passamaquoddy (Bruening, 2001; Le Sourd, 2006)

(1) a. **[tapus-ijig jinm-ug]** etlenm-it
[two-PL man-PL] laugh-3PL
'Two men laugh/are laughing.'
b. **tapusijig** etlenmit **jinmug**
c. ***jinmug** etlenmit **tapusijig**

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[1]Unless noted, all data is from my own field work. Abbreviations: 0 - inanimate 3rd person, 1 - 1st person, 2 - 2nd person, 3 - 3rd person; 4 - 3rd person obviative, AN - animate, CONJ - conjunction, DU - dual, NEG - negation, OBV - obviative, PL - plural, POSS - possessive, PST - past.

- **Any NP can be omitted**
  - a verb alone can be a complete utterance, as in (2)
    - however for overt arguments to be dropped, salient discourse referents are required

(2) wigum-aji
invite-3>4PL
'S/he invites them.'

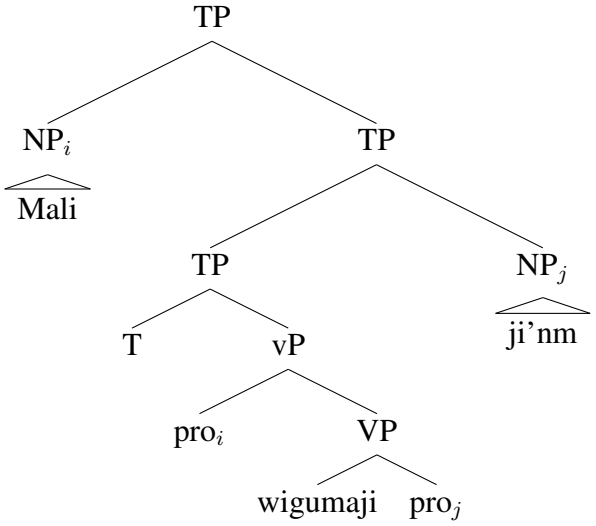
- **NPs are freely ordered**
  - as any permutation of the word order of (3) is possible
    - especially when overt arguments differ in person/number marking

(3) Mali wigum-aji jinm-ug
Mary invite-3>4PL man-PL
'Mary invites the men.'

1.2 Competing Accounts

- there have been two different approaches to account for these surface characteristics of non-configurationality:
  - assume that these surface characteristics are representative of a lack of hierarchical structure in the syntax
  - assume that the underlying syntax is hierarchical, but that there are movements which account for surface variation
- following the lead of Jelinek (1984), Baker (1993) & Russell & Reinholtz (1996) argue that overt arguments in Mohawk & Swampy Cree, respectively, are adjuncts and that there are null pronouns which sit in argument positions in the syntax
  - a Baker-style analysis of (3), shown in (4a), and a Russell & Reinholtz-style in (4b)
    - Russell & Reinholtz analysis differs in that pre-verbal arguments are structurally higher, thus *c-command* post-verbal arguments

(4) a.



