Information structure in Kanien'kéha

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Introduction
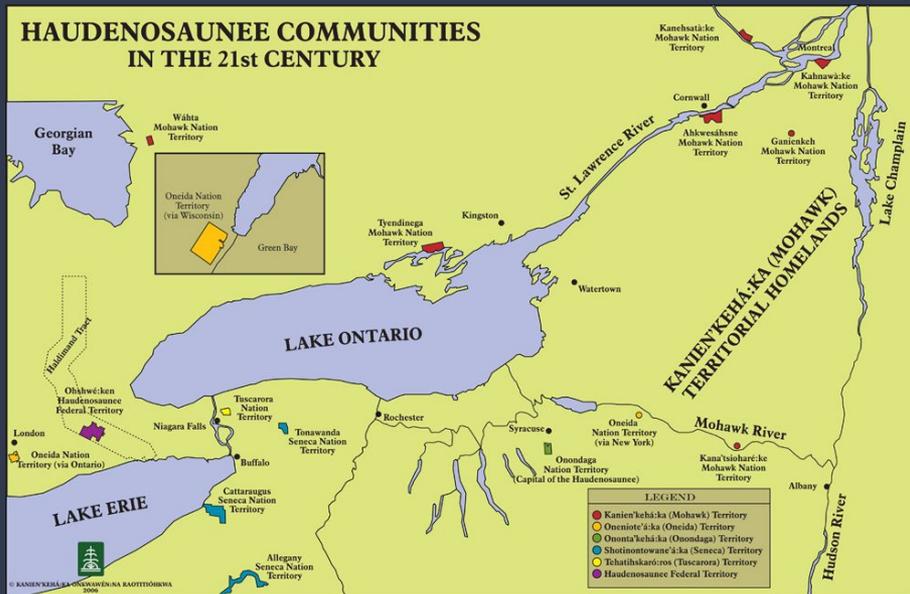
- Kanien'kéha is a Northern Iroquoian language spoken in Ontario, Quebec and upstate New York (DeCaire 2023; Stacey 2016, 2024; Brant 2024)

- It is a so-called "polysynthetic" language, meaning it is very morphologically complex (Fortescue et al. 2017)

- Stand-alone nominals are relatively rare due to:
    - Rich agreement
    - Robust *pro*-drop
    - Frequent & productive noun incorporation

- But when nominals **are** overt, they can appear in any order (Baker 1996)

"Free" word order in Kanien'kéha

- All six logically possible word orders are grammatical in Kanien'kéha:

(1)	**S**	**V**		**O**		
	Sak	ranòn:we's		akoatiá'tawi.		
	Sak	he.likes.it		her.dress		

(2)	**V**		**S**	**O**		
	Ranòn:we's		Sak	akoatiá'tawi.		
	he.likes.it		Sak	her.dress		

(3)	**S**	**O**		**V**		
	Sak	akoatiá'tawi		ranòn:we's.		
	Sak	her.dress		he.likes.it		

(4)	**V**		**O**		**S**
	Ranòn:we's		akoatiá'tawi	ne	Sak.
	he.likes.it		her.dress	NE	Sak

(5)	**O**	**V**		**S**
	Akoatiá'tawi	ranòn:we's	ne	Sak
	her.dress	he.likes.it	NE	Sak

(6)	**O**	**S**	**V**
	Akoatiá'tawi	Sak	ranòn:we's.
	her.dress	Sak	he.likes.it

(Baker 1996:10)

'Sak likes her dress.'

