Wh-movement in Mi'gmaq[*]

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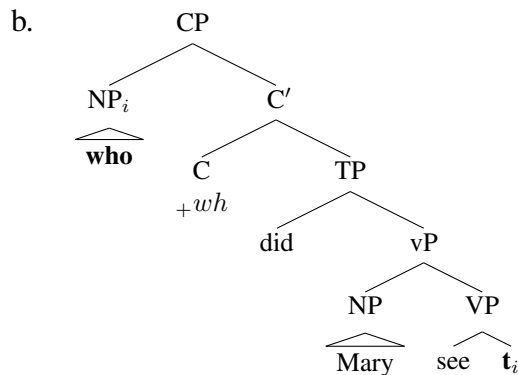CLA 2013, University of Victoria, June 2nd, 2013

1 Introduction

1.1 *Wh*-questions in Algonquian languages

- Algonquian languages have been argued to create *wh*-questions through either:

  1. *wh*-movement, e.g., Passamaquoddy (Bruening, 2001) and Western Naskapi (Brittain, 2001)

  2. *wh*-clefting, e.g., Plains Cree (Wolfart, 1973) and (Blain, 1997), Ojibwe (Johns, 1982), and Swampy Cree (Russell and Reinholtz, 1995)

- typical *wh*-movement involves:

  - C^0 with an uninterpretable *wh* feature which acts as a probe
  - when the probe finds its goal, a *wh*-word with a *wh* feature, it agrees with it
  - the *wh* feature on C^0 has an EPP feature and the goal moves to Spec-CP
    * e.g., the utterance in (1a) can be analyzed as in (1b)

(1) ENGLISH

    a.   Who did Mary see?

    b.

```
                    CP
             _____/_____
          NP_i            C'
          /\         ____/\____
        who         C           TP
                  +wh      ____/\____
                          did        vP
                                 ___/\___
                               NP        VP
                               /\       /  \
                            Mary      see   t_i
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  – Standard diagnostics for *wh*-movement are:

    ∗ Subjacency effects

    ∗ Constraints on extraction domains (CED) and Island constraints

    ∗ Weak crossover (WCO) effects

- Blain (1997) argues that *wh*-questions in Plains Cree, a Central Algonquian languages, are *wh*-cleft constructions

  – e.g., the *wh*-questions, such as (2a)[1][2], are formed as in (2b)

    (2)   PLAINS CREE

       a. **awîna-wa** Mary kâ-wâpam-â-t   (Blain, 1997, 1)
           who-OBV Mary REL-see-CNJT-DIR-3
           '**Who** did Mary see?'

       b. **awîna-wa**$_i$ t_i [**Op**$_j$ [kâ-kî-wâpam-at t_j]]

  – *awînawa* 'who' is base generated in a clefted nominal clause structure and undergoes movement to the left-edge of this clause

  – in the complement clause, a null operator is base generated in the argument position associated with the *wh*-word

  – the null operator undergoes movement to the specifier of the CP of the complement clause in order to licence the *wh*-construction

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[1]Abbreviations: 0 = inanimate third person singular, 1 = first person, 3 = animate third person singular proximate, 4 = animate third person singular obviative, textitan = animate, COMP = complementizer, CNJT = conjunct, CONJ = conjunction, DIR = direct, NEG = negation, OBV = obviative, PL = plural, POSS = possessive, PRON = pronoun, *pst* = past, *q* = question particle, VTI = transitive verb with an animate subject and inanimate object.

[2]Unless noted, all examples are primary data collected by the author in consultation with a group of native speakers of the Listuguj dialect of Mi'gmaq, located in Listuguj, Quebec, Canada.

- Blain (1997) argues that *wh*-clefts have the following characteristics
    * Subjacency effects
    * Constraints on extraction domains (CED) and Island constraints
    * absence of multiple *wh*-questions
    * absence of weak crossover (WCO) effects

- Summary:

1. both analyses predict subjacency, CED, and island effects
2. they differ on multiple *wh*-questions:
    - impossible in *wh*-cleft languages
    - possible in *wh*-movement languages
3. they differ on WCO:
    - absent in *wh*-cleft languages
    - (typically) present in *wh*-movement languages

1.2 Proposal

Wh-questions in Mi'gmaq are created via *wh*-movement

- evidence suggests that Mi'gmaq, an Eastern Algonquian language, patterns with *wh*-movement languages

- in particular, Mi'gmaq patterns with Western Naskapi in having multiple *wh*-questions and displaying superiority effects[3]

- Mi'gmaq is unique in that it requires multiple *wh*-movement in multiple *wh*-questions, as *wh*-phrases cannot be left in-situ

- superiority effects supports an analysis where *wh*-phrases, are base generated in canonical argument positions and involve multiple instances *wh*-movement

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[3](Bruening, 2001, 157-9) argues that multiple *wh*-questions are not permitted in Passamaquoddy nor are there superiority effects.

