

Against Non-configurationality in Mi'gmaq*

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1 Introduction

1.1 Non-configurationality?

The presence of hierarchical syntactic structure between overt arguments in Algonquian languages is an important topic of debate. At first glance, Mi'gmaq¹, an Eastern Algonquian language, seems to generally fit the following **characteristics of non-configurationality**: (i.e. Hale, 1983)

- **NPs are freely ordered**

- as any permutation of the word order of (1) is possible

- * particularly when overt arguments differ in person & number marking

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

- **Any NP can be omitted**

- a verb alone can be a complete utterance, as in (2)

- * salient discourse referents are required for overt arguments to be dropped

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

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¹Unless 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.

- **Discontinuous nominal expressions are allowed**

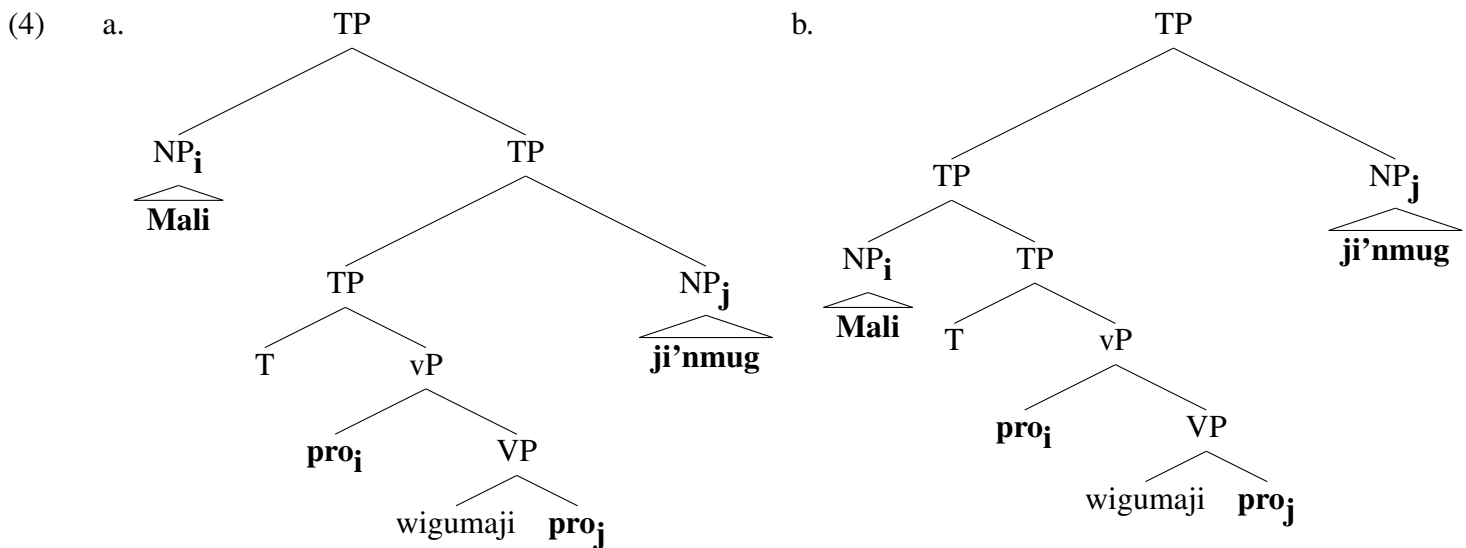
- ‘two men’ in (3a) is considered to be a Noun Phrase [NP] constituent
- ‘two’ & ‘men’ can appear in a surface order where they are not string adjacent, as in (3b)
 - * however, this is a constrained as functional material can precede lexical, but not vice-versa as in (3c), similar to Swampy Cree (Russell & Reinholtz, 1996) and Passamaquoddy (Bruening, 2001; Le Sourd, 2006)

