Use of null-arguments in *wh*-questions: the view from Malayalam and Telugu

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Subject vs. Object wh-questions

(1) a. Subject wh-question
         Who is pushing the ant?

     b. Objuect wh-question
         Who is the hippo pushing ____?

Previous studies

Previous studies on the acquisition of *wh*-questions have detected some asymmetries, both in production and in comprehension:

- *Subject vs. object wh-questions:*
  Subject *wh*-questions are acquired earlier than object *wh*-questions
  (Yoshinaga 1996; Stavrakaki 2006; Guasti, Branchini, and Arosio 2012; Sauerland et al. 2016, a.o.);

- *Who-questions vs. which-questions:*
  Who-questions are easier than *which N*-questions (Ervin-Tripp 1970; Friedmann, Belletti, and Rizzi 2009; Guasti, Branchini, and Arosio 2012; Sauerland et al. 2016).

Current study

Aims of this study:

1. To find out whether these asymmetries hold also in two Dravidian and less-studied languages, Malayalam and Telugu.

2. To find out whether characteristic properties of these languages such as the availability of null arguments affect the acquisition of *wh*-questions differently.

Current study

Subject *wh*-question:

(2) *aa -aa   urumbi-ne un t -i-ko   pook-un n -at ?-at ?*   *Malayalam*
    who-COP ant-ACC   push-PTCP with

   'Who is pushing the ant?'

(3) *ci ma-ni evaru ne utunna ru?*   *Telugu*
    ant-ACC who   push-PRS

   'Who is pushing the ant?'

Object *wh*-question:

(4) *aa -e-yaa   puucca-ka o art t -un n -at ?*   *Malayalam*
    who-ACC-COP cat-PL   wake-PRS-NMZ

   'Who are the cats waking?'

(5) *pilli evaru mēlkoṇṭundi?*   *Telugu*
    cat   who   wake-PRS

   'Who is the cat waking?'

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Participants

1. Malayalam:
   - 16 children: 4;2–5, $M = 4,7$
   - 10 adults
2. Telugu:
   - 15 children: 4;3–5;3, $M = 4;6$
   - 10 adults

Materials

- Types of target questions (6 items each):

(6) a. Who is pushing the ant?   [Who S]

     b. Who is the hippo pushing?   [Who O]

     c. What is the boy hiding?   [What O]

     d. Which giraffe is pushing the cow?   [Which S]

     e. Which duck is the rabbit pushing?   [Which O]

- 3 warm-up items, followed by the experimental items in 2 blocks:
  1st block: (6a)-(6c); 2nd block: (6d)-(6e)
- Experimental design modeled after Guasti, Branchini, and Arosio (2012).
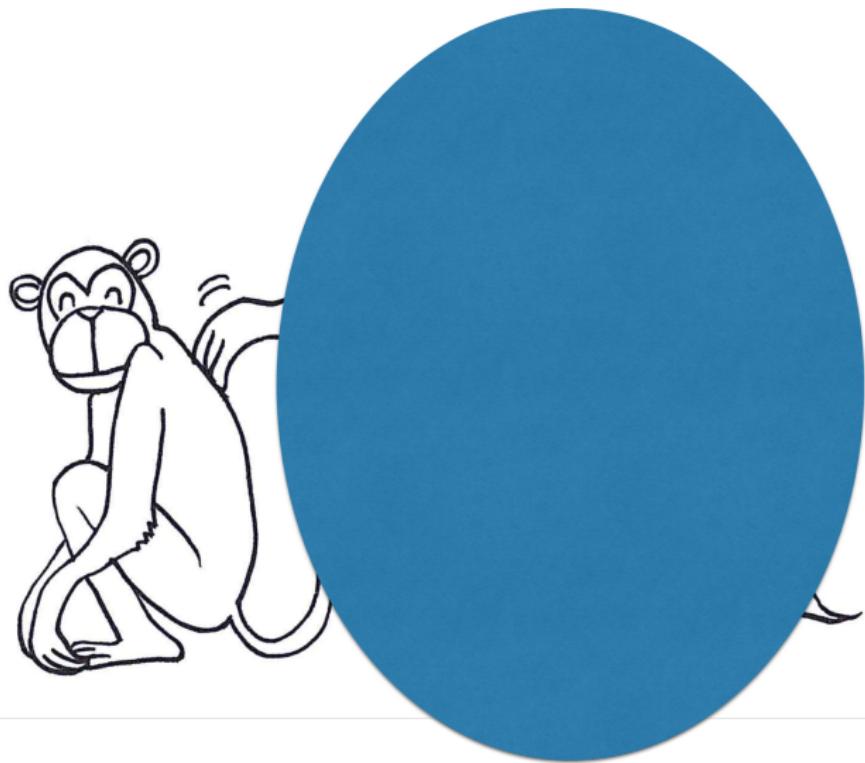
Figure: *Who is scratching the monkey?*