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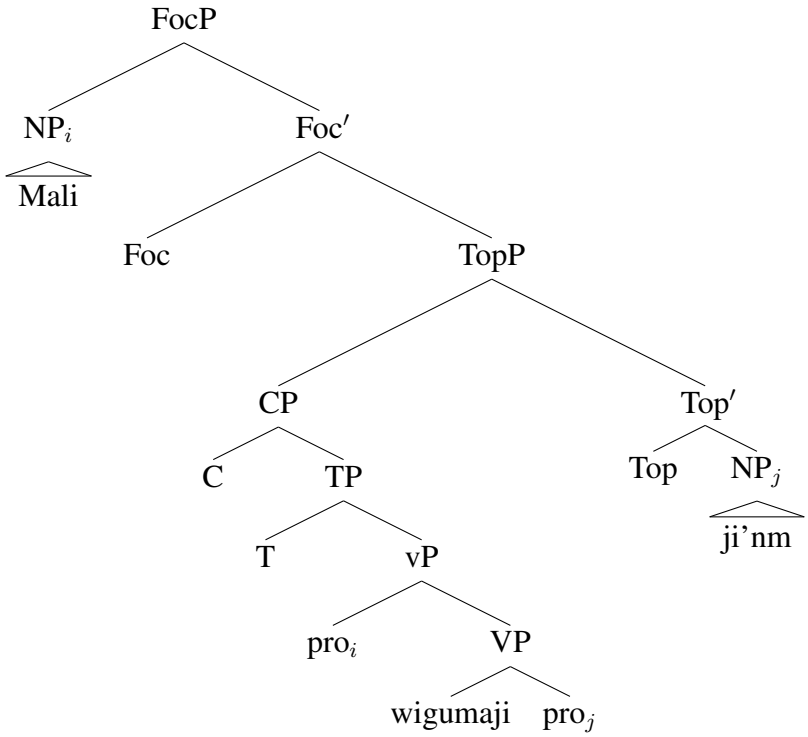
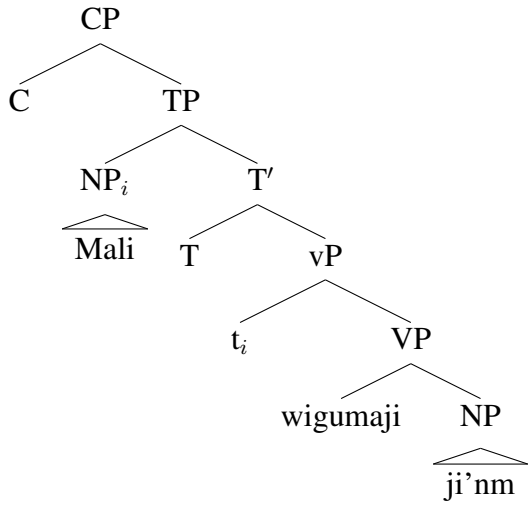


- on the other hand, Bruening (2001) argues that overt arguments are base generated in argument positions in Passamaquoddy and are subject to movement to end up in surface positions
  - a Bruening-style analysis of (3) is shown in (5)

(5)



1.3 Mi'gmaq

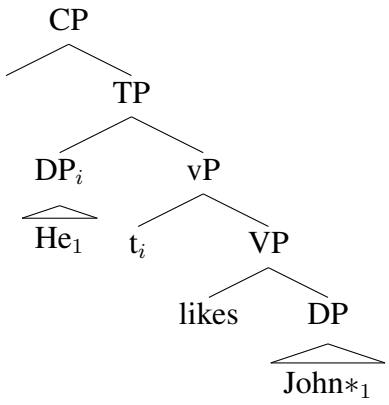
- based on my preliminary research of Mi'gmaq, I present the following new data which any analysis needs to account for:
  - Binding Condition C is active (section 2)

    - ∗ subjects seem to be structurally higher than objects (i.e. subjects asymmetrically c-command objects)
  - scope ambiguities with numeral quantifiers & negation (section 3)
    - ∗ overt arguments seem to be base generated in argument positions and undergo movement, as reconstruction to base positions seem possible
  - wh-movement analysis of wh-questions (section 4)
    - ∗ supports a view of arguments being base generated in canonical argument positions
- these data points suggests that a configurational analysis is more appropriate for Mi'gmaq
- it is unclear how a non-configurational analyses could provide a satisfactory account

2 Binding Condition C

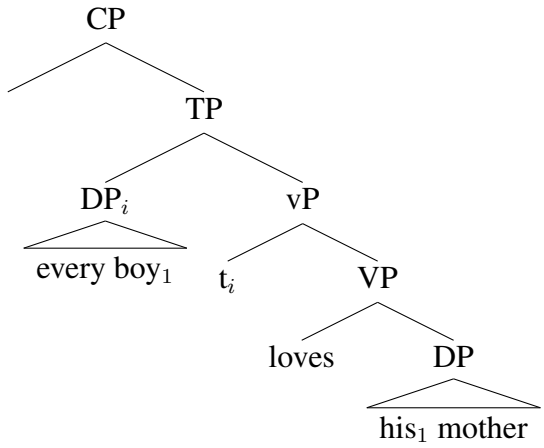
- often formulated as a constraint such as: *a full NP cannot be bound* (Buring, 2005; 7)
  - there are 2 aspects to binding: **coreference** & **variable binding**
- in 'He$_1$ likes John$*_1$', 'John', a full NP, cannot co-refer with 'he', a *c-commanding* nominal
  - the relationship between 'he' & 'John' shown in (6) is an instance of c-command, where 'he' c-commands 'John'