- (3)
- 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**

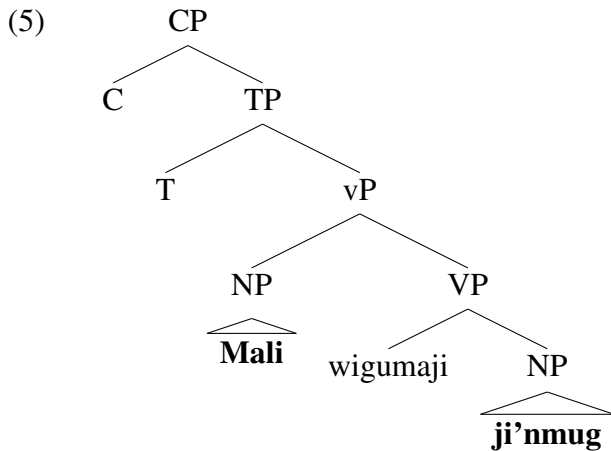
1.2 Competing Accounts

- there are two different approaches to account for these surface characteristics of non-configurationality:
 - assume that the surface freedom of overt arguments is represented in the underlying syntax, by positing that there is not necessarily a structural relationship between overt arguments
 - assume that there is always a hierarchical relationship between overt arguments in the syntax, but there is another source for surface word order variation (i.e. movement)
- following Jelinek’s (1984) Pronominal Argument Hypothesis, Baker (1996) argued that overt arguments in Mohawk are adjuncts and that there are null pronouns in argument positions in the syntax²
 - a Baker-style analysis of (1) is shown in (4), where both representations are predicted to be possible for an SVO word order
 - each possible word order has 2 possible representations, since nothing constrains which adjunct attaches higher than the other
 - * NOTE: I will generally focus on SVO word orders throughout for simplicity

²Russell & Reinholtz (1996) argued a similar point for Swampy Cree (a Central Algonquian language), but assumed that there was a structural asymmetry between pre- & post-verbal arguments. This does not seem to work for Mi’gmaq, due to the arguments presented below, although an articulated left-periphery similar to what they assume is a promising possibility to account for word order variations.



- on the other hand, Bruening (2001) argued that overt arguments are base generated in argument positions in Passamaquoddy
 - a Bruening-style analysis of (1) is shown in (5)
 - movement operations would further apply to account for surface word order
 - * important topic for further research



1.3 Mi'gmaq

- based on preliminary research on Mi'gmaq, I present the following new data which any analysis needs to account for:
 - Binding Condition C & the Weak Crossover Constraint (section 2), as well as the Superiority Constraint (section 3) are active
 - * subjects are structurally higher than objects (i.e. subjects asymmetrically c-command objects)
 - scope ambiguities (section 4) are present
 - * quantifiers undergo movement and reconstruction back to base generated positions

- these data points support a configurational analysis of Mi'gma syntax
- it is unclear how a non-configurational analysis can provide a satisfactory account

2 Binding

- binding is a semantic relationship involving the interpretation of variables, but this semantic relationship cannot occur unless certain syntactic conditions are met
 - binding relationships can occur when the binder c-commands the bindee,
- I will focus on Binding Condition C: **a full NP cannot be bound** (Chomsky 1981, summarized by Buring, 2005; 7)
 - a Condition C violation will show that an antecedent c-commands the NP
- as well as the Weak Crossover Constraint, which restricts the ability for a quantifier to bind a variable it moves over at Logical Form [LF]

2.1 Binding into an embedded clause

- a proper name NP (*Sa'n* 'John') in a matrix clause can bind a pronoun (*negm* 's/he') in the embedded clause in (6a)
- however when *Sa'n* is in an embedded clause it cannot be bound by *negm* in the matrix clause in (6b), as it results in a Condition C violation

(6) *Context: I went over to John's house. John talked about you. Later I tell you:*

- a. **Sa'n** teltas-it (**negm**) gesal-isg
John think-3 (3) like-3>2
 'John₁ thinks he₁ likes you.' (= 'John₁ thinks John₁ likes you')
- b. (**negm**) teltas-it **Sa'n** gesal-isg
3 think-3 **John** like-3>2
 'He₁ thinks John*₁ likes you.' (= *'John₁ thinks John₁ likes you')