Examples
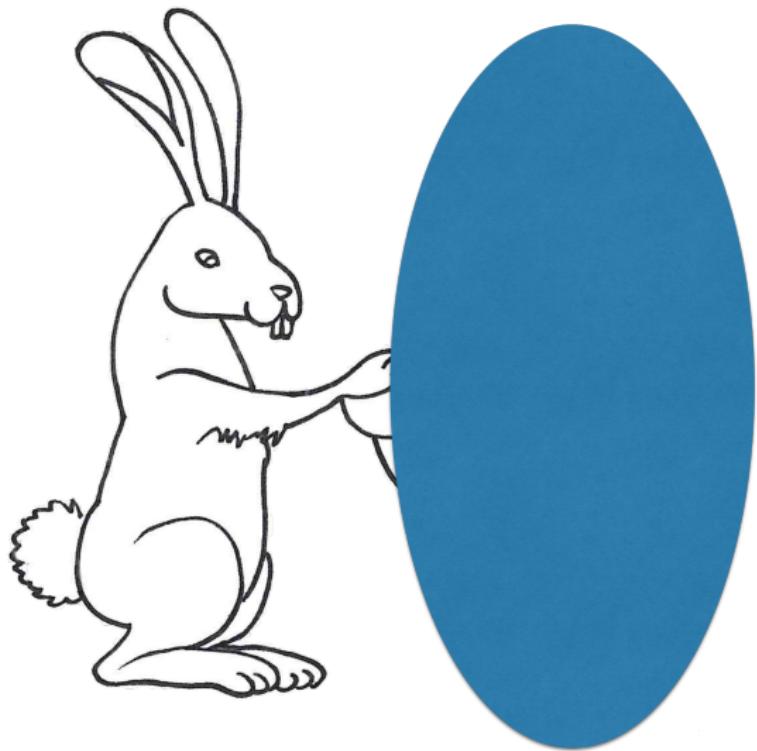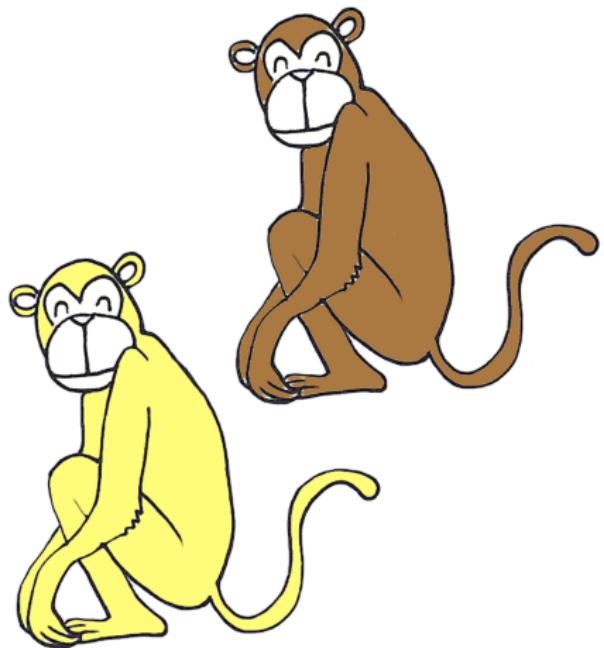