(6)



- a quantifier can bind a variable in a nominal it c-commands, i.e. 'every boy' can bind 'his' in 'his mother' in (7a)
- binding cannot occur if the nominal with the variable c-commands the quantifier, as in (7b)

(7) a.



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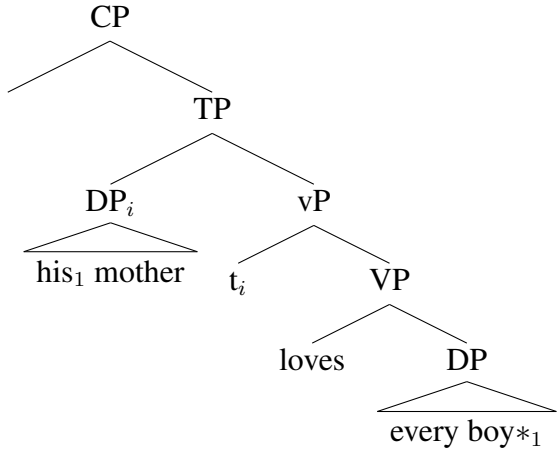


- Similar to Baker (1993) for Mohawk, Reinholtz & Russell (1995) showed that Binding Condition C is active across, but not within clauses in Swampy Cree
- Mi'gmaq patterns with Passamaquoddy, in which Bruening (2001) has shown that Binding Condition C is active both across & within clauses

2.1 Across clauses

- with a proper noun in the matrix clause, coreference is possible
  - regardless of whether pronoun is overt or covert

(8) CONTEXT: I went over to John's house. John talked about you. Later I tell you:

Sa'n teltas-it gesal-isg (negm)
John think-3 like-3>2 (3)

'John$_1$ thinks he$_1$ likes you.' (='John$_1$ thinks John$_1$ likes you')

- however with a proper name in the embedded clause, coreference is not possible
  - regardless of whether pronoun is overt or covert, although the judgement of disjoint reference is stronger with an overt pronoun

(9) CONTEXT: I went over to John's house. John talked about you. Later I tell you:

(negm) teltas-it Sa'n gesal-isg
3 think-3 John like-3>2

'He$_1$ thinks John$*_1$ likes you.' (=*'John$_1$ thinks John$_1$ likes you')

- with a quantifier in the matrix clause, variable binding is possible

(10) CONTEXT: You are a teacher of a class of boys. After a parent-teacher meeting, every boy tells another teacher (Mary) that his mother likes you. When talking with Mary, she tells you:

te's l'patuj teltas-it ug-gwij-l gesal-isg
every boy think-3 3-mother-OBV like-3>2

'Every boy$_1$ thinks his$_1$ mother likes you.' (='John$_1$ thinks that John$_1$'s mother likes you, Joe$_2$ thinks that Joe$_2$'s mother likes you,...')

- however with a quantifier in the embedded clause, variable binding is not possible

(11) CONTEXT: You are a teacher of a class of boys. After a parent-teacher meeting, every mother tells another teacher (Mary) that her son likes you. When talking with Mary, she tells you:

ug-gwij-l teltas-it te's l'patuj gesal-isg
3-mother-OBV think-3 every boy like-3>2

'His$_1$ mother thinks every boy$*_1$ likes you.' (=*'John$_1$'s mother thinks that John$_1$ likes you, Joe$_2$'s mother thinks that Joe$_2$ likes you,...')