- a quantifier (*te's 'l'pa'tuj* 'every boy') in the matrix clause can bind a the possessor of a noun (*uggwijnl* 'her/his mother') in the embedded clause (7a)
- however when *te's 'l'pa'tuj* is in an embedded clause, it cannot bind *uggwijnl* in the matrix clause (7b)
 - if quantifiers raising occurs at LF, 'every boy' should c-command the pronoun in both (7a) & (7b), however the ungrammaticality of (7b) shows that the Weak Crossover Constraint is violated

- (7) a. *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 'I'pa'tuj 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.' (= 'John₁ thinks that John₁'s mother likes you, Joe₂ thinks that Joe₂'s mother likes you,...')

- b. *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 'I'pa'tuj** gesal-isg
3-mother-OBV think-3 **every boy** like-3>2

'**His**₁ mother thinks **every boy***₁ likes you.' (= '*John₁'s mother thinks that John₁ likes you, Joe₂'s mother thinks that Joe₂ likes you,...')

- this data shows that both Condition C & the Weak Crossover are active in Mi'gmaq
- however, both non-configurational & configurational analyses account for across clausal data
 - but binding within a clause will distinguish between them

2.2 Binding within a clause

- regardless of the context, coreference is not possible between two 3rd person arguments
- **obviation** seems to play a role in disjoint reference (i.e. Grafstein, 1989)
 - obviation is the tracking of 3rd persons in a discourse
 - the most salient 3rd person is morphologically unmarked (i.e. Mali 'Mary' in (8))
 - all other 3rd persons are morphologically marked with an obviate suffix (i.e. Lance-**al** in (8)), called 4th person
- the contrast between (8a) & (8b) is an example of the **direct-inverse** verbal morphology
 - when both arguments are 3rd persons, in direct forms the object is obviative (8a) & in inverse forms the subject is obviative

- (8) a. DIRECT:

Mali gesal-atl Lance-**al**
 Mary like-3>4 Lance-**OBV**
 'Mary likes **Lance**'

- b. INVERSE:

Lance-**al** gesal-tl Mali
 Lance-**OBV** like-4>3 Mary
 '**Lance** is liked by Mary'

- using possessives, we can see that a possessor in a possessive NP can co-refer with a nominal in the same clause, as in (9a)
 - the proper name ‘John’ is interpreted as a constituent with the possessed noun *uggwijnl* ‘her/his mother’
- however, when the possessor is the object, it cannot be bound by a pronoun in subject position, which I take to be a Condition C violation

(9) a. *Context: John’s mother showed me the new car she will give John. Later I tell you:*

[**Sa’n** ug-gwij-l] gesal-tl (**negm**)

John 3-mother-OBV love-4>3 (**3**)

‘**John**₁’s mother loves **him**₁.’ (=‘John₁’s mother loves John₁’)

b. *Context: John showed me the new car he will give his mother. Later I tell you:*

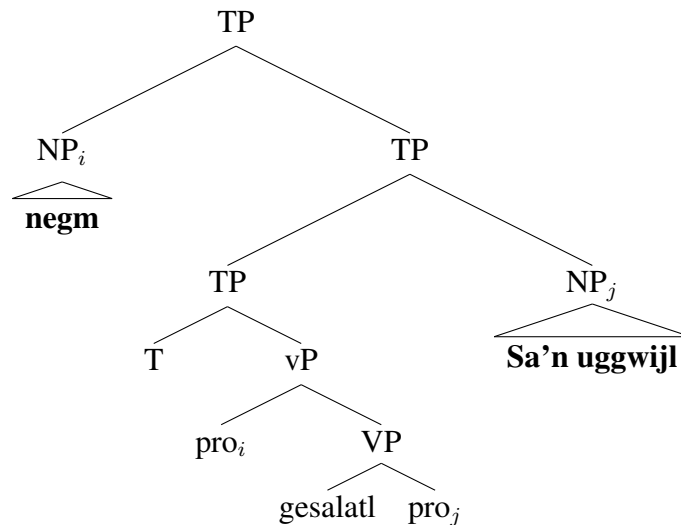
(**negm**) gesal-atl [**Sa’n** ug-gwij-l]