Figure: *Who is the rabbit scratching?*

Examples
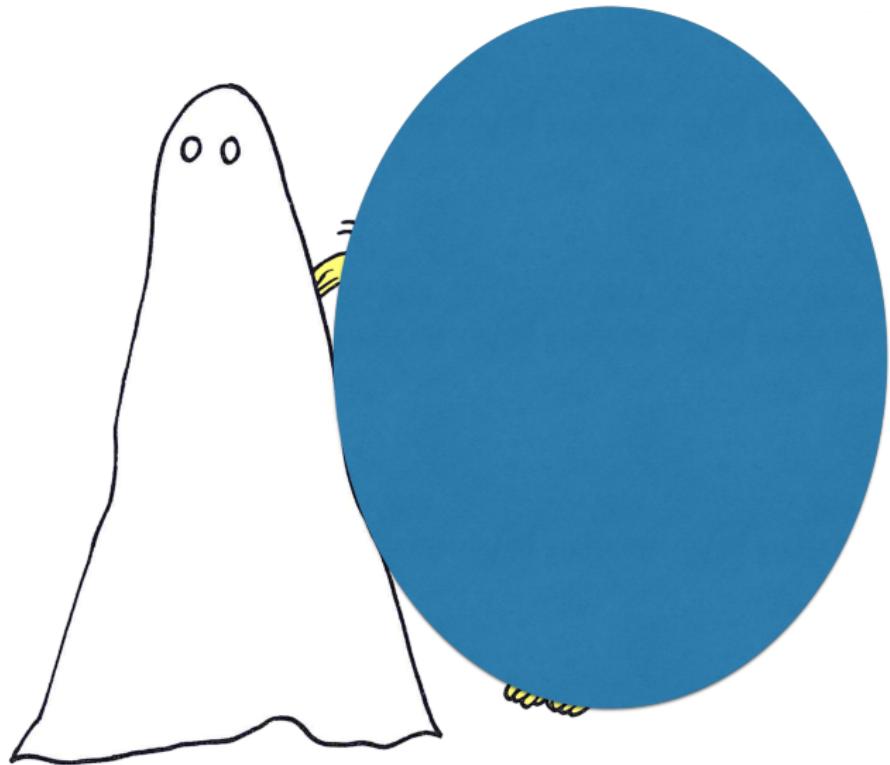
Figure: *Which monkey is scratching the ghost?*

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Adult-like responses

Proportion of adult-like responses (Malayalam)

Proportion of adult-like responses (Teugu)
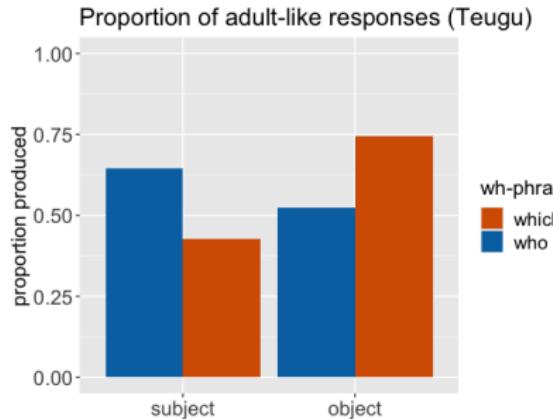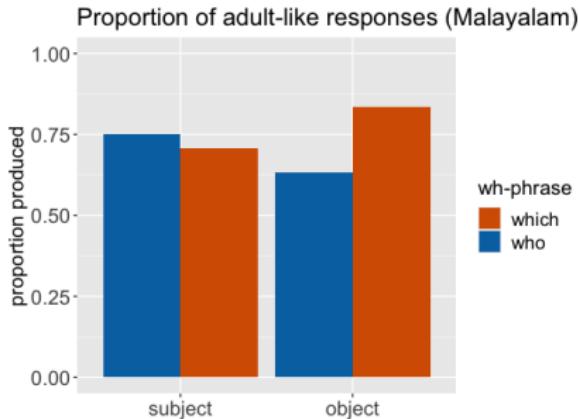
- Not significant but approaching significance between subject and object *wh*-questions in Malayalam (Fisher's exact test: p = .05068)

- Object *wh*-questions were significantly less likely to be adult-like in Telugu (p < .01)

- No difference between *who*-questions and *which*-questions (Malayalam: p = 1, Telugu: p = .7504)

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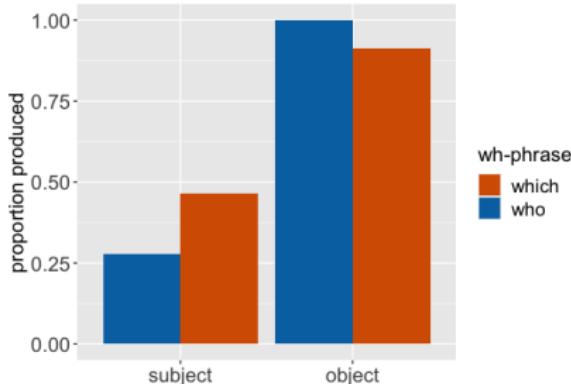
Proportion of null arguments