1.3 Outline

section 2: Shared diagnostics for movement

- Mi'gmaq appears to display subjacency, CED, and Island effects

section 3: Multiple *wh*-questions and superiority

- Mi'gmaq appears to display multiple *wh*-questions and superiority effects

section 4: Weak Crossover

- But no WCO effects observed in Mi'gmaq

section 5: Preliminary account

- single and multiple *wh*-questions
- issues and an alternate account

section 6: Conclusions & Future research

2 Shared diagnostics for movement

- In this section I show that there is evidence to support an analysis of Mi'gmaq *wh*-questions involving movement

2.1 Subjacency

- in English *wh*-words are subject to successive cyclic movement

    - in (3a) there is *wh*-movement is hypothesized to occur cyclically to the matrix Spec-CP with a stop in the embedded Spec-CP

    - this receives support as another instance of *wh*-movement to the embedded Spec-CP, as with *who* in (3b), is ungrammatical[4]

(3)   a.   **What**$_i$ does Mary think [$_{CP}$ **t**$_i$ Lance bought **t**$_i$]?
      b.   *What$_i$ does Mary think [$_{CP}$ t$_i$ **who**$_j$ **t**$_j$ bought t$_i$]?

- the appearance of *wh*-words in Mi'gmaq patterns similarly

    - in (4a) *goqwei* 'what' is at the left edge of the matrix clause and associated with the object argument of the embedded verb

    - however a second *wh*-phrase associated with the embedded subject cannot occur at the left-edge of the embedded clause, as with *wen* 'who' in (4b)

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[4]Leaving the echo-question interpretation aside.

- nor can a second *wh*-phrase associated with the embedded clause appear in the matrix clause, as in (4c)

(4) a. **goqwei** Mali telta's-it [Lance pegwatel-g-p]?
        what   Mary think-3 [Lance buy-3>0-PST]
        '**What** does Mary think Lance bought?'

   b. ***goqwei** Mali telta's-it [**wen** pegwatel-g-p]?
        what   Mary think-3 [**who** buy-3>0-PST]
        intended:'**What** does Mary think **who** bought?'

   c. ***goqwei wen** Mali telta's-it [pegwatel-g-p]?
        what   who Mary think-3 [buy-3>0-PST]
        intended:'**What** does Mary think **who** is buying?'

- another argument for subjacency is the Complex NP Constraint Ross (1967)

- *wh*-movement from within a complex NP is ungrammatical in English since it occurs through 2 bounding nodes, i.e., D/NP and CP

    - in (5a) the noun 'boy' has the CP complement'who saw Lance'

    - however *wh*-movement from within the CP complement to the matrix Spec-CP is ungrammatical, as in (5b)

(5) a. [$_{DP}$**The boy [**$_{CP}$ **who saw Lance]]** is walking around
   b. **Who**$_i$ did [$_{DP}$ the boy [$_{CP}$ who saw **t**$_i$]] is walking around

- a similar kind of restriction with *wh*-words in Mi'gmaq also seems to be present

    - the utterance in (6a) has a noun *l'patuj* 'boy' that has a CP complement, *ta'n nemiapn Lanceal* 'who saw Lance'

    - however a *wh*-word does not seem to be able to associate with a verb in complement clause, as shown in (6b)

(6) a. **[l'patuj [ta'n   nemia-pn   Lance-al]]**   ala's-it
        [boy   [COMP see-3>4.PST Lance-OBV]] walk.around-3
        '**The boy [who saw Lance]** is walking around'

   b. ***wen-n**   [l'patuj [ta'n nemia-pn]]   ala's-it?
        who-OBV [boy   [that see-3>4.PST]] walk.around-3
        intended: '**Who** did [the boy [that saw]] is walking around?'

