

# What native speakers really know about their reflexives and pronouns

Perusing Bangla and Malayalam

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# Theoretical background

What  
native  
speakers  
really  
know  
about  
their  
reflexives  
and  
pronouns

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Roy

Theoretical  
back-  
ground

Describing  
the  
pronouns  
&  
reflexives

The three  
tasks

Task 1: the  
object task

Task 2: the  
non-  
contrastive  
Spec DP task

Task 3: the  
contrastive  
Spec DP task

Takeaways

References

Three language tasks were designed to study the syntactic and pragmatic distribution of the reflexives and pronouns in adult Bangla and Malayalam as a precursor to an acquisition study, based on the following:

- the Canonical Binding Theory (Chomsky, 1981, 1986)
- Binding and reflexivity (Reinhart & Reuland, 1993; Reuland, 2015) are licensed at the C-I interface.
- Rule I (Reinhart, 1983; Grodzinsky & Reinhart, 1993; Reinhart, 2006), an interface rule of reference resolution, replaces Principle C. It also accounts for cases where the antecedent does not c-command the reflexive (eg. The men who killed *him* hated *John*).
- the syntactic residue of anaphora resolution is an Agree operation between the anaphor and the antecedent (Reuland, 2011).

# Describing Bangla and Malayalam pronouns

- Bangla (PERSON, NUMBER, HONORIFICITY, PROXIMITY, REFERENTIALITY)
  - (1) object pronouns must not be bound by the nearest subject.
    - a. the *o*-set (eg. *oke* 'himself/herself')
    - b. the *je*-set (eg. *take* 'himself/herself')
  - (2) Spec DP pronouns can be bound by the nearest subject (*or* 'his/her', *tar* 'his/her')
- Malayalam (PERSON, NUMBER, GENDER, PROXIMITY)
  - (3) object pronouns must not be bound by the nearest subject (eg. *ava[le/avane* 'herself/himself (DO)', *ava[lu/avanu* 'herself/himself (IO)').
  - (4) Spec DP pronouns can be bound by the nearest subject (eg. *ava[ude/avante* 'her/his')

# Describing Bangla and Malayalam reflexives

- Bangla (NUMBER)

- (5) object reflexives must be bound by the closest subject (eg. *nidze-ke* 'self.SG.ACC')
- (6) spec DP reflexives must be bound by the closest subject (eg. *nidzer* 'self.SG.GEN')

- Malayalam (PERSON, NUMBER)

- (7) object reflexives must be bound by the closest subject:
  - a. pro-SELF (eg. *avane-tanne* 'himself')
  - b. SELF-SELF (eg. *tanne-tanne* 'herself/himself')
- (8) Spec DP reflexives may be bound by the closest subject (eg. *tan-te* 'self.GEN')
- (9) Simplex *taan* has the potential to be long-distant bound

- Malayalam

[*anju<sub>i</sub>* [*tante<sub>i/j/k</sub>* *sahodhari*-(y)-e *adikyunna*thə] *Krishnan<sub>j</sub>* *kandu enna*] *unni<sub>k</sub>*  
Anju self's sister-ACC beat.PART Krishnan saw COMP Unni  
*paraṇṇu*  
said

'Unni<sub>k</sub> said that Krishnan<sub>j</sub> saw Anju<sub>i</sub> beating self<sub>i/j/k</sub>'s sister'

# Objectives

- what elements do these languages allow to be bound locally?
- do speakers permit the reflexive and both pronouns in Spec DP to be bound [as in (10)], as literature (Sengupta, 2000; Jayaseelan, 2017a) suggests. If yes, is there high or/and equal preference for both in this syntactic position. What do their choices tell us?

(10) Bangla

mala<sub>i</sub> **nidzer<sub>i</sub>/or<sub>i</sub>** boi portʃtʃ<sup>h</sup>e  
mala self's/her book reading

‘Mala<sub>i</sub> is reading her<sub>i</sub> book’

- do speakers allow apparant violations of Principle C?

(11) Malayalam (also very very robust in Bangla)

**anuup<sub>i</sub> anuup-in-te<sub>i</sub>** atʃtʃan-te kai pidikkuke aana  
Anoop Anoop-in-GEN father-GEN hand hold.PROG be.PRS

‘Anoop<sub>i</sub> is holding Anoop’s<sub>i</sub> father’s hand’

- Do speakers show the potential to use Rule I?