(**3**) love-3>4 **John** 3-mother-OBV

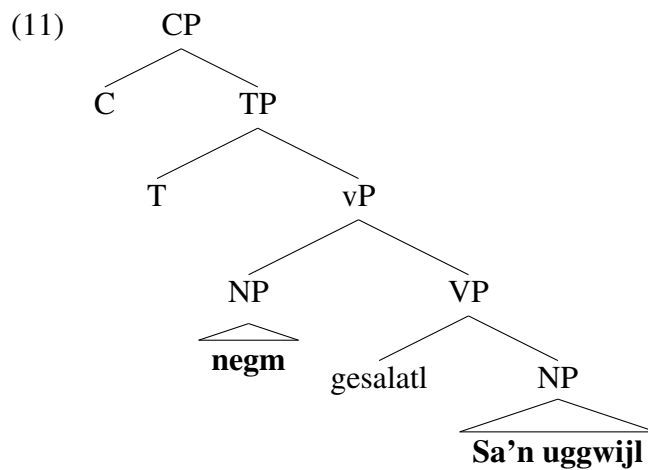
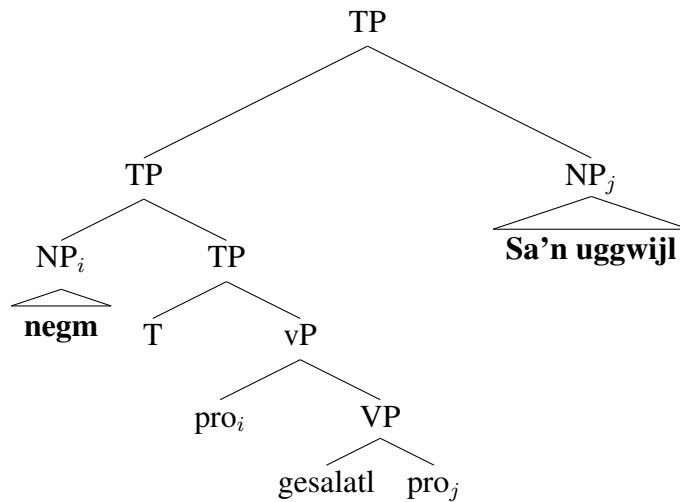
‘**He**₁ loves **John***₁’s mother.’ (=‘John₁ loves John₁’s mother’)

- a non-configurational representation would predict both structures in (10) are possible for (9b), and it is clear that (10b) would not predict a Condition C violation since *Sa’n uggwijnl* is not c-commanded
- a configurational analysis of (9b) in (11) straightforwardly accounts for the Condition C violation, since *Sa’n uggwijnl* is c-commanded by *negm*

(10) a.



b.



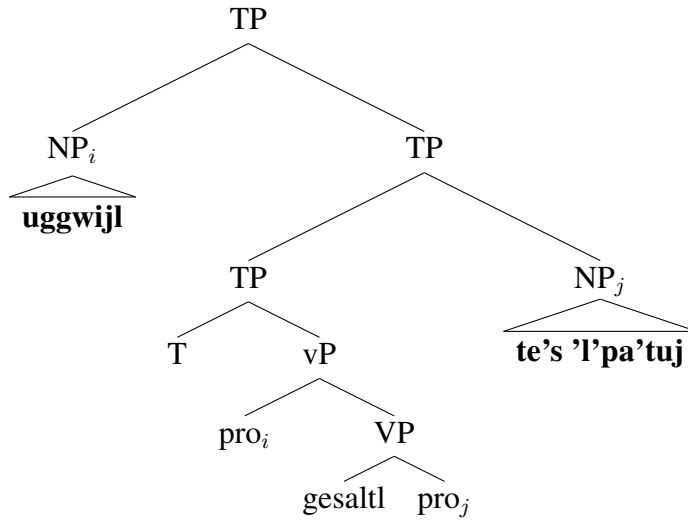
- looking at quantifiers, the subject ‘every boy’ can bind the possessor *uggwijn* in the object NP in (12a)
- however, when ‘every boy’ is the object, it cannot bind the possessor in the subject NP in (12b), due to the Weak Crossover Constraint