2.2   Constraints on extraction domains and Island constraints

- *wh*-questions in Mi'gmaq also seem to obey typical island constraints

1. Coordinate Structures Constraint (Ross, 1967)

    - it is not possible to have *wh*-movement out of only one conjunct in a coordinate structure
        - based on the English utterance in (7a), *wh*-movement cannot occur solely from either the first, in (7b), or second conjunct, in (7c)

    (7)   a.   You ate the apple and bread.
           b.   ***What**$_i$ did you eat **t**$_i$ and bread?
           c.   ***What**$_i$ did you eat apple and **t**$_i$?

    - a Mi'gmaq utterance with two NPs coordinated by *aq* 'and', is shown in (8a)
        - both (8b) & (8c) show that a *wh*-word cannot associate solely with either of these conjuncts

    (8)   a.   malqgutm-u'tp **wenju'su'n** aq   **pipnaqan**?
                 eat-2>0.PST   **apple**   CONJ **bread**
                 'You ate an/the apple & bread.'

           b.   ***goqwei** malqgutm-u'sp aq   **pipnaqan**?
                 what eat-2>0.PST   CONJ **bread**
                 intended: *'What did you eat and bread?'

           c.   ***goqwei** malqgutm-u'sp **wenju'su'n** aq?
                 what eat-2>0.PST   **apple**   CONJ
                 intended: *'What did you eat apple and ?'

2. Left-branch Condition (Ross, 1967)

    - *wh*-movement is not allowed from the left-branch of a constituent
        - based on the English utterance with the possessive DP *Lance's book* in (9a), *wh*-movement is not possible from the possessor in (9b)
        - the question is grammatical if the possessed NP undergoes movement along with the *wh*-word, as in (9c)

    (9)   a.   John bought [**Lance's book**].
           b.   ***Who(se)**$_i$ did Lance buy [**t**$_i$ book]?
           c.   [**Whose book**] did Lance buy **t**$_i$?

    - a Mi'gmq utterance with a possessed NP *Lance-ewei wi'gatign* 'Lance's book' is shown in (10a)

- a *wh*-word cannot associate with the NP *wi'gatign* from the left-edge of the matrix clause, as shown with *wen(-ewei)* 'who(se)' in (10b)
- however a *wh*-word can associate with *wi'gatign* if it appears alongside at the left-edge, as shown in (10c)

(10)   LEFT-BRANCH CONDITION

     a.   Sa'n pegwatel-g-p **[Lance-ewei wi'gatign]**
         John buy-3>0-PST **[Lance-POSS book]**
         'John bought **Lance's book**'

     b.   *__Wen(-ewei)__ Sa'n pegwatel-g-'s **[wi'gatign]**?
         who(-POSS) John buy-3>0.Q   **[book]**
         intended: *'**Whose** did John buy **book**?'

     c.   **[Wen-ewei wi'gatign]** Sa'n pegwatel-g-'s?
         [who-POSS book]   John buy-3>0-Q
         '**[Whose book]** did John buy?'

3. Adjunct Condition

- extraction of a *wh*-phrase is not possible from an adjunct clause
  - the English utterance in (11a) has the adjunct clause *before he met Lance*
  - *wh*-movement from this adjunct to the main clause is ungrammatical, as shown in (11b)

(11)   a.   John left **[before he met Lance]**.
        b.   *__Who__$_i$ did John leave [before he met **t**$_i$]?

- the Mi'gmaq utterance in (12a) has the adjunct clause *ge's mu weltesguagupn Lancel* 'before I met Lance'
  - association of a *wh*-word with the verb in the adjunct clause is not possible, as shown with *wenn* in (12b)

(12)   a.   Sa'n maja's-i-p   **[ge's mu weltesgu-ag-u-pn Lance-l]**
           John leave-3-PST **[while NEG meet-3>4-NEG.PST Lance-OBV]**
           'John left **[before he met Lance]**'

     b.   *__wen-n__   Sa'n maja's-i-p   **[ge's mu weltesgu-ag-u-pn]**
           who-OBV John leave-3-PST **[while NEG meet-3>4-NEG.PST]**
           intended: '**Who** did John leave **before he met**?'

