

# **An Inquisitive Marker in Kaingang**

**Michel Navarro, Hotze Rullmann, Lisa Matthewson**  
**University of British Columbia**

Polar question meaning[s] across languages

University of Amsterdam

April 11, 2024

# Introduction

## The puzzle

- Kaingang (Jê, Brazil) has a particle  $m\tilde{y}$  which appears in several different constructions.
- ? What is the unifying semantic property of  $m\tilde{y}$ ?

## $M\tilde{y}$ 's multiple uses

1.  $m\tilde{y}$  turns an assertion into a **polar question**.
2.  $m\tilde{y}$  appears in **disjunctive** assertions.
3.  $m\tilde{y}$  appears in **polar questions with disjunction**.
4.  $m\tilde{y}$  appears in **alternative questions**.
5.  $m\tilde{y}$  turns an assertion containing an **existential** into a **polar question**.
6.  $m\tilde{y}$  turns an assertion containing an **existential** into a **content question**.

## An (imperfect) parallelism between two sets of data

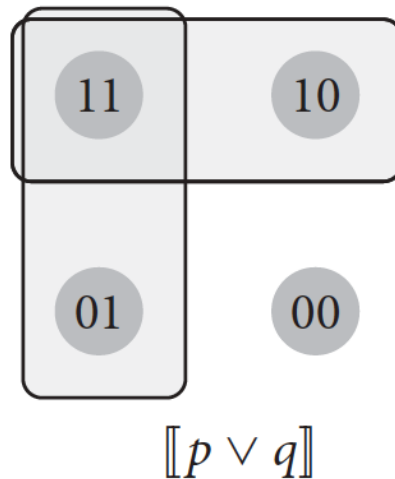
- For disjunctions, PQs and AltQs, a triplet of sentence-types all contain *mỹ*:
  - i. disjunctive assertions *mỹ*
  - ii. polar questions containing disjunction *mỹ*
  - iii. alternative questions *mỹ*
- There is a quite close parallel in the existential/content-question area:
  - i. existential assertions *no mĩ*
  - ii. polar questions containing an existential *mỹ*
  - iii. content questions *mỹ*

# All these sentence-types are inquisitive, but in different ways

- Disjunctive assertions and existential assertions assert that **one of the alternatives** is true, but **leave unresolved** which one.

- i. **disjunctive assertions**
- ii. polar questions containing disjunction
- iii. alternative questions

- i. **existential assertions**
- ii. polar questions containing an existential
- iii. content questions



# All these sentence-types are inquisitive, but in different ways

- PQs containing disjunction and PQs containing an existential **ask whether at least one of the alternatives** is true.

i. disjunctive assertions

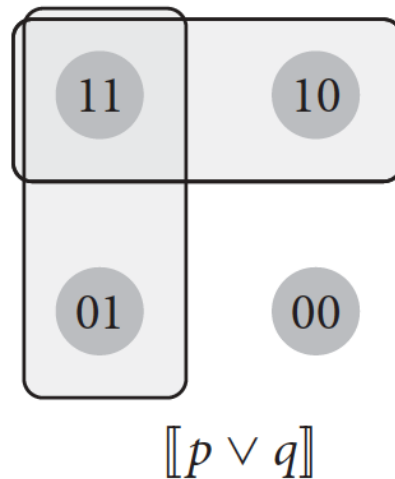
ii. **polar questions containing disjunction**

iii. alternative questions

i. existential assertions

ii. **polar questions containing an existential**

iii. content questions

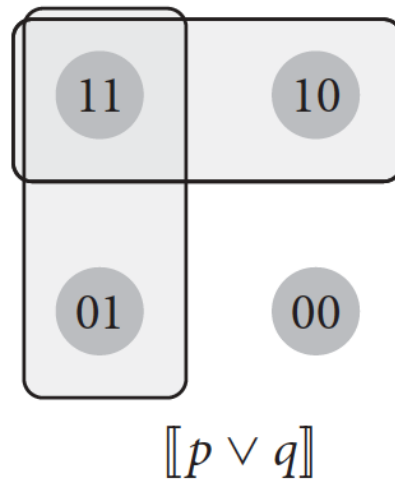


# All these sentence-types are inquisitive, but in different ways

- Alternative questions and content questions **ask which of the alternatives** is true.