Previous work

- Baker (1996): Polysynthesis Parameter which requires that all overt nouns are adjuncts in polysynthetic languages (and the true arguments of the verb are null *pro's* indexed by morphology on the verb) - explains free ordering of NPs:
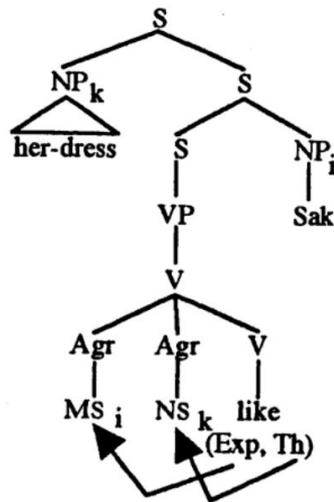
- More recently, Mithun (2015, 2020): word order is governed by "newsworthiness"
- DeCaire et al. (2017): propose that there is a left-periphery focus position in Spec,CP

Proposal

- I conducted fieldwork with first language speaker Mary Onwá:ri Tekahawáhkwen McDonald as well as collected some data from narratives written in Kanien'kéha (Williams 1976)

- Based on this data, I propose that there is a left-periphery focus position, but that topics also play a role in determining word order

- In refining topic and focus positions in Kanien'kéha, I propose that foci are located not in Spec,CP but in Spec,TP, and that topics occupy Spec,CP

- Finally, constituents may also be right-dislocated in Kanien'kéha, realized as a construction traditionally called 'antitopics' in Iroquoian literature (Chafe 1976, Mithun 2020)

[CP [TOPIC] [TP [FOCUS] [T [VERB] [VP [DP_{SUBJ}] [DP_{OBJ}]]]]] [ANTITOPIC]

Focus

- **Focus**: new information that is identified against a presupposed background (Beaver & Clark 2003, Krifka 2008, Büring 2009, Aissen 2023)

Information focus

(7) **Context:** One of your children has broken a toy, and you're trying to figure out who did it.

Q: Ónhka   wa'kiérihte'   ne   iontkahri'táhkhwa'?
      who   they.broke.it   NE   toy
      'Who broke the toy?'

A₁: [Wíshe]_FOC   wa'thá:rihte'   ne   iontkahri'táhkhwa'!
      Wíshe   he.broke.it   NE   toy
      '**WÍSHE** broke the toy!'

A₂: [Ráonha]_FOC wa'thá:rihte'   ne   iontkahri'táhkhwa'!
      MPRO   he.broke.it   NE   toy
      '**HE** broke the toy!'

A₃: #Wa'thá:rihte'   ne   iontkahri'táhkhwa'!
        he.broke.it   NE   toy
        'He **BROKE** the toy!'

(McDonald 2024)

Information focus

(8) **Context:** You heard a crash and you know your son must have broken something, but you don't know what he broke.

Q: Nahò:ten   wa'thá:rihte'?
       what   he.broke.it
       'What did he break?'

A_1:   [Iontkahri'táhkhwa']$_{FOC}$ wa'thá:rihte'!
        toy   he.broke.it
        'He broke the **TOY**!'

A_2:   #[Ráonha]$_{FOC}$ wa'thá:rihte'   ne   iontkahri'táhkhwa'!
          MPRO   he.broke.it   NE   toy
        '**HE** broke the toy!'   (McDonald 2024)

Selective focus

(9) Context: You know that it is either Kó:r or Warisó:se who is moving away soon, but you can't remember who.

Q: Kó:r   katon Warisó:se   ionhtenkiónhe'?
      Kó:r   or   Warisó:se   they're.moving.away
      'Is it Kó:r or Warisó:se that's moving away?'

A₁: [Kó:r]$_{FOC}$ rahtenkiónhe'.
      Kó:r   he's.moving.away
      '**KÓ:R** is moving away.'

A₂: #[Rahtenkiónhe']$_{FOC}$ ne   Kó:r.
       he's.moving.away   NE   Kó:r
      'Kó:r is **MOVING** away.'   (McDonald 2024)

Corrective focus

(10) Context: A storyboard shows a dog chasing a boy.

Q: Takó:s   ken   róhsere   ne   raksá:'a?
        cat   Q   he.follows.him   NE   boy
        'Is a **CAT** following the boy?'

A$_1$: Iah,   [érhar]$_{FOC}$ róhsere   ne   raksá:'a.
        no   dog   he.follows.him   NE   boy
        'No, the **DOG** is following the boy.'