- regardless of the analysis, the grammaticality judgements in the previous Mi'gmaq examples can be accounted for by assuming that CED and island constraints apply

- there seems to be evidence for some kind of movement in Mi'gmaq *wh*-questions
  - the question is whether it is *wh*- or null operator movement
  - the next section will present evidence that it is *wh*-movement

3 Multiple *wh*-questions and superiority

- in this section I will show that Mi'gmaw has multiple *wh*-questions and display superiority effects

- Blain (1997) argues that multiple *wh*-questions are only possible languages where *wh*-phrases are base generated in argument positions
  - following Calabrese (1984), she argues that absence of multiple *wh*-questions is a diagnostic for a *wh*-clefting language
  - Plains Cree is shown to lack multiple *wh*-questions, as shown in (13)

(13)   PLAINS CREE (Blain, 1997, 90)

    a. ***awîna** ê-itwê-t   **kîkwây**?
        who   REL-say.so-CNJT.3 **what**
        intended:'**Who** said **what**?

    b. ***awîna** ka-pîkiskwât-â-t   **awîna-wa**?
        who   COMP-speak.to.soneone-DIR-CNJT.3 **who-OBV**
        intended:'**Who** spoke to **whom**?

- multiple *wh*-questions are acceptable in Mi'gmaq and obligatorily trigger a pair-list response
  - both *wh*-words must precede the verb as in (15a)
  - when one *wh*-word precedes the verb, as in (15b), a multiple *wh*-question interpretation is not possible[5]

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[5]Note that *wh*-words are interpreted as *wh*-interogatives when they are pre-verbal, but as *wh*-indefinites when they are post-verbal. *goqwei* in (14) can only be interpreted as a *wh*-phrase in (14a) and a *wh*-indefinite in (14b)

(14)   a. **goqwei** Lance pegwatel-g?
        what   Lance buy-3>0
        '**What** is Lance buying?'

      b. Lance pegwatel-g **goqwei**?
        Lance buy-3>0   **thing**
        'Is Lance buying **anything**?'

(15)   *Context: I tell you that I went to a pot-luck yesterday. You ask me:*
        a.   **wen goqwei** pegisi-toq-s'p?
              who what   bring-3>0-PST
              '**Who** brought **what**?' [triggers a pair-list response]

        b.   **wen** pegisi-toq-s'p **goqwei**?
              who bring-3>0-PST **what**
              *'**Who** brought **what**?'; '**Who** brought **anything/something**?'

- importantly, *wen* must precede *goqwei* as in (15a), below as (16a)

- *goqwei* preceding *wen* in (16b) is judged ungrammatical

    – verbal inflection specifies that the animate argument, *wen*, is the subject and the
      inanimate argument, *goqwei*, is the object

(16)   *Context: Looking at the table of food at a pot-luck party, you ask the organizer:*
        a.   **wen goqwei** pegisi-toq-s'p?
              who what   bring-3>0.PST
              '**Who** brought **what**?' [triggers a pair-list response]

        b.   *****goqwei wen** pegisi-toq-os?
              what   who bring-3>0-PST
              intended: '**Who** brought **what**?' or '**What** did **who** buy?'

- this strict word order appears to be a superiority effect (Chomsky, 1973)

    – the movement of potential targets is restricted to the one which is structurally highest,
      if two separate targets are available to undergo a movement operation

- in languages which do not allow multiple *wh*-movement, only the structurally higher *wh*-
  phrase can undergo movement, and the other *wh*-phrase must stay in-situ

    – in English, only *who* can move, as in (17a), but not *what*, as in (17b)

(17)   SUPERIORITY IN ENGLISH
        a.   **Who**$_i$ t$_i$ bought **what**?'
        b.   *****What**$_i$ **who** bought t$_i$?'

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- in languages which allow multiple *wh*-movement, the c-command order of *wh*-phrases prior to movement is rigidly maintained post movement

    – in Bulgarian *koj* 'who' must precede *kogo* 'who(m)' as in (18b)

    – the reverse ordering in (18b) is reported as being ungrammatical

(18)   SUPERIORITY IN BULGARIAN (Boskovic, 2002: 354; *traces added*)

    a.   **koj**$_i$ **kogo**$_j$ t$_i$ obica t$_j$?
          who who(m)   loves
          '**Who** loves **who(m)**?'

    b.   *__kogo__$_j$ **koj**$_i$ t$_i$ obica t$_j$?
          who(m) who   loves
          intended: **Who(m)** does **who** love?