- i. disjunctive assertions
- ii. polar questions containing disjunction
- iii. **alternative questions**

- i. existential assertions
- ii. polar questions containing an existential
- iii. **content questions**





# Preview of proposal

- We focus here on  $m\tilde{y}$ 's uses in polar questions, disjunctive assertions, polar questions containing disjunction and alternative questions.
- We pursue the hypothesis that  $m\tilde{y}$  is **licensed by a higher inquisitive operator** in the sense of Inquisitive Semantics.  
(Groenendijk & Roelofsen 2009, Ciardelli, Groenendijk & Roelofsen 2019, among many others).
- This is work in progress!

# Roadmap of the talk

§2 Language background

§3 Data: Disjunctions and polar/alternative questions

§4 Analysis

§5 Brief look at existentials and content questions

§6 Conclusion and outlook

# Language background

# The Kaingang language

- Jê family
- Southeastern and Southern Brazil
- Approximately 22,000 speakers (IBGE 2012)
- Five dialects (Wiesemann 1971; 2002)
- Our data are from the Paraná dialect
  
- All data were collected in fieldwork by the first author.



# **Data: Disjunction and polar/alternative questions**

## Syntax of $m\tilde{y}$

- $M\tilde{y}$  can appear:
  - in second position (after the subject)
  - at the end of a clause
- When it is in second position, it doesn't have to target the subject (as shown by data below where objects are disjointed).
- We assume that  $m\tilde{y}$  is a clause-level operator (maybe in C).

## *Mỹ* turns an assertion into a polar question

(1) Fógtẽ **vỹ** nũr Ø.  
Fógtẽ NOM sleep PRV  
'Fógtẽ slept.'

ASSERTION

(2) Fógtẽ **mỹ** nũr Ø.  
Fógtẽ INQ sleep PFV  
'Did Fógtẽ sleep?'

POLAR QUESTION

- *Mỹ* replaces the so-called 'nominative' marker *vỹ*. We conclude that *mỹ* is a second-position clitic with clausal scope.



## Polar questions with *mỹ* receive yes/no answers

(3) A: Fógtě **mỹ** nũr ∅ uri?  
Fógtě INQ sleep PFV today  
'Did Fógtě sleep today?'

B: **Hỹ/ Vó.**  
'Yes / No.'

(4) A: Fógtě **mỹ** rãnrãj ∅ uri?  
Fógtě INQ work PFV today  
'Did Fógtě work today?'

B: **Hỹ/ Vó.**  
'Yes / No.'

## *Mỹ* appears in disjunctive assertions

(5) Fógtẽ **mỹ** nūr ∅, ti (**mỹ**) rãhrãj ∅ **vó**.

Fógtẽ INQ sleep PFV 3SG.M (INQ) work PFV DISJ

‘Fógtẽ slept or worked.’

ASSERTION WITH DISJUNCTION

- *Mỹ* is obligatory on the first disjunct and optional on subsequent disjuncts.

## Disjunctive assertions with *mỹ* in context

(6) *Context: Maria wants to find out where Fógťě was born. She knows that you and Fógťě are good friends, so she asks you:*

Question: Hě tá Fógťě vỹ mur Ø?  
where there Fógťě NOM born PFV  
'Where was Fógťě born?'

*You know that he was born in Taquara or Vila Nova. You answer her:*

Answer: Fógťě **mỹ** Taquara tá mur Vila Nova tá **vó**.  
Fógťě INQ Taquara there born Vila Nova there DISJ  
'Fógťě was born in Taquara or Vila Nova.'

## *Mỹ* appears in PQs with disjunction and alternative questions

(7) Fógtẽ *mỹ* nũr Ø, ti (*mỹ*) rãnrãj Ø *vó*.

Fógtẽ INQ sleep PFV 3SG.M (INQ) work PFV DISJ

‘Fógtẽ slept or worked.’

ASSERTION WITH DISJUNCTION

- Other possible interpretations of (7):
  - a. ‘Did Fógte sleep or work?’ PQ WITH DISJUNCTION (answer e.g. ‘No.’)
  - b. ‘Did Fógte sleep or work?’ ALTERNATIVE QUESTION (answer e.g. ‘He slept.’)