- (12) a. *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:*
te’s ’l’pa’tuj gesal-atl ug-gwij-l
every boy love-3>4 3-mother-OBV
 ‘**Every boy**₁ loves **his**₁ mother.’ (=‘John₁ loves John₁’s mother, Joe₂ loves Joe₂’s mother,...’)
- b. *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:*
ug-gwij-l gesal-tl te’s ’l’pa’tuj
3-mother-OBV love-4>3 every boy
 ‘**His**₁ mother loves **every boy**_{*1}.’ (=‘John₁’s mother loves John₁, Joe₂’s mother loves Joe₂,...’)

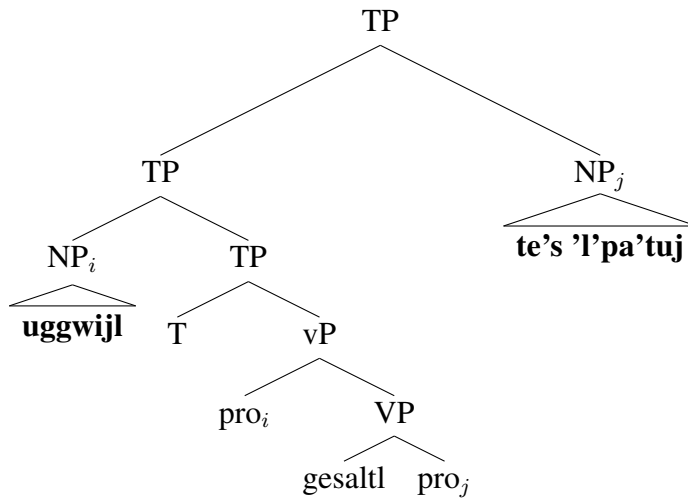
- under a non-configurational account, both representations in (13) are predicted for (12b), however (13b) makes incorrectly predicts that ‘every boy’ can bind ‘his’

- however, configurational account predicts that binding is not possible as the Weak Crossover Constraint will apply in (14)

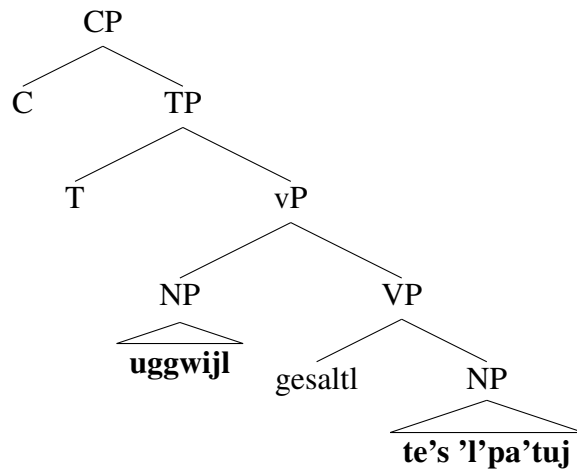
(13) a.



b.



(14)



- both Binding Condition C & the Weak Crossover Constraint apply in Mi'gmaq within clauses
 - this shows evidence that subjects are structurally higher & thus asymmetrically c-command objects

- a non-configurational analysis arguments as adjuncts cannot account for subject-object asymmetries
- however these asymmetries are predicted in a configurational analysis

3 Superiority Condition

- if an operation, such as *wh*-movement can apply to two separate constituents, it cannot apply to the one which is structurally lower (Chomsky, 1973)
 - in languages restricted to a single instance of *wh*-movement, it is restricted to the structurally higher *wh*-phrase if two *wh*-phrases are present, as in English in (15)
 - in languages with multiple *wh*-movement, the structurally highest *wh*-phrase must precede structurally lower ones after *wh*-movement (Pesetsky, 2000), as in Bulgarian in (16)

(15) SUPERIORITY IN ENGLISH

- Who**_{*i*} *t*_{*i*} bought **what**?
- ***What**_{*i*} **who** bought *t*_{*i*}?