- the presence of multiple *wh*-questions presents evidence against a *wh*-cleft account

- if we assume a *wh*-movement account, Mi'gmaq seems to pattern with multiple *wh*-movement languages, such as Bulgarian

    – the ambiguity of *wh*-words as *wh*-indefinites is another parallel with multiple *wh*-movement languages

    – this suggests a potential analysis where *wh*-words lack quantificational force and need to be licensed through movement Cheng (1991)

4 Weak Crossover

- in this section I will show that Mi'gmaq appears to lack WCO effects and that this does not discount a *wh*-movement analysis

- WCO has been formulated in many ways, but the generalization is that traces of *wh*-phrases can only have anaphoric relations with pronouns they c-command

    – co-reference between the *wh*-word and the possessor of the object NP is possible in English when the subject *wh*-phrase has undergone *wh*-movement, as shown in (19b)

        * the co-reference possibilities are not effected by *wh*-movement as they are parallel to the corresponding declarative in (19a)

    (19)   NON-WCO
            a.   **John**$_1$ loves **his**$_{1/2}$ mother
            b.   **Who**$_{1i}$ **t**$_i$ loves **his**$_{1/2}$ mother?

- but co-reference between the *wh*-word and the possessor of the subject NP is not possible when the object *wh*-phrase has undergone *wh*-movement over the subject, as shown in (20b)

  * crucially the co-reference possibilities are restricted by *wh*-movement, as the corresponding declarative in (20a) has no co-reference restriction

  (20)   WCO
        a. **His**$_{1/2}$ mother loves **John**$_1$
        b. **Who**$_{1i}$ does **his**$_{*1/2}$ mother love **t**$_i$?

- in similar configurations, Mi'gmaq, as other Algonquian languages, does not show WCO effects

  - these effects do not arise when the verb is inflected with direct or inverse morphology[6]

  - in the direct non-WCO example when the subject is a *wh*-phrase in (22b), co-reference between the *wh*-word *wen* and the possessor of the object NP is possible

    * note that the co-reference possibilities have not changed from the corresponding declarative (22a)

  (22)   DIRECT, NON-WCO

        a. **Lance**$_1$ gesal-atl **ug**$_{1/2}$-gwij-l
            Lance love-3>4 **3**-mother-OBV
            '**Lance**$_1$ loves **his**$_{1/2}$ mother?'

        b. **wen**$_1$ gesal-atl **ug**$_{1/2}$-gwij-l
            who love-3>4 **3**-mother-OBV
            '**Who**$_1$ loves **her/his**$_{1/2}$ mother?'

- in the direct WCO example when the object NP is a *wh*-phrase in (23b), co-reference is not possible between the *wh*-word *wen* and the possessor of the subject NP

  - however, note that the co-reference possibilities have not changed from the corresponding declarative in (23a) either

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[6]Direct morphology is where the subject outranks the object on the participant hierarchy typically posited for Algonquian languages in (21). Inverse morphology is the reverse, where the object outranks the subject on the participant hierarchy

(21)   PROPOSED PARTICIPANT HIERARCHY IN ALGONQUIAN LANGUAGES
      | 2nd,1st » 3rd » 4th » 0 |

(23) DIRECT, WCO

 a. **ug**$_{*1/2}$-gwij-l gesal-atl **Lance-al**$_1$
  3-mother-OBV love-3>4 **Lance-OBV**
  'Her/his$_{*1/2}$ mother loves **Lance**$_1$?'

 b. **wen-n**$_1$ **ug**$_{*1/2}$-gwij-l gesal-atl
  who-OBV 3-mother-OBV love-3>4
  'Who$_1$ does her/his$_{*1/2}$ mother love?'