(cf. Anderbois 2011 for similar observations for Yucatec Maya)

## PQs containing disjunction in context

- (8) *Context: There will be a party in Taquara and one in Vila Nova. You want to go to either one as they will both have good music. You see your neighbour getting into his car.*

You: ã tỹ Taquara ra tĩg **mỹ**, Vila Nova ra **vó**?  
2SG ERG Taquara to go INQ Vila Nova to DISJ  
'Are you going to Taquara or to Vila Nova?'

Nbr: **Hỹ.**      **Vó.**  
yes / no  
'Yes.'      'No.'

## Alternative questions in context

- (9) *Context: There will be a party in Taquara and one in Vila Nova. You will only leave your home if you find a way to go to the party in Taquara. You see your neighbor getting into his car.*

You: ã tỹ Taquara ra tĩg mỹ, Vila Nova ra vó?  
2SG ERG Taquara to go INQ Vila Nova to DISJ  
'Are you going to Taquara or to Vila Nova?'

Nbr: Taquara ra inh tĩg.  
Taquara to 1SG go  
'I'm going to Taquara.'

## A dialogue with both types of question

(10) *Context: Having a conversation about breakfast.*

Fógtē: Ā **mỹ** kafe kron ∅ goj **vó?**  
2SG INQ coffee drink PFV water DISJ  
'Did you drink coffee or water?'

PQ WITH DISJUNCTION

Kórig: Hỹ.  
'Yes.'

Fógtē: Ā **mỹ** kafe kron ∅ goj **vó?**  
2SG INQ coffee drink PFV water DISJ  
'Did you drink coffee or water?'

ALTERNATIVE QUESTION

Kórig: Goj.  
'Water.'

## Data summary so far

|               | single proposition<br>$p$      | disjunction<br>$(p \vee q)$                 |
|---------------|--------------------------------|---|
| assertion     | —                              | <b><math>m\tilde{y} + v\acute{o}</math></b> |
| polar Q       | <b><math>m\tilde{y}</math></b> | <b><math>m\tilde{y} + v\acute{o}</math></b> |
| alternative Q |                                | <b><math>m\tilde{y} + v\acute{o}</math></b> |



# **Analysis**

## Core hypothesis

(inspired by Szabolcsi's 2015 account of Japanese *ka*; see also Anderbois 2011 on Yucatec Maya)

- $M\tilde{y}$  does not itself make the sentence inquisitive.
- $M\tilde{y}$  needs to be **licensed by an inquisitive operator** higher in the structure (analogous to licensing of NPIs by a downward entailing operator).

More precisely:

- $M\tilde{y}$  must be attached to a non-inquisitive clause that is part of a larger constituent that is inquisitive.

(cf. Szabolcsi's algebraic formulation in terms of the *join* operation)

## Additional assumptions

- Syntactically,  $m\tilde{y}$  attaches at the level of a clause, appearing either clause-finally or in second position.
- We use InqB as our translation language (Ciardelli et al. 2019).
- We assume Kaingang has **two silent clause-type markers** at the CP level. (following the analysis of English by Roelofsen 2015; Ciardelli et al. 2019, ch. 6, and references cited there)
  - INT  $\rightsquigarrow \lambda p. ?p$
  - DECL  $\rightsquigarrow \lambda p. !p$
- **Caveat:** We currently don't have data on intonation and prosody in Kaingang. This could lead to refinements of the analysis.

## Non-disjunctive polar questions

(11) Fógtě **mỹ** nũr ∅.

Fógtě INQ sleep PFV

‘Did Fógtě sleep?’

POLAR QUESTION

[ [ ... *mỹ* ... ] **INT** ]

↷

?*p*

11

10

01

00

## Non-disjunctive polar questions

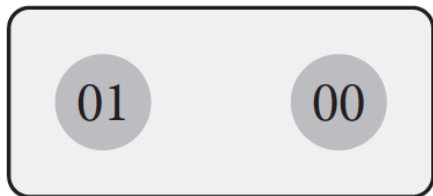
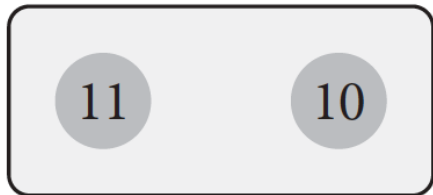
(11) Fógtě **mỹ** nũr ∅.