- therefore Binding Condition C seems to be in effect across clauses

2.2 Within a clause

- regardless of the context, coreference is not possible between two 3rd persons (3rd & 4th person)
  - obviation seems to play a role in disjoint reference (i.e. Grafstein, 1984)
- but using possessives, we can see if the possessor can co-refer with a nominal in the same clause
  - i.e. 'John$_1$'s mother loves him$_1$.' vs. 'He$_1$ loves John$*_1$'s mother.'
- in context 1, the utterance in (12) is not true, this shows that 'John' cannot be in the subject position, therefore must be part of the object DP
- context 2 shows that coreference with the c-commanding pronoun is not possible when 'John's mother' is the object DP

(12) CONTEXT 1: John showed me the diamond ring he will give Peter's mother. Later I tell you:
CONTEXT 2: I went over to John's house. John showed me the new car he will give his mother. Later I tell you:

(negm) gesal-atl [Sa'n ug-gwij-l]
(3) love-3>4 John 3-mother-OBV

'He$_1$ loves John$*_1$'s mother.' (=*'John$_1$ loves John$_1$'s mother') & *'John$_1$ loves Peter$_2$'s mother'

- however (13) shows that coreference is possible when 'John's mother' is the subject DP, but only with inverse morphology
  - although the use of the overt pronoun is reported as being redundant in the inverse

(13) CONTEXT: John's mother showed me the new car she will give John. Later I tell you:

a. DIRECT:
[Sa'n ug-gwij-l] gesal-atl (negm(al))
John 3-mother-OBV love-3>4 (3(OBV))
'John$_1$'s mother loves him$*_1$.' (=*'John$_1$'s mother loves John$_1$')

b. INVERSE:
[Sa'n ug-gwij-l] gesal-tl (negm)
John 3-mother-OBV love-4>3 (3)
'John$_1$'s mother loves him$_1$.' (='John$_1$'s mother loves John$_1$')

- binding is possible when the quantifier c-commands a variable in the object, as in (14)

(14) CONTEXT: I went to talk to a teacher, Mary, and she showed me the Mother's Day cards the boys in her class made for their mothers. Later when talking about Mary's class, I tell you:
a. te's l'patuj gesal-atl ug-gwij-l
every boy love-3>4 3-mother-OBV
'Every boy$_1$ loves his$_1$ mother.' ('John$_1$ loves John$_1$'s mother, Joe$_2$ loves Joe$_2$'s mother,...')
b. te's l'patuj uggwijl gesalatl

- but binding is not possible when the variable c-commands the quantifier

(15) CONTEXT: I went to talk to a teacher, Mary, and she told me that whenever a boy in her class has a birthday, his mother always brings in a birthday cake. Later when talking about Mary's class, I tell you:

a. DIRECT:

ug-gwij-l gesal-atl te's l'patuj-l
3-mother-OBV love-3>4 every boy-OBV
'His$_1$ mother loves every boy$*_1$.' (=*'John$_1$'s mother loves John$_1$, Joe$_2$'s mother loves Joe$_2$,...')

b. INVERSE:

ug-gwij-l gesal-tl te's l'patuj
3-mother-OBV love-4>3 every boy
'His$_1$ mother loves every boy$*_1$.' (=*'John$_1$'s mother loves John$_1$, Joe$_2$'s mother loves Joe$_2$,...')

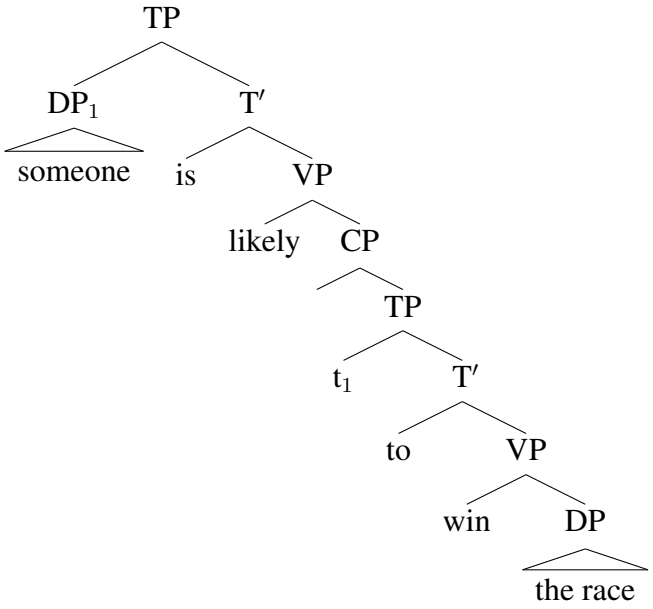
- Binding Condition C is active in Mi'gmaq across & within clauses
- this shows evidence that subjects are structurally higher than objects
  - subjects seem to asymmetrically c-command objects
- an analysis of arguments as adjuncts does not predict these binding effects
- an analysis where the pre-verbal argument asymmetrically c-comands the post-verbal argument