(16) SUPERIORITY IN BULGARIAN, SINGLE CLAUSE (Boskovic, 2002: 354; *movement added*)

- koj**_{*i*} **kogo**_{*j*} *t*_{*i*} obica *t*_{*j*}?
who who(m) loves
'**Who** loves **who(m)**?'
 - ***kogo**_{*j*} **koj**_{*i*} *t*_{*i*} obica *t*_{*j*}?
who(m) who loves
intended: **Who(m)** does **who** love?

- in interrogatives with a single *wh*-phrase in Mi'gmaq, the *wh*-phrase must appear pre-verbal, or they are interpreted as indefinite pronouns
 - *wen* 'who' in (17) & *goqwei* 'what' in (18) must appear before the verb *pegisitoq* to be interpreted as *wh*-phrases, as in (17a) & (18a) respectively
 - (17) & (18) are both transitive utterances with an animate and an inanimate argument [VTI], the animate argument must be the subject, and inverse constructions are not attested

(17) *goqwei*

- goqwei** Lance *pegisitoq*?
what Lance bring-3>0.PST
'**What** is Lance bringing?'
- Lance *pegisitoq* **goqwei**?
Lance bring-3>0.PST **what**
'Is Lance bringing **any/something**?' & *'**What** is Lance bringing?'

(18) *wen*

- wen** *pegisitoq* wenju'su'n?
who bring-3>0.PST apple
'**Who** is bringing an apple?'
- wenju'su'n *pegisitoq* **wen**?
apple bring-3>0.PST **who**
'Is **some/anyone** bringing an apple?' & *'**Who** is bringing an apple?'

- in interrogatives with multiple *wh*-phrases in Mi'gmaq, the structurally higher *wh*-phrase must precede the lower *wh*-phrase

- in (19), the animate *wh*-phrase must precede the inanimate *wh*-phrase, as only (19a) but not (19b) is grammatical
- a pair-list response is triggered in (19a)

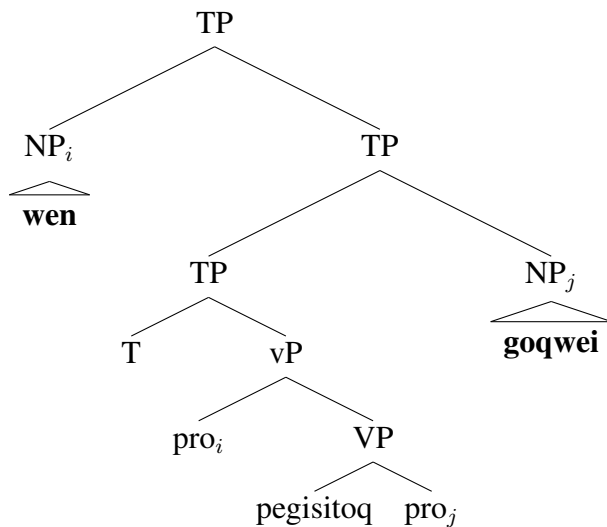
(19) VTI, MULTIPLE *wh*-PHRASES

Context: You are invited to a pot-luck party. You ask the organizer:

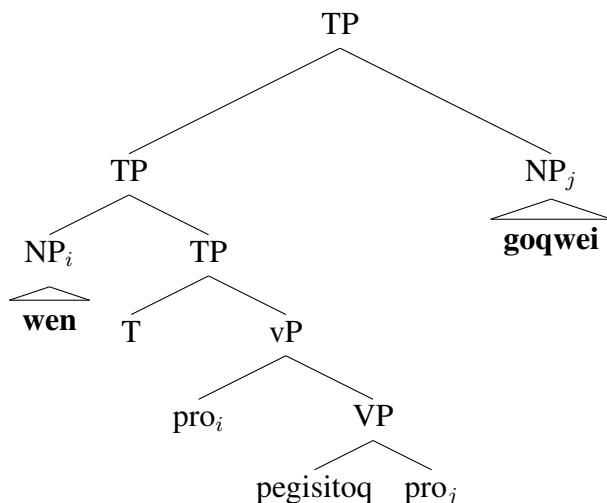
- wen goqwei** pegisitoq?
who what bring-3>0.PST
 'Who is bringing what?' [triggers a pair-list response]
- ***goqwei wen** pegisitoq?
what who bring-3>0.PST
 intended: 'Who is bringing what?' or 'What did who bring?'