A$_2$: #Iah,   [raksá:'a]$_{FOC}$ róhsere   ne   érhar.
         no   boy   he.follows.him   NE   dog
        cannot mean: 'No, the **DOG** is following the boy.'
   (ok as: 'No, the **BOY** is following the dog.')

(McDonald 2024)

Corrective focus

(11) Context: A storyboard shows a dog chasing a boy.

Q: Ieksá:'a   ken   shakóhsere   ne   érhar?
        girl   Q   he.follows.her   NE   dog
        'Is the dog following the **GIRL**?'

A₁: Iah,   [raksá:'a]₍FOC₎   róhsere.
        no   boy   he.follows.him
        'No, it's following the **BOY**.'

A₂: #Iah, [érhar]₍FOC₎   róhsere   ne   raksá:'a.
         no   dog   he.follows.him   NE   boy
        'No, the **DOG** is following the boy.'
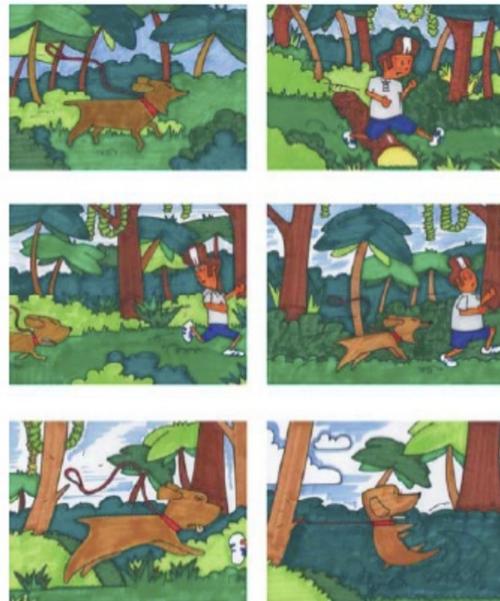
(McDonald 2024)

'Excorporation' as focus

- DeCaire et al. (2017) observe that "excorporation" of incorporable nouns only arises under focus conditions:

(12) Q: Wahahonwahní:non'   ken   ne   Sewátis?
            he.boat.bought   Q   NE   John
            'Did John buy a boat?'

      A$_1$:   Iah.   [Kà:sere]$_{FOC}$ wahahní:non'.
               no   car   he.bought
               'No. He bought a **CAR**.'

      A$_2$:   #Iah.   Waha'serehtahní:non'.
                no   he.car.bought
               'No. He bought a car.'   (DeCaire et al. 2017:7, dialect unknown)

'Excorporation' as focus

- Their claim about excorporation is further confirmed in my data:

(13) **Context:** You're talking about the different types of foods that your friend Sak eats.
  - (a) Sak   rentsia'ks.
        Sak   he.fish.eats
        'Sak eats fish.'

(14) **Context:** The only food Sak eats is fish.
  - (a) [Kéntsion]$_{FOC}$ khok í:raks.
        fish   only   he.eats
        'He only eats **FISH**.'   (McDonald 2025)

(15) **Context:** The only food Sak eats is fish.
  - (a) *Sak   réntsia'ks   khok.
         Sak   he.fish.eats   only
        'Sak only eats fish.'

  - (b) #Sak khok   réntsia'ks.
         Sak only   he.fish.eats
        'Only Sak eats fish.' / 'Sak is the only one who eats fish.'
        cannot mean: 'Sak only eats fish.'
                                        (McDonald 2025)

Topic

- **Topic**: harder to define than focus, although it is sometimes said to be juxtaposed against a comment; a speaker will introduce a topic before making a comment about that topic (Krifka 2008, Lopez 2014, Aissen 2023)

| [CP | TOPIC | [TP | FOCUS | [T | VERB | [VP | DP$_{SUBJ}$ | DP$_{OBJ}$]]]] | [ANTITOPIC] |

Topic shift

(16) (a)   Wahní:ron', tsi nikarí:wes enkahwatsiratátie' tánon' entkarahwinekénhseke', óhente' entkahnióhseke' tánon ohné:kanos kón:ne's é' thó nikarí:wes enkatátie' ne Kaianere'kó:wa.
'He (Tekanawí:ta) said that this confederacy would last from generation unto generation, as long as the sun shines, the grass grows, and the waters run.'