3 Quantifier scope ambiguities

- if quantifiers are base generated in argument positions and then are subject to movement, it is possible that there will be scope ambiguities
- but if quantifiers were only base generated as adjuncts, then we would not expect scope ambiguities to arise
- an English example where there is a scope ambiguity is shown in (16a), where difference in interpretations are between its surface form & base generated position (possible via reconstruction)
  - a typical syntactic representation is shown in (16b), where pre- & post-movement positions show both scope possibilities
  - a representation with both arguments as a sentential adjunct is shown in (16c), where there is only scope possibility (someone>likely), since there is a null argument in argument positions and there is no possibility for reconstruction

(16) a. ‘Someone is likely to win the race’
SURFACE SCOPE: ‘Someone, i.e. John, is likely to win the race’ (someone>likely)
BASE GENERATED SCOPE: ‘It is likely that someone will win the race’ (likely>someone)

b.



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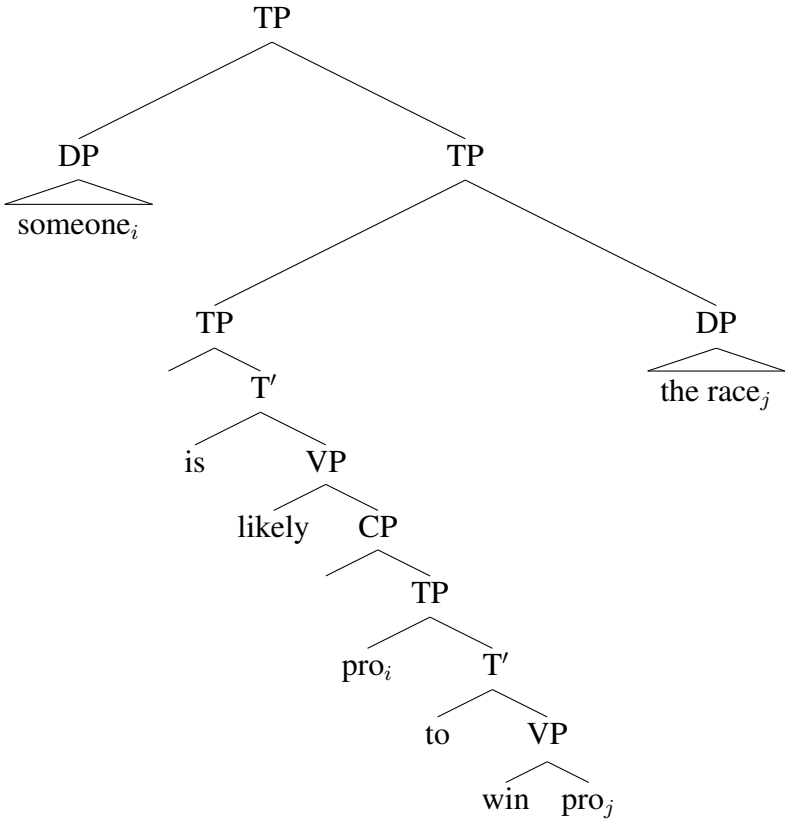


- in Mi’gmaq in (17), when a number, i.e. *tapusijig ji’nmug* ‘two men’, is within the scope of negation only a narrow scope reading is possible

- we can tell that it is in the scope of negation as it obligatorily inflects for negation, i.e. *i'wg*