Fógtě INQ sleep PFV

‘Did Fógtě sleep?’

POLAR QUESTION

[ [ ... *mỹ* ... ] INT ]  $\rightsquigarrow$  ?*p*

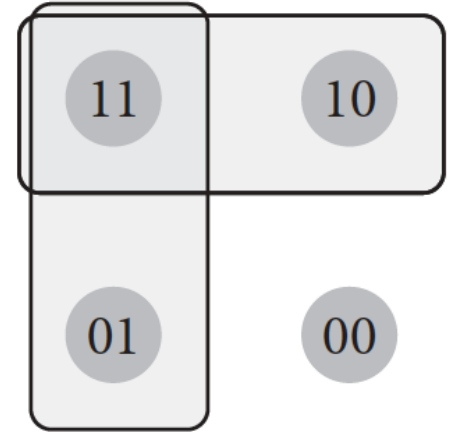


- Why not analyze ***mỹ* itself** as the interrogative operator?
- Crucial evidence comes from the disjunction data!

# Disjunctions

- The basic meaning of *vó* is inquisitive disjunction.
- Because it is inquisitive, *vó* can license *mỹ*.

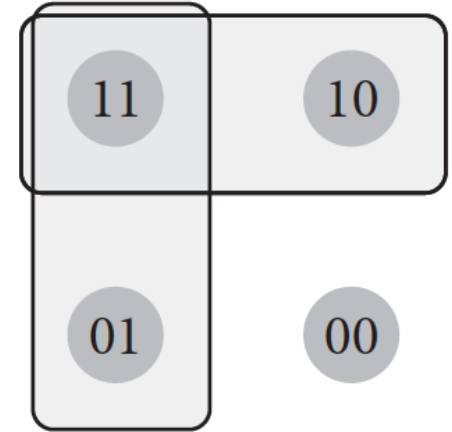
[ [ ... *mỹ* ... ] [ ... (*mỹ*) ... ] ***vó*** ]  $\leadsto$  ( *p*  $\vee$  *q* )



# Disjunctions

- The basic meaning of *vó* is inquisitive disjunction.
- Because it is inquisitive, *vó* can license *mỹ*.

[ [ ... *mỹ* ... ] [ ... (*mỹ*) ... ] ***vó*** ]  $\leadsto$  ( *p*  $\vee$  *q* )



- Various final interpretations are derived with DECL and INT.

## Assertion with disjunction

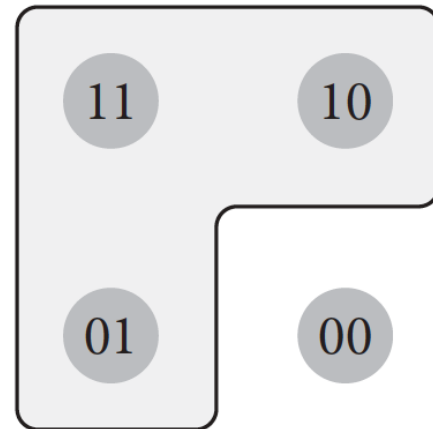
(12) Fógtẽ **mỹ** nũr ∅, ti (**mỹ**) rãhrãj ∅ **vó**.

Fógtẽ INQ sleep PFV 3SG.M (INQ) work PFV DISJ

‘Fógtẽ slept or worked.’

ASSERTION WITH DISJUNCTION

[ [ [ ... *mỹ* ... ] [ ... (*mỹ*) ... ] *vó* ] **DECL** ]  $\rightsquigarrow$   $!(p \vee q)$

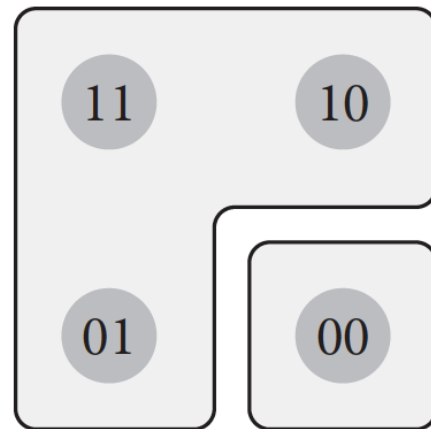




## Polar question with disjunction

- (13) Fógtẽ **mỹ** nũr Ø, ti (**mỹ**) rãnrãj Ø **vó?**  
Fógtẽ INQ sleep PFV 3SG.M (INQ) work PFV DISJ  
'Did Fógtẽ sleep or work?' PQ WITH DISJUNCTION  
(answer e.g. 'No.')