(b)   [Aié:wate']_{TOP},   wahakwé:ni'   wahona'tón:hahse'   ne   Atotárho...
       Hiawatha   he.was.able   he.called.him   NE   Atotarho
       'Hiawatha, he went to the wicked Chief Atotarho...'   (Kaieríthon 1976b, K.)

Where do topic and focus belong?

[CP [TOPIC] [TP [FOCUS] [T [VERB] [VP [DP$_{SUBJ}$] [DP$_{OBJ}$]]]]] [ANTITOPIC]

Topic precedes focus

(17) **Q:** What are you going to buy for your son and daughter for Christmas?

A: [Riién:'a]_{TOP}   [okón:tshera']_{FOC}   enhihnínon'se',   tánon'   [kheién:'a]_{TOP}   [soccer athé:non]_{FOC}
       my.son   paint   I.will.buy.for.him   and   my.daughter   soccer ball
                       enkhehnínonse'.
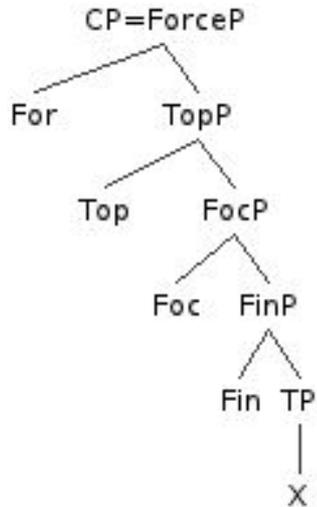   I.will.buy.for.her
       'For my son, I'll buy paint, and for my daughter, I'll buy a soccer ball.'   (McDonald 2024)

(18) **Context:** The only food Sak eats is fish.

(a)   [Sak]_{TOP}   [kéntsion]_{FOC}   khok   ì:ra'ks.
       Sak   fish   only   he.eats
       'Sak only eats fish.'   (McDonald 2025)

So far:

- Now we have confirmed TOP before FOC, so far this aligns with Rizzi (1997, 2004)'s structure of the left periphery:

```
         CP=ForceP
        /        \
      For        TopP
               /      \
            Top        FocP
                      /    \
                   Foc      FinP
                           /    \
                        Fin     TP
                                 |
                                 X
```

- Could this structure be applied to Kanien'kéha?

Embedded topics

(19) Í:kehrhe' tánon' iah tewakaterién:tare **(ne)** **(*tsi)** [riién'a]$_{TOP}$ [okón:tshera']$_{FOC}$
     I.think and NEG I.don't.know NE C my.son paint

     enhihnínon'se', tánon' [kheién:'a]$_{TOP}$ [soccer athé:non]$_{FOC}$ enkhehnínon'se'.
     I.will.buy.for.him and my.daughter soccer ball I.will.buy.for.her

'I think, but I don't know, that for my son, I'll buy paint for him, and for my daughter, I'll buy a soccer ball for her.'

(McDonald 2025)

(20) Wakaterién:tare **(ne)** **(*tsi)** [Sak]$_{TOP}$ [kéntsion]$_{FOC}$ khok í:raks.
     I.know NE C Sak fish only he.eats

'I know for a fact that Sak only eats fish.'