(17) NARROW SCOPE CONTEXT: You see 2 men. You like 1 man and do not like the other man. You say:
WIDE SCOPE CONTEXT: There are 4 men. You like 2 men and do not like the other 2 men. You say:

mu tapus-i'wg/*-ijig ji'nm-ug gesal-aqig
NEG two-PL.NEG/*-PL man-PL like-1>3PL.NEG

'it is not the case that I like 2 men' (NARROW SCOPE OK) (NEG>2 men)
*'there are 2 men, it is not the case that I like them' (WIDE SCOPE BAD) (2men>NEG)

- when 'two men' is outside the scope of negation in (18a) & (18b), both are ambiguous between a wide scope & a narrow scope reading
  - crucially neither can inflect for negation
  - the narrow scope is helped with the addition of *gesalg newte'jit* '...I like one'

(18) NARROW SCOPE CONTEXT: There are 2 men. You like 1 man and do not like the other man. You say:
WIDE SCOPE CONTEXT: There are 4 men. You like 2 men and do not like the other 2 men. You say:

a. tapus-ijig/*-i'wg ji'nm-ug mu gesal-aqig
   two-PL/*-PL.NEG man-PL NEG like-1>3PL.NEG
   'it is not the case that I like 2 men' (NARROW SCOPE OK) (NEG>2 men)
   'there are 2 men, it is not the case that I like them' (WIDE SCOPE OK) (2men>NEG)
b. mu gesalaqig tapus-ijig/*-i'wg ji'nmug

- a possible analysis accounting for this ambiguity is that 'two men' is base generated within the scope of negation, as in (17), and undergoes movement into their surface positions in (18a) & (18b)
  - this would explain why 'two men' can take a wide scope reading in its surface position, or narrow scope in the reconstructed position in both
- a potential analysis of (18a), is that 'tapusijig' is a verb, and 'tapusijig ji'nmug' is in a cleft construction
- however while numbers can be verbal in Swampy Cree (Kevin Russell, p.c.) & Ojibwe (Glyne Piggot, p.c.) they cannot in Mi'gmaq, as shown in (19)

(19) tapus-ijig *(eig-ig)
two-PL be-DU
'There are 2(AN) present'

- scope ambiguities such as those shown above are unexpected if overt arguments are base generated as adjuncts

4 Wh-questions

- words such as *goqwei* 'what/thing' and *wen* 'who/one' are interpreted as wh-words when they appear before the verb, as in (20), and as indefinite pronoun when after the verb, as in (21)
  - although *goqwei* is not clause initial in refex:new, *Sa'n* seems to be separated by a strong prosodic break, it may be the case that wh-words must be clause initial unless there is a focused constituent

(20) WH-WORDS

a. goqwei Sa'n pegwatel-g's?
   what John buy-3>0.PST
   'What did John buy?' & *'John bought something'
b. goqwei pegwatelg's Sa'n?
c. Sa'n, goqwei pegwatelg's?

(21) INDEFINITE PRONOUNS

a. Sa'n pegwatel-g's goqwei
   John buy-3>0.PST thing
   'Did John buy any/something?' & *'John bought something'
b. pegwatelg's goqwei Sa'n?
c. pegwatelg's Sa'n goqwei?

- two possible analyses of the wh-questions in (20), is that they either involve wh-clefting or wh-movement
- while there is no evidence for a wh-cleft analysis in these cases, there is some evidence to support a wh-movement analysis

4.1 Wh-cleft analysis

- Russell & Reinholtz (1995) argue that the wh-questions in Swampy Cree the clefting of wh-words since the verbs in these constructions obligatorily take conjunct inflection (typical of embedded clauses) rather than independent inflection (typical of main clauses)
  - a wh-question is shown in (22a), with an analysis in (22b) where the wh-word is a verb and the main verb is in conjunct form
  - a typical independent form is shown in (22c), and an ungrammatical wh-question with independent morphology in (22d)

(22) SWAMPY CREE (Russell & Reinholtz, 1995; 400)

a. awêna kâ-kî-wâpamat
who that-PST-see.2>3
'Who did you see?'

b. awêna$_i$ [Op$_i$ [kâ-kî-wâpamat-pro$_i$]]
who-is-it REL that-PST-see-3

c. ki-kî-wâpamâw
2-PST-see.2>3
'You saw her/him'

d. *awêna ki-kî-wâpamâw
who 2-PST-see.2>3
'Who did you see?'