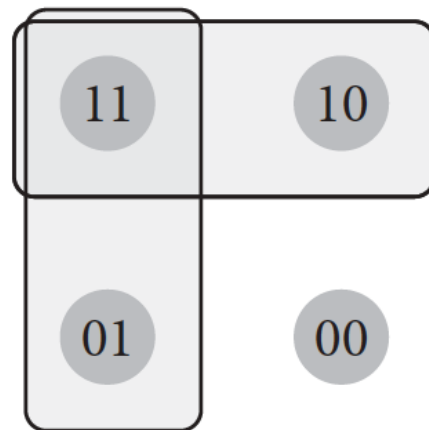
[ [ [ [ ... *mỹ* ... ] [ ... (*mỹ*) ... ] *vó* ] **DECL** ] **INT** ]  
 $\leadsto$  ?!( $p \vee q$ )



## Alternative question

- (14) Fógtẽ **mỹ** nũr ∅, ti (**mỹ**) rãnrãj ∅ **vó?**  
Fógtẽ INQ sleep PFV 3SG.M (INQ) work PFV DISJ  
'Did Fógtẽ sleep or work?' ALTERNATIVE QUESTION (answer e.g. 'He slept.')

[ [... *mỹ* .... ] [... (*mỹ*) .... ] *vó* ]  $\leadsto$  ( $p \vee q$ )



## Alternative question

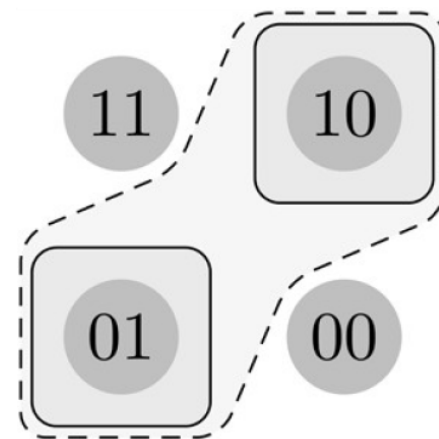
(14) Fógtẽ **mỹ** nũr ∅, ti (**mỹ**) rãnrãj ∅ **vó?**  
Fógtẽ INQ sleep PFV 3SG.M (INQ) work PFV DISJ

‘Did Fógtẽ sleep or work?’

ALTERNATIVE QUESTION

(answer e.g. ‘He slept.’)

[ [ ... *mỹ* ... ] [ ... (*mỹ*) ... ] *vó* ]



With exclusive strengthening (Roelofsen 2015):

$\rightsquigarrow$  † $\boxplus(p \vee q)$

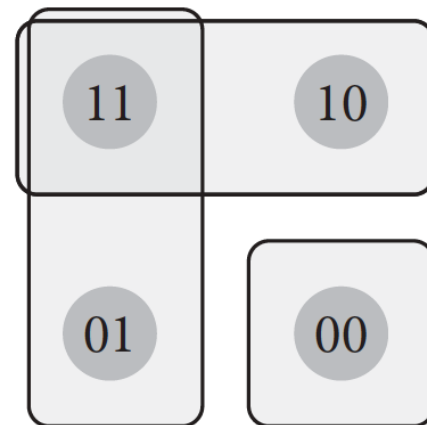
# Open alternative question?

(Still to be tested)

[ [ [ ... *mỹ* .... ] [ ... (*mỹ*) .... ] vó ] **INT** ]

~

?( $p \vee q$ )



# **Brief look at existentials and content questions**

## Declaratives with indefinite *ũ* ‘someone/some’ don’t have *mỹ*

(15) **ũ**                      *vỹ*              *jãn*               $\emptyset$ .  
someone    NOM              sing              PFV  
‘Someone sang.’

(16) *Gĩr*      **ũ**              *vỹ*              *Fógtě*      *vé*               $\emptyset$ .  
child      some      NOM      *Fógtě*      see              PFV  
‘Some child(ren) saw *Fógtě*.’