- note there is obviative marking on the *wh*-word *wen**n***, which forces disjoint reference from the 3rd person possessor (Grafstein, 1985)
  - ∗ in Mi'gmaq, as in other Algonquian languages, the most topical 3rd person in a discourse is unmarked, while all other 3rd persons are marked with obviative morphology (and often referred to as 4th person)
  - ∗ so an obviative marking obligatorily forces disjoint reference with a proximate 3rd person
- so the disjoint reference effect cannot be attributed to the potential movement of a *wh*-word

- for the inverse cases, the only possible examples are with the possessive obviative NP as the subject and the proximate NP as the object

  - when the object NP is a *wh*-phrase as in (24b), co-reference between the *wh*-word and the possessor of the subject NP is obligatory
    - ∗ again, note that the co-reference possibilities have not changed from the corresponding declarative
    - ∗ thus there is no potential effect attributable to the *wh*-word

  (24) INVERSE, WCO

   a. **Lance**$_1$ **ug**$_{1/*2}$-gwij-l gesal-tl
    Lance 3-mother-OBV love-4>3
    '**His**$_{1/*2}$ mother loves **Lance**$_1$' ; '**Lance**$_1$'s mother loves **him**$_{1/*2}$

   b. **wen**$_1$ **ug**$_{1/*2}$-gwij-l gesal-tl
    who 3-mother-OBV love-4>3
    '**Who**$_1$ does **his**$_{1/*2}$ mother love?'

- there have been two approaches to explain the lack of WCO effects in other Algonquian languages argued to have *wh*-movement:

  1. Bruening (2001) argues that the direct-inverse system is the key
     - under his analysis, arguments lower on the hierarchy are generated in the canonical object argument position and higher ones in the canonical subject position
     - in inverse forms, the lower argument undergoes A-movement over the higher argument

- since WCO only occurs from the result of A-bar movement, these effects would not be present
  * however, Bruening argues that WCO effects are present in direct forms in Passamaquoddy

2. Brittain (2001) argues that the proximate-obviative marking is the key
   - she argues for a constraint which limits each clause as having only one proximate 3rd person
   - thus, proximate 3rd persons are interpreted as co-referential by default in order to avoid violating this constraint
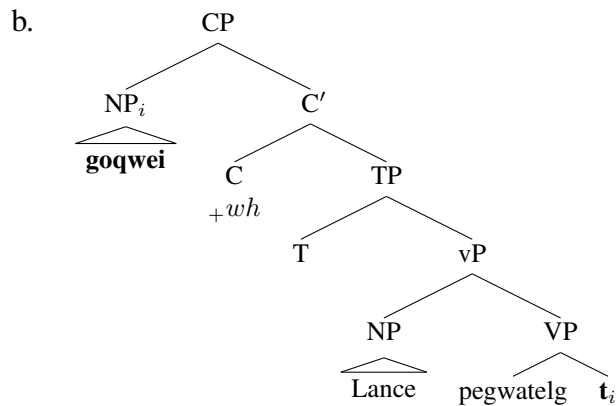
- thus far, there is no evidence for WCO in direct forms in Mi'gmaq

- given the importance of obviative marking in co-reference patterns between 3rd and 4th persons, Brittains account has more appeal for Mi'gmaq
  - however, further research is necessary, especially with multi-causal data

- in addition, the ability to use WCO as a diagnostic for *wh*-questions is under some question
  - WCO is lacking some configurations in some languages with *wh*-movement, e.g., German (Grewendorf and Sabel, 1999) and English (Safir, 1986) (Lasnik and Stowell, 1991) (Postal, 1993)
  - it is clear that WCO effects are also poorly understood in general
    * as such the fact that Mi'gmaq does not show WCO effects does not necessarily compromise a *wh*-movement analysis

5 Preliminary account

5.1 Single *wh*-questions

- *wh*-questions with a single instance of *wh*-movement, such as (25a), can be analyzed as in (25b)

  (25) a. **goqwei** Lance pegwatel-g?
            what Lance buy-3>0
            '**What** is Lance buying?'

  b.

```
                        CP
                  ┌──────┴──────┐
                NP_i            C′
                 │         ┌─────┴─────┐
              goqwei       C           TP
                          +wh      ┌────┴────┐
                                   T         vP
                                        ┌─────┴─────┐
                                       NP           VP
                                        │       ┌────┴────┐
                                      Lance  pegwatelg    t_i
```

  - *goqwei* 'what' is base generated as a complement to the verb in the canonical object position
  - the *wh* feature on C attracts *goqwei* to its specifier

- long-distance *wh*-movement examples, such as in (26a), can be analyzed as in (26b)

(26)   a.   **goqwei** Mali telta's-it [Lance pegwatel-g]?
              what Mary think.3 [Lance buy-3>0]
              '**What** does Mary think Lance is buying?'

b.