- however, in general Mi'gmaq lacks such a distinction in verbal morphology between main & embedded clauses
  - verbal morphology is identical in the matrix clause in (23a) & the embedded clause in (23b)
  - verbal morphology difference in the wh-question in (23c) seems to be related to evidentiality (Inglis, 2002)

(23) a. Sa'n pegwatel-gp wenjusun
apple John buy-3>0.PST
'John bought an apple'

b. Mali telta'sit Sa'n pegwatel-gp wenjusun
Mary think.3 John buy-3>0.PST apple
'Mary thinks John bought an apple.'

c. goqwei Sa'n pegwatel-g's?
what John buy-3>0.PST
'What did John buy?'

- there is no evidence here to assume that wh-constructions involve wh-clefts

4.2 Wh-movement analysis

- if wh-movement is behind the fronting of wh-words, it should obey constraints on wh-movement
  - wh-constructions seem to be subject to island effects
  - weak crossover is present using direct morphology, but absent using inverse
- each of the following islands have been observed so far in Mi'gmaq:
- **Coordinate Structures Constraint**
  - wh-movement cannot occur out of only one element of a coordinated structure

– both (24b) & (24c) where movement has only occurred out of one coordinate is ungramamtical

(24) a. malqgutm-utp wenjusun aq pipnaqan
eat-2>0.PST apple CONJ bread
'You ate an apple & bread.'
b. *goqwei malqgutm-usp aq pipnaqan
what eat-2>0.PST CONJ bread
'What did you eat t_i & bread?'
c. *goqwei malqgutm-usp wenjusun aq
what eat-2>0.PST apple CONJ
'What did you eat apple & t_i?'
d. goqwei malqgutm-usp
what eat-2>0.PST
'What did you eat ?'

- **Complex NP Constraint**

  – wh-movement cannot occur out of a relative clause that is headed by an NP

(25) a. l'patuj ta'n nemia-pn Sa'n-al alas-it
boy that see-3>4.PST John-OBV walk-3
'The boy that saw John is walking'
b. *wen-n l'patuj ta'n nemia-pn alas-it
boy(-OBV) that see-3>4 walk-3
'Who$_i$ did the boy that saw t_i is walking'
c. l'patuj ta'n alasit wenn nemia-sn?
boy that walk-3 who-OBV see.3>4.PST
'Who did the boy that is walking see?'

- **Adjunct Condition**

  – wh-movement cannot occur out of an adjunct

(26) a. Mise'l maja'-si'p ge's mu weltesgu-agupn Lance-l
Mike leave-3.PST while NEG meet-3>4.PST.NEG Lance-OBV
'Mike$_1$ left before he$_1$ met Lance'
b. *wen-n Mise'l maja'si'p ge's mu weltesguagupn
who-OBV Mike leave-3.PST while NEG meet-3>4.PST.NEG
'Who$_i$ did Mike$_1$ leave before he$_1$ met t_i?'

- **Left-branch Island**

  – wh-movement cannot occur out the left-branch of an NP

(27) a. Sa'n pegwatel-gp Mali-ewei wigatign
John buy-3>0.PST Mary-POSS book
'John bought Mary's book'

b. *Wen-ewei Sa'n pegwatel-g's wigatign
who-POSS John buy-3>0.PST book
'Whose$_i$ did John buy t$_i$ book?

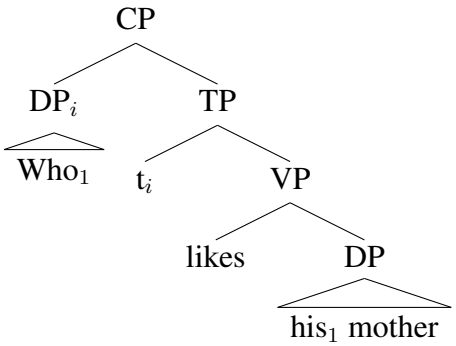
c. Wen-ewei wigatign Sa'n pegwatel-g's
who-POSS book John buy-3>0.PST
'Whose book$_i$ did John buy t$_i$?