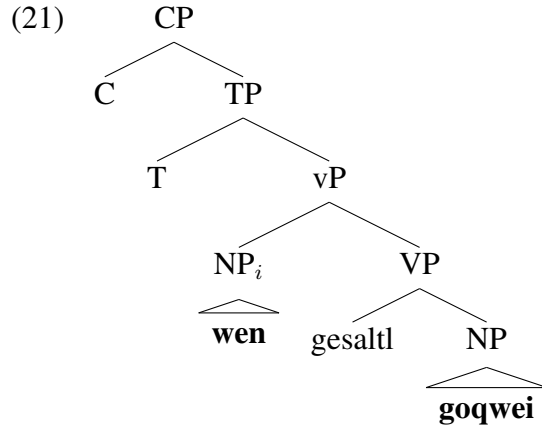
- a non-configurational analysis predicts that either *wh*-phrase can be structurally higher, as in (20), so in addition to (19a), (19b) is incorrectly predicted to be possible
- however, under a configurational analysis in (21), (19a) is correctly predicted to be possible, while (19b) would be a violation of the Superiority Condition

(20) a.



b.





- D-linked wh-phrases can be a confounding factor with multiple wh-movement constructions, i.e. Pesetsky (2000)
 - one possible way to rule out this factor is to use a context in which each wh-phrase can only refer to a single referent, so once the referent for the first wh-phrase is determined, the referent for the other wh-phrase is set (Martina Wiltschko, p.c.)
 - * (22) is a transitive construction with two animate arguments [VTAs] and superiority data is similar to VTIs for these verbs as well
 - * since both *wh*-phrases correspond to 3rd persons, with the second one is marked as obviative (4th person) & corresponds to the object

(22) VTA, MULTIPLE *wh*-PHRASES

Context: You are at an invitation only party and 2 people walk in together who look out of place. You ask your friend:

wen wen-n pegisulasn
who who-OBV bring.3>4.PST

‘Who brought whom?’ [triggers a single pair response]