In order to check the proportion of null arguments:
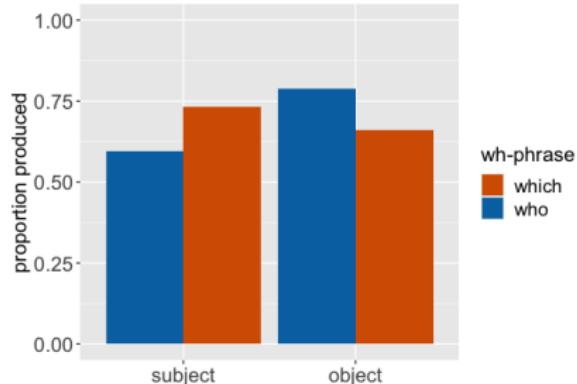
- we coded for the *wh*-phrase used
- we coded for the type of *wh*-question (subject vs. object) that were produced
- we checked the use of null arguments based on the produced form
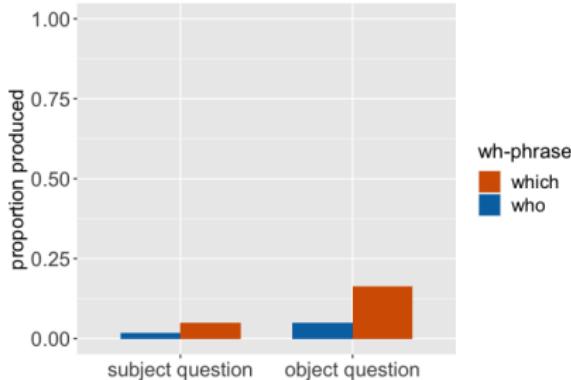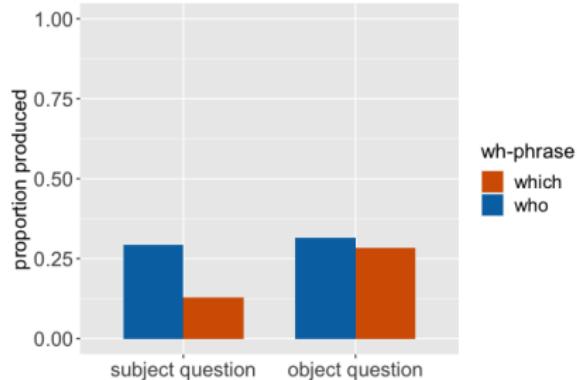
Proportion of null arguments

- The proportion of null arguments is significantly higher when children produce object *wh*-questions for Malayalam (Fisher's exact test: $p < .01$) but not for Telugu.

- In both languages, the proportion of null arguments is significantly higher among children for both subject and object *wh*-questions than among adult participants (Fisher's exact test: $p < .01$).

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Summary

- *Subject vs. object wh-questions:* subject *wh*-questions are produced more accurately than object *wh*-questions only in Telugu

- *Who-questions vs. which-questions:* no advantage of *who*-questions compared to *which*-questions in both languages