- these 4 island constraints suggest that wh-questions in Mi'gmaq involve wh-movement
  - however, Mi'gmaq lack supporting weak crossover evidence, as other Algonquian languages

Weak crossover

- it has been observed that when a wh-word moved over a variable it is coindexed with, there the wh-word can not bind that variable
  - in 'Who$_1$ likes his$_1$ mother?' in (28a) 'who' can bind 'his' in 'his mother' since movement does not cross it
  - however, for 'Who$_1$ does his$*_1$ mother like?' in (28b), 'who' cannot bind 'his' in 'his mother' since moved over it

(28) a.



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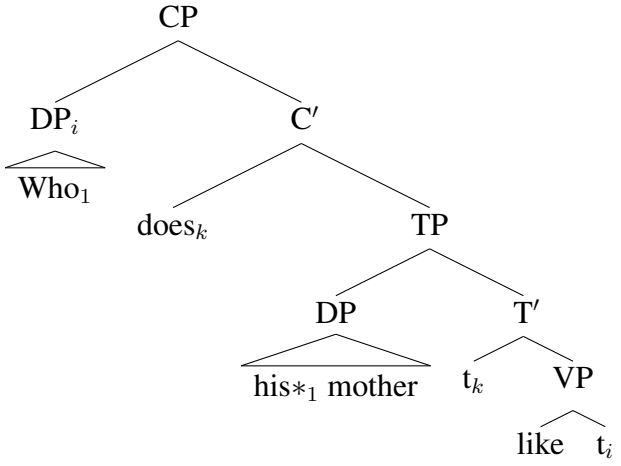

- in the non-crossover case in Mi'gmaq (29) is acceptable, parallel to the English translation

(29) a. wen gesal-atl ug-gwij-l
who like.3>4 3-mother-OBV
'Who$_1$ likes his$_1$ mother?'
b. wen uggwijl gesalatl

- as well when using direct morphology in (30) where WCO is expected to have occurred, 'who' cannot co-refer with 'his' in 'his mother'

(30) a. wen-n ug-gwij-l gesal-atl
who-OBV 3-mother-OBV like.3>4
'Who$_1$ does his$*_1$ mother like?'
b. wenn gesalatl uggwijl

- however, if using inverse morphology in the WCO case in (31), 'who' can co-refer with 'his' in 'his mother'

(31) a. wen ug-gwij-l gesal-tl
who 3-mother-OBV like.4>3
'Who$_1$ does his$_1$ mother like?' & 'Whose mother$_1$ likes him$_1$?

- this shows that when using inverse morphology there is no WCO within a clause
- more data is needed to verify WCO, i.e. WCO across clauses
- however, at this point it seems like a stronger case can be made in support of wh-movement than wh-clefting

5 Conclusion

- I have presented new data in Mi'gmaq which showed that:
  - Binding Condition C is active
  - Scope ambiguities exist in the interaction of numeral quantifiers & negation
  - Wh-movement can be argued to be present
- this data support an analysis which assumes that the syntactic representation of Mi'gmaq is underlyingly configurational
  - subjects seem to asymmetrically c-command objects
  - overt arguments seem to be base generated in argument positions
  - movement seem to occur, resulting in scope ambiguities and obeying island constraints
- while a Russell & Reinholtz-style architecture cannot account for the subject-object asymmetries, some form of articulated left-periphery is necessary to account for the full range of word order permutations

- the patterning of Mi'gmaq with Passamaquoddy is not surprising, and it suggests that Eastern Algonquian languages may pattern in a different manner than Central ones
  - this is suggested by the lack of Binding Condition C effects within clauses in Swampy Cree
  - however, more research is needed to make more concrete conclusions
- it is important to conduct further research to test more diagnostics for wh-movement as well as test quantifier scope in many more cases
- as well, most of my data has from from elicitation sessions, so using texts to find more word order information, as well as finding more examples of inverse & obviative forms would be helpful

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