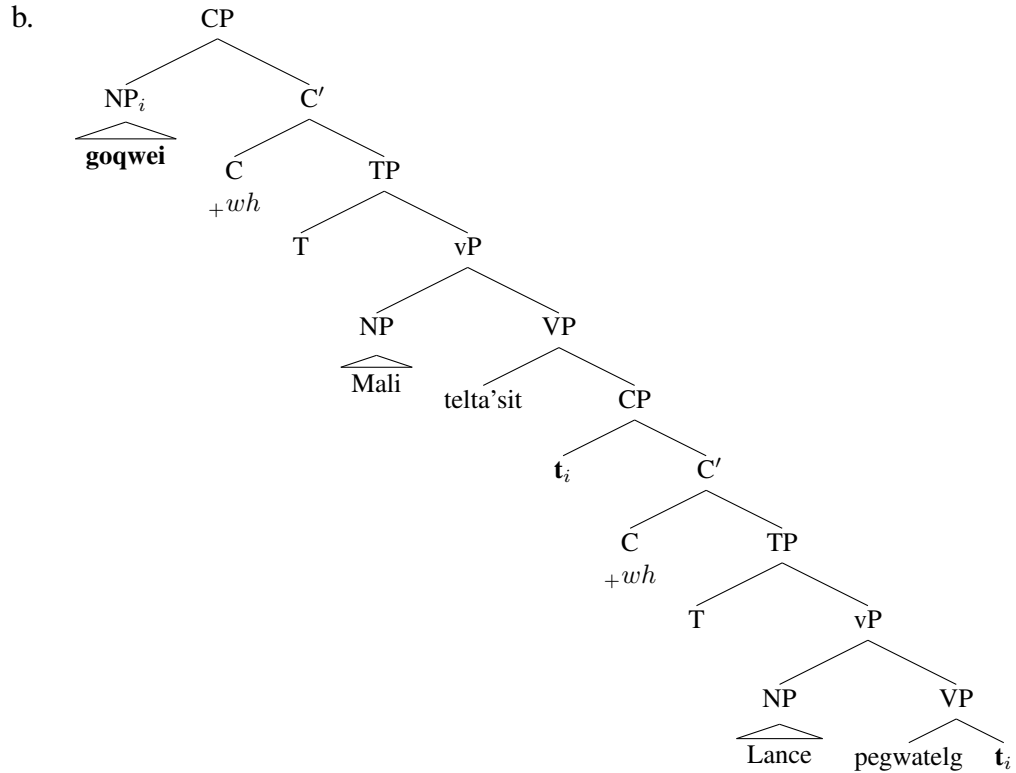
- *goqwei* 'what' is base generated as a complement to the embedded verb
- it undergoes *wh*-movement through the specifier of the embedded CP to the specifier of the matrix CP

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5.2 Multiple *wh*-questions

- in *wh*-questions with multiple instances of *wh*-movement, such as (27a), can be analyzed as in (27b) Richards (1997)

(27)   a.   **wen goqwei** pegisi-toq-s'p?
              who what   bring-3>0-PST
   '**Who** brought **what**?'

        b.
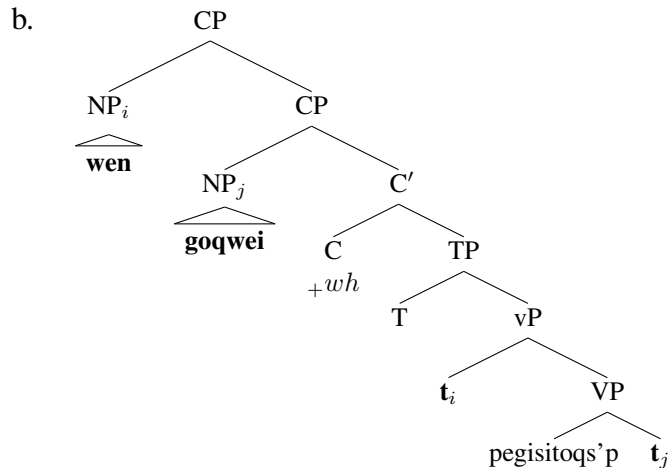
- both *wen* and *goqwei* are base generated in canonical argument positions
- the *wh* feature on C attracts *wen* first to its specifier since it is the the structurally highest *wh*-phrase, due to the principle of Attract closest
- *goqwei* is then attracted and 'tucks in' to a second specifier position below where *wen* moves, due to the principle of Shortest Move
  - ∗ this accounts for superiority effects, as subject *wh*-phrases will always c-command the object *wh*-phrases in both base generated and post-*wh*-movement positions

5.3 Issues and an alternate account

- if Mi'gmaq were identical to Bulgarian, then we would incorrectly predict that:

1. there would be no *wh*-island violations
   - since it is possible to have multiple specifiers in embedded CPs, multiple long-distance *wh*-movement is possible
   - but wh-island-type violations were shown in 3.1
     - ∗ embedded CPs seemingly unable to have multiple specifiers in Mi'gmaq
2. there would be WCO effects
   - since object *wh*-phrases will always A-bar move over non-interrogative subject NPs in the relevant constructions
   - but no WCO effects within a clause were shown in 3.4

- an alternate analysis of multiple *wh*-questions, similar to Serbian-Croatian, would involve adjunction of one or both of the *wh*-phrases to IP, as in (28b) or (28c), i.e., Rudin (1988), Richards (1997)

(28)   a.   **wen goqwei** pegisi-toq-s'p?