## Polar questions with an existential in context

(19) *Context: Today is the day for one of your children to clean the kitchen. You're at work and call home to see if someone has already cleaned the kitchen. You ask your husband over the phone:*

You:            **Ũ**                    **mỹ**    cozinha   jãnhkrig   Ø?  
                  someone   INQ    kitchen   clean       PFV  
                  'Did someone clean the kitchen?'

Husband: **Hỹ.**    /    **Vó.**  
                  yes    /    no  
                  'Yes.' / 'No.'





## A dialogue with both types of question

(21) Pakój: Ů                    mỹ            ãn            jãnhkrig    Ø?  
                  someone    INQ            house    clean            PFV  
                  ‘Did someone clean the house?’

PQ WITH EXISTENTIAL

Kórig: Hỹ.  
          ‘Yes.’

Pakój: Ů                    mỹ            ãn            jãnhkrig    Ø?  
                  someone    INQ            house    clean            PFV  
                  ‘Who cleaned the house?’

CONTENT QUESTION

Kórig: Fógtě tóg jãnhkrig Ø.  
          Fógtě TOP clean    PFV  
          ‘Fógtě cleaned it.’

## Content questions with *wh*-words (without *mỹ*)

- Kaingang also has dedicated *wh*-words such as *ne* ‘what’ and *hẽ* ‘where’.

(22) Fógtẽ vỹ kusã ki **ne** han Ø?  
Fógtẽ NOM morning in what make PFV  
‘What did Fógtẽ do this morning?’

(23) ã tỹ **hẽ** ra tĩg nẽ?  
2SG ERG where to go ASP  
‘Where are you going?’

## Complete data summary

|                       | single proposition<br>$p$ | disjunction<br>$(p \vee q)$ | existential<br>$\exists x.P(x)$ |
|-----------------------|---------------------------|-----------------------------|---------------------------------|
| assertion             | —                         | $m\tilde{y} + v\acute{o}$   | $\tilde{u}$                     |
| polar Q               | $m\tilde{y}$              | $m\tilde{y} + v\acute{o}$   | $\tilde{u} + m\tilde{y}$        |
| alternative/content Q |                           | $m\tilde{y} + v\acute{o}$   | $\tilde{u} + m\tilde{y}$        |

# **Conclusion and outlook**

## Summary of proposal

- $M\tilde{y}$  is not itself inquisitive, but it requires the presence of an inquisitive operator higher in the structure.
- $M\tilde{y}$  is a clausal marker that must be attached to a non-inquisitive clause that is part of a larger constituent that is inquisitive.
- This explains why  $m\tilde{y}$  can appear in disjunctive assertions, polar questions, alternative questions, and content questions.
- In particular, our analysis explains why the **same syntactic form** can be used as a disjunctive assertion, a polar question with disjunction, or an alternative question, depending on context.

## Comparison to other languages

- In several languages the same marker(s) are used in (a large subset of) disjunctive assertions, polar questions, alternative questions, content questions, and existential assertions.

These include:

- Japanese (Kuroda 1965, Kratzer & Shimoyama 2002, Szabolcsi 2015, a.o.)
- Malayalam (Jayaseelan 2008)
- Sinhala (Slade 2011)
- Tlingit (Cable 2010)
- Yucatec Maya (Anderbois 2011)
- Unlike most (or maybe even all) of these languages, Kaingang *mỹ* does not appear in existential assertions.

## Japanese (Slade 2011:2)

(24) a. gakkoo-ni ik-imas-u ka?  
school-to go-POL-PRES KA  
'(Are you) going to school?'

(Yoshida & Yoshida 1996)

b. John-ga nani-o kaimasita ka?  
John-NOM what-ACC bought-POL KA  
'What did John buy?'

(Hagstrom 1998:15)

(25) John-ka Bill-ka-ga hon-o katta.  
John-KA Bill-KA-NOM book-ACC bought.  
'John or Bill bought books.'

(Kuroda 1965:85)

(26) dare-ka -ga hon-o katta.  
who-KA-NOM book-ACC bought.  
'Someone bought books.'

(Kuroda 1965:97)



## Kaingang *mỹ* vs. Japanese *ka*

- *Ka* can attach to non-clausal disjuncts, whereas *mỹ* is exclusively clausal.
- *Ka* appears on both disjuncts, whereas *mỹ* is only obligatory on the first disjunct.
- According to Szabolcsi, in Japanese, the disjunctive connective itself is phonologically null.
- The fact that Kaingang has an overt disjunctive connective provides additional support for Szabolcsi's analysis.