- *Null arguments:*
  - Children produced more *wh*-questions involving null arguments that adults
  - In Malayalam, children produced more object *wh*-questions involving null arguments that subject *wh*-questions
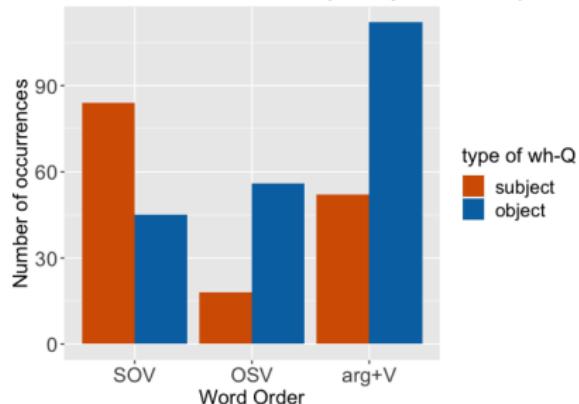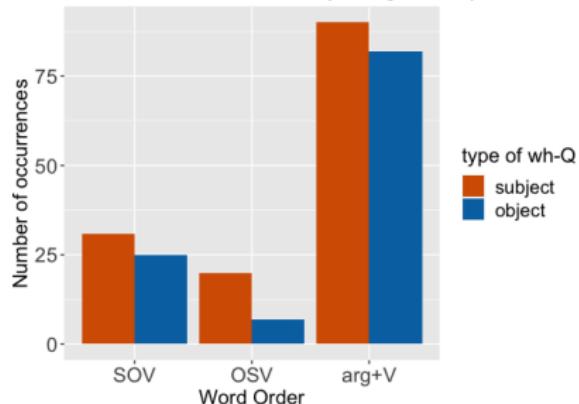
Why did children produce more null arguments than adults?
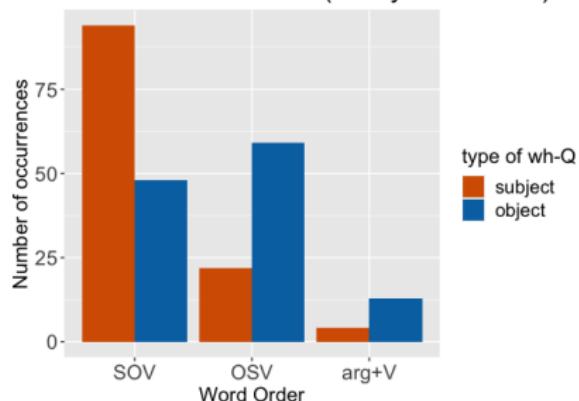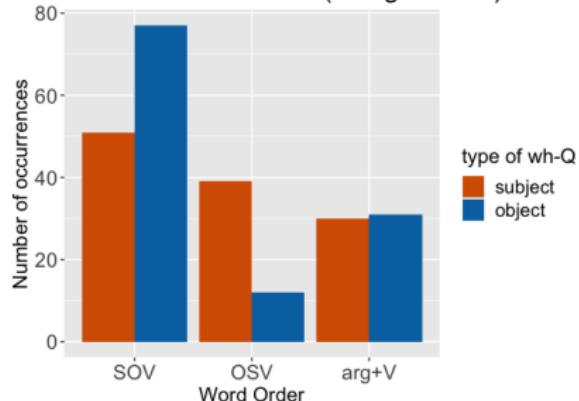
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Word orders

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Word orders

Malayalam:

- Participants tend to produce the *wh*-phrase clause-initially.
- The word order pattern is similar across age groups.

Telugu:

- The *wh*-phrase either appears immediately before the verb or clause-initially.
- The word order pattern is similar across age groups for subject *wh*-questions.

Malayalam

Subject *wh*-question:

(7) a.   *Wh*-SUBJECT Object Verb   SOV

     b.   *Wh*-SUBJECT ~~Object~~ Verb   SV

Object *wh*-question:

(8) a.   Subject *Wh*-OBJECT Verb   SOV

     b.   *Wh*-OBJECT Subject ____ Verb   OSV

     c.   ~~Subject~~ *Wh*-OBJECT Verb   OV

> Dropping subjects in object *wh*-questions is a strategy used by Malayalam
> children to have the *wh*-phrase appear in clause initial position.

Telugu

Subject *wh*-question:

(9)   a.   *Wh*-SUBJECT Object Verb   SOV

       b.   Object *Wh*-SUBJECT ____ Verb   OSV

       c.   *Wh*-SUBJECT ~~Object~~ Verb   SV

Object *wh*-question:

(10)   a.   Subject *Wh*-OBJECT Verb   SOV

       b.   ~~Subject~~ *Wh*-OBJECT Verb   OV

> Dropping an argument may be a strategy used by Telugu children to have
> the *wh*-phrase immediately preceding the verb (even when not necessary,
> i.e., for object *wh*-questions).

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Conclusion

- *Subject vs. object wh-questions:* subject *wh*-questions are produced more accurately than object *wh*-questions only in Telugu.

- *Who-questions vs. which-questions:* no advantage of *who*-questions compared to *which*-questions in both languages.

- *Null arguments:*
    - ▶ Children produced more *wh*-questions involving null arguments that adults.
    - ▶ Dropping an argument may be a strategy used by children that help them produce adult-like questions.

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