            who what   bring-3>0-PST
            '**Who** brought **what**?'

b.

c.
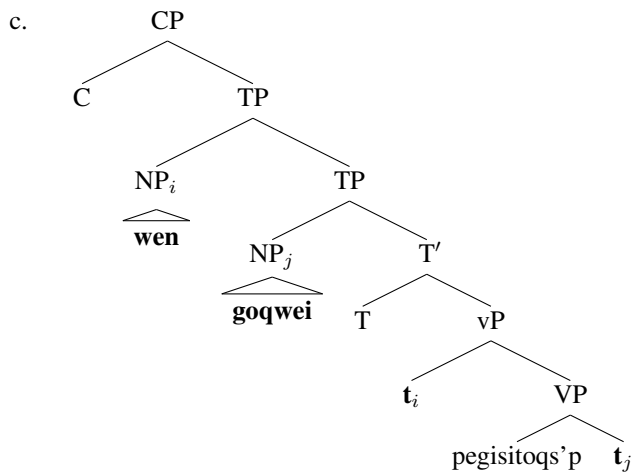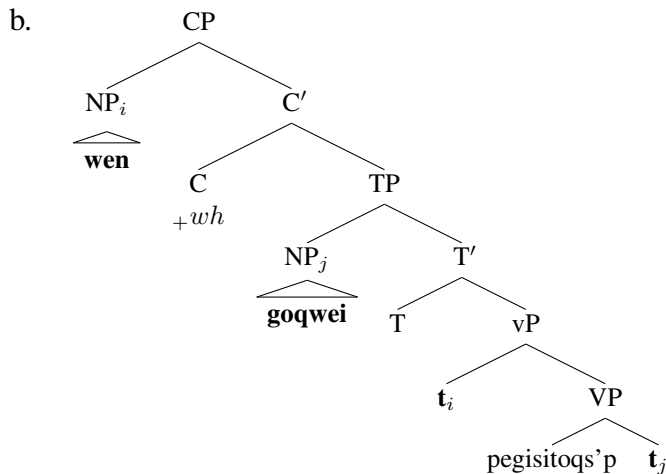
- this analysis would predict:
    1. *wh*-island violations
        - since multiple CP specifiers are not possible
    2. no WCO violations
        - since *wh*-movement would be parallel to A-scrambling
        - this would pattern nicely a Bruening (2001)-style analysis of the inverse
- However this analysis would not predict superiority effects
    - since any order of adjunction of *wh*-phrases would be possible
- superiority effects would need to be derived via another constraint, e.g., animacy hierarchy effects

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6 Conclusions

- I have shown that a *wh*-movement analysis of *wh*-questions in Mi'gmaq seems to be the most appropriate one

  - they seem to exhibit what can be analyzed as subjacency, CED and island effects
  - they seem to have multiple *wh*-questions and superiority effects
  - however they do not show WCO effects

- I have proposed a Richards (1997)-stye analysis of multiple *wh*-questions, similar to Bulgarian

  - although it does not account for the presence of *wh*-island violations or lack of WCO effects

- further research is clearly needed to investigate:

  1. the lack of WCO effects (particularly in multi-clausal utterances)
  2. superiority effects in other contexts, e.g., in embedded clauses
  3. scrambling, e.g., A or A-bar?
  4. quantifier scope and word order

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