# The study in question

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back-  
ground

Describing  
the  
pronouns  
&  
reflexives

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- Bangla: 142 participants
- Malayalam: 97 participants
- Tasks 1 and 2 were felicity judgement tasks
- Task 3 was a choice task

# Task 1: the object task

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Theoretical background

Describing the pronouns & reflexives

The three tasks

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Task 2: the non-contrastive Spec DP task

Task 3: the contrastive Spec DP task

Takeaways

References

Based on what you see in the picture below, judge whether it matches the description underneath it. If there is a match, mark MATCH. If there is a mismatch, mark MISMATCH.



pulishta nijeke mathay marchhe

☐ MATCH  
☐ MISMATCH

(i)

Based on what you see in the picture below, judge whether it matches the description underneath it. If there is a match, mark MATCH. If there is a mismatch, mark MISMATCH.



pulishta oke mathay marchhe

☐ MATCH  
☐ MISMATCH

(ii)

Based on what you see in the picture below, judge whether it matches the description underneath it. If there is a match, mark MATCH. If there is a mismatch, mark MISMATCH.



pulishta take mathay marchhe

☐ MATCH  
☐ MISMATCH

(iii)

**Figure:** the policeman is hitting x on th head: (i) the policeman is hitting **himself** on the head (ii) the policeman is hitting **him** on the head (iii) the policeman is hitting **him** on the head

# Four predicates for task 1

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and  
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Theoretical  
back-  
ground

Describing  
the  
pronouns  
&  
reflexives

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contrastive  
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(12) **the girl is looking at x in the mirror**

a. B: *meje-ʈa x-ke ajena-te dek<sup>h</sup>tʃtʃ<sup>h</sup>e*

b. M: *kutti kaŋŋaadiyil x-ine nokkunnu*

(13) **the boy is giving a kiss to x**

a. B: *tʃ<sup>h</sup>ele-ʈa x-ke hami ditʃtʃ<sup>h</sup>e*

b. M: *kutti x-inu umma kodukkunnu*

(14) **the policeman is hitting x (on the head)**

a. B: *pulif-ʈa x-ke mat<sup>h</sup>ay martʃtʃ<sup>h</sup>e*

b. M: *riʃi polisukaran x-ine adikkunnu*

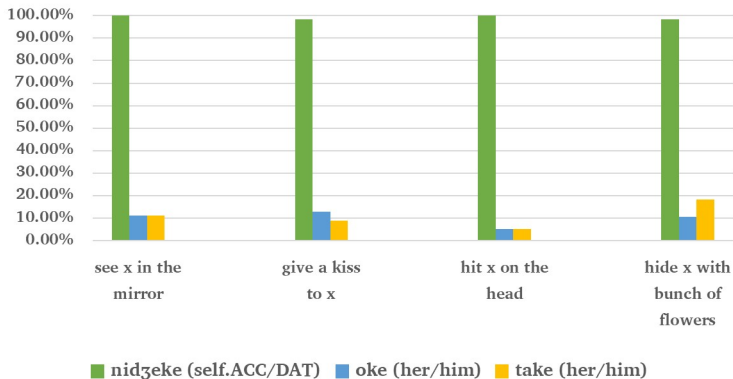
(15) **hide x with a bunch of flowers**

a. B: *meje-ʈa nidzeke p<sup>h</sup>uler tora dije d<sup>h</sup>eke rek<sup>h</sup>etʃtʃ<sup>h</sup>e*



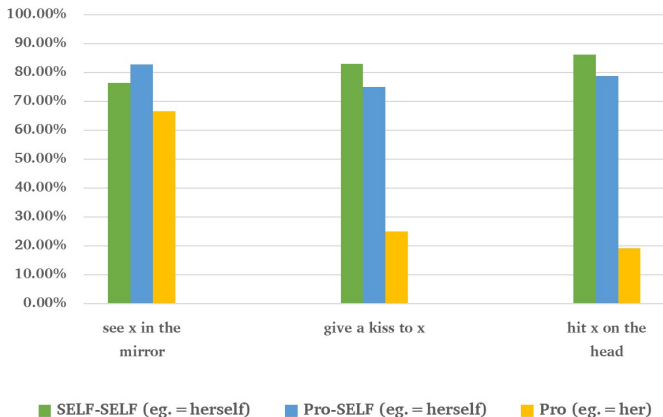
# Results of Task 1

Percentage that answered the triplet and marked a "Match"  
(Bangla)



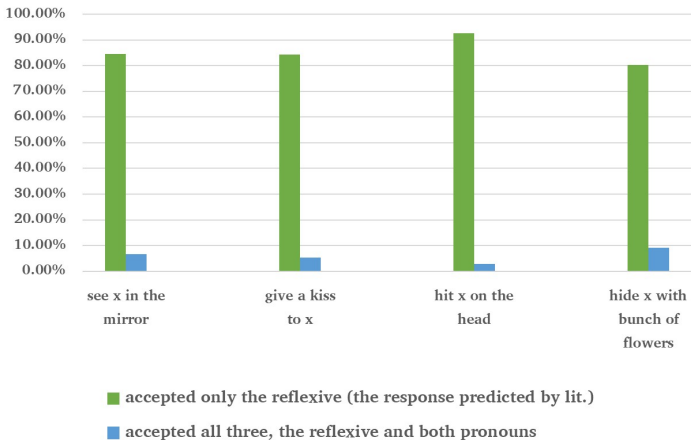
# Results of Task 1

Percentage that answered the triplet and marked a "Match"  
(Malayalam)