## Why no $m\tilde{y}$ in existential assertions?

- If  $m\tilde{y}$  is licensed by a higher inquisitive operator, why does it not appear in existential assertions?
- We do not have a complete answer at this time.

# Speculations

1. Perhaps existential assertions are non-inquisitive in Kaingang.
  - To avoid circularity, we would need independent evidence for an inquisitiveness difference between Japanese and Kaingang existentials.
2. Perhaps the ban on *mỹ* in existential assertions has a syntactic explanation.
  - *Mỹ* is exclusively a clausal-level element; it cannot attach to nominals. In sentences containing both existentials and *mỹ*, *mỹ* is not in the scope of the existential. (Ryan Bochnak, p.c.)
3. Perhaps languages simply choose different subsets of inquisitive constructions to overtly mark.
  - Compare with irrealis marking cross-linguistically.

## Other questions for further research

- Why is *mỹ* obligatory in the first disjunct but optional in the second?
- Is it a coincidence that the disjunctive connective *vó* ('or') and the negative response particle *vó* ('no') are homophonous?
- Are there any semantic effects of prosody and intonation in Kaingang?
- Do the Kaingang question types behave similarly to English with respect to presuppositions?

# Acknowledgements

We are very grateful to our Kaingang consultants Darci Fógte Bernardo, Cristielly Pakój Bandeira, and Danusa Kórig Bernardo Fernandes for providing the data presented here.

For helpful feedback, thanks to members of the UBC Q-lab (Questions Lab), in particular Ryan Bochnak.

This research was funded in part by the Social Sciences and Humanities Research Council of Canada, Insight Grant #435-2021-0900.

Thank you to Beste Kamali and other organizers of this workshop.

# References

- AnderBois, S. 2011. *Issues and Alternatives*. Ph.D. dissertation, University of California at Santa Cruz.
- Cable, S. 2010. *The Grammar of Q: Q-particles, Wh-Movement and Pied-Piping*. Oxford: OUP.
- Ciardelli, I., J. Groenendijk & F. Roelofsen. 2019. *Inquisitive Semantics*. Oxford: OUP.
- Groenendijk, J. & F. Roelofsen. 2009. Inquisitive semantics and pragmatics. In J.M. Larrazabal & L. Zubeldia (eds.), *Meaning, Content and Argument, Proceedings of the ILCLI International Workshop on Semantics, Pragmatics and Rhetoric*, 41-72.
- Instituto Brasileiro de Geografia e Estatística (IBGE) 2012. *Censo demográfico 2010 – Características gerais dos indígenas: resultados do universo*. Rio de Janeiro.
- Jayaseelan, K.A. 2008. Question particles and disjunction. Manuscript, The English and Foreign Languages University, Hyderabad.
- Kratzer, A. & J. Shimoyama. 2002. Indeterminate pronouns: The view from Japanese. *The proceedings of 3rd Tokyo conference in psycholinguistics*, 1-25. Tokyo: Hituzi Shyobo.
- Kuroda, S.-Y. 1965. *Generative Grammatical Studies in the Japanese Language*. Ph.D. dissertation, MIT.
- Roelofsen, F. 2015. The semantics of declarative and interrogative lists. Manuscript, ILLC, University of Amsterdam
- Roelofsen, F. 2019. Two alternatives for disjunction: an Inquisitive reconciliation. M. Zimmermann, K. von Heusinger, & V.E. Onea Gaspar (eds.), *Questions in Discourse*. Leiden: Brill, 251-279.
- Slade, B. 2011. *Formal and Philological Inquiries into the Nature of Interrogatives, Indefinites, Disjunction, and Focus in Sinhala and Other Languages*. Ph.D. dissertation, University of Illinois, Urbana-Champaign.
- Szabolcsi, A. 2015. What do quantifier particles do? *Linguistics & Philosophy* 38:159-204.
- Wiesemann, U. 1971. *Kaingáng-Português, Português-Kaingáng*. Brasília: SIL/Funai.
- Wiesemann, U. 2002. *Kaingang-Português: Dicionário bilíngue*. Curitiba: Editora Evangélica Esperança.