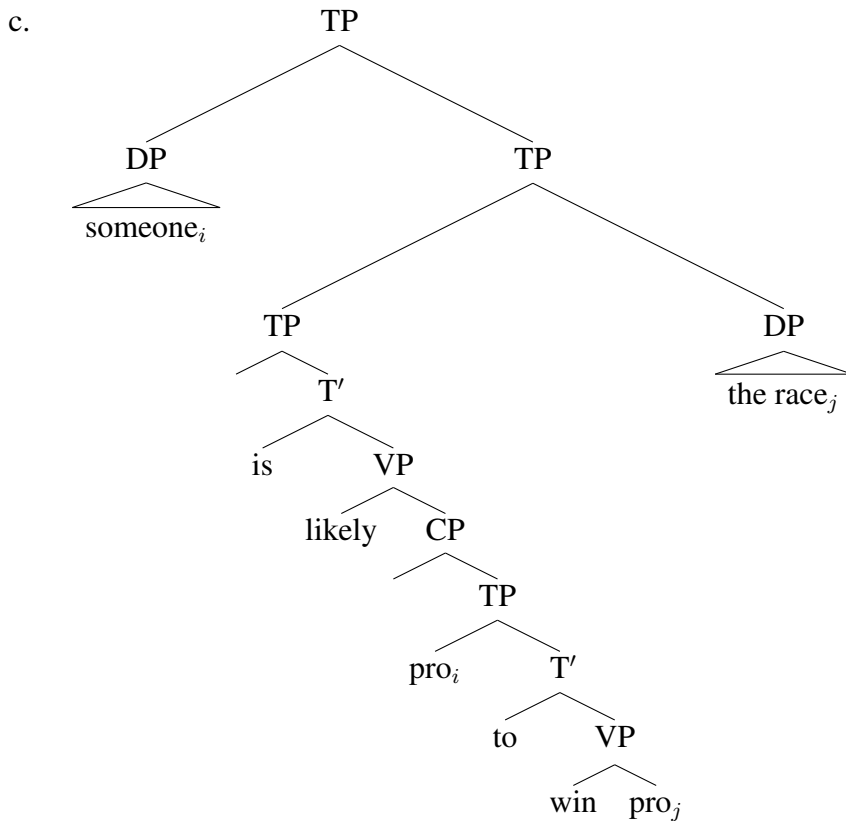
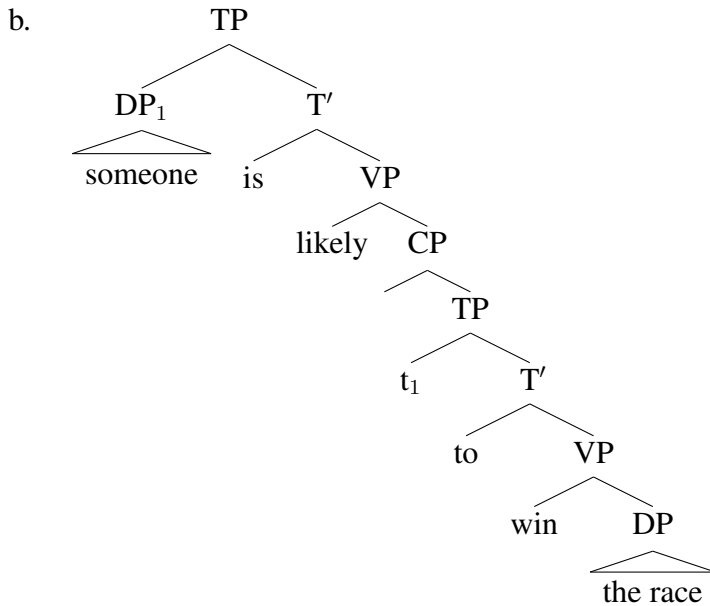
- Superiority effects show further evidence that subjects are structurally higher & thus asymmetrically c-command objects
- this can be accounted for only through a configurational account

4 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 (23a), where difference in interpretations are between its surface form & base generated position (possible via reconstruction)

- a typical syntactic representation is shown in (23b), where pre- & post-movement positions show both scope possibilities
- a representation with both arguments as a sentential adjunct is shown in (23c), where there is only scope possibility (someone>likely), since there is a null argument in argument positions and there is no possibility for reconstruction

(23) a. 'Someone is likely to win the race' (Fox, 2009)
 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)



- in Mi'gmaq in (24), 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*

- (24) *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 (25a) & (25b), 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'

- (25) *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 gesal-aqig **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 (24), and undergoes movement into their surface positions in (25a) & (25b)

– 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

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

- NOTE: a potential analysis of (25a), is that 'tapusijig' is a verb, and 'tapusijig ji'nmug' is in a cleft construction in (25a)

– if this is the case, this explains the wide scope interpretation, but it is unclear how the narrow scope interpretation arises

– ignoring this, it does seem that numbers can be verbal in Swampy Cree (Kevin Russell, p.c.) & Ojibwe (Glyne Piggot, p.c.) and they can take verbal marking in Mi'gmaq

* however, when numbers stand alone, they optionally can appear with an existential verb, without an effect in truth conditions, in (26)

* this suggests that the existential verb is always present but optionally dropped

- regardless, further research is needed into the verbal nature of numbers in Mi'gmaq

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

5 Conclusion

- I have presented new data in Mi'gmaq which showed that:
 - subjects asymmetrically c-command objects
 - * Binding evidence shows that Binding Condition C and the Weak Crossover Constraint are active
 - * Multiple wh-questions show that the Superiority Condition is respected
 - quantifiers can undergo movement and reconstruction
 - * scope ambiguities are present in utterances where a quantifier scopes over sentential negation
- this data is accounted for straightforwardly by a configurational account of Mi'gmaq syntax

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