(McDonald 2025)

Embedded topics

(19) Í:kehrhe' tánon' iah tewakaterién:tare [riién'a]_{TOP} **tsi** [okón:tshera']_{FOC} enhihnínon'se',
I.think and NEG I.don't.know my.son C paint I.will.buy.for.him

tánon' [kheién:'a]_{TOP} [soccer athé:non]_{FOC} enkhehnínon'se'.
and my.daughter soccer ball I.will.buy.for.her

'I think, but I don't know, that for my son, I'll buy paint for him, and for my daughter, I'll buy a soccer ball for her.'
(McDonald 2025)

(20) Wakaterién:tare [Sak]_{TOP} **tsi** [kéntsion]_{FOC} khok í:raks.
I.know Sak C fish only he.eats

'I know for a fact that Sak only eats fish.'
(McDonald 2025)

Embedded topics

- This data helps clarify that the landing site for topics in Kanien'kéha is within the CP layer, rather than in a dedicated TopP position
- If topics belonged in a dedicated TopP position, then the following structure should be grammatical:

* [$_{TP}$ lah tewakaterièn:tare [$_{CP}$ tsi [$_{TopP}$ riién:'a [$_{FocP}$ okóntshera [$_{TP}$ enhihní:non'se'...]]]]]
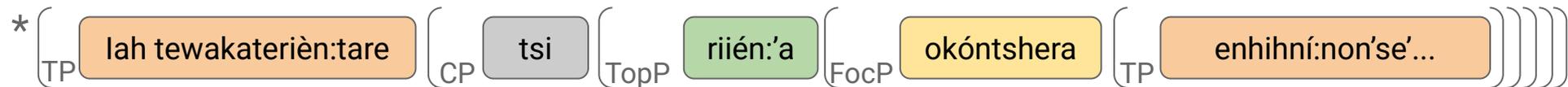
- However, the fact that *tsi* can occur after a topic indicates that topics belong in Spec,CP rather than in TopP

[$_{TP}$ lah tewakaterièn:tare [$_{CP}$ riién:'a [$_{C}$ tsi [$_{TP}$ okóntshera [$_{T}$ enhihní:non'se'...]]]]]

Where is focus?

- This data is compatible with focus in Kanien'kéha belonging in FocP

- However, I propose that focus is instead located in TP based on several independent factors:

  - Kanien'kéha lacks processes associated with subject movement to Spec,TP: no raising verbs, no evidence that unaccusative or passive subjects are A-moved, and no evidence for EPP movement (Baker 1996, Koenig & Michelson 2015)

  - Mirror Principle (Baker 1985) effects: derivational morphology in Kanien'kéha is all suffixal; the verb starts low and moves up the clausal spine

  - Gatchalian (2025): the T head is always present in Kanien'kéha even if null; since tense suffixes are at the very end of the verb, I argue that the verb always moves to T

- Therefore, since the position in Spec,TP remains empty, and we know that topic is in Spec,CP, it makes sense to posit that this is where focused constituents end up

Conclusion

- Information structure plays an undeniable role in determining the order of words in a Kanien'kéha sentence

- I argue, contra DeCaire et al. (2017)'s proposal that there is only one preverbal position in Kanien'kéha, that topics belong in Spec,CP and foci belong in Spec,TP

- Baker (1996)'s parameter forcing all overt nouns to be adjoined cannot account for the structural differences between topics and foci

- Potential implications for teachers and learners of Kanien'kéha; learners are often told that "whatever is most important comes first," but there are different ways for something to be important!

Acknowledgements

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Appendix: Antitopics

[CP [TOPIC] [TP [FOCUS] [T [VERB] [VP [DP_SUBJ] [DP_OBJ]]]]] [ANTITOPIC]

Antitopics

- **Antitopic:** term first coined by Chafe (1976), further described in Mithun 2015, 2020; refers to constituents that always appear at the end of a sentence, preceded by *ne*, which refer back to a topic already mentioned earlier in the discourse context

- Potential example from Williams (1976):

(21) Katsi'tsaró:roks   o'nisténha   iotká:te'   ronwatikaratón:nis   ne   ronwatiien'okón:'a,
      Gathering.Flowers her.mother   often   she.told.them.stories   NE   her.children
              [ne   iakotinenióia'ks.]_{ANTITOP}
              ne   little.people
      'Gathering Flowers' mother had often told her stories about them, the little people.'   (Kaieríthon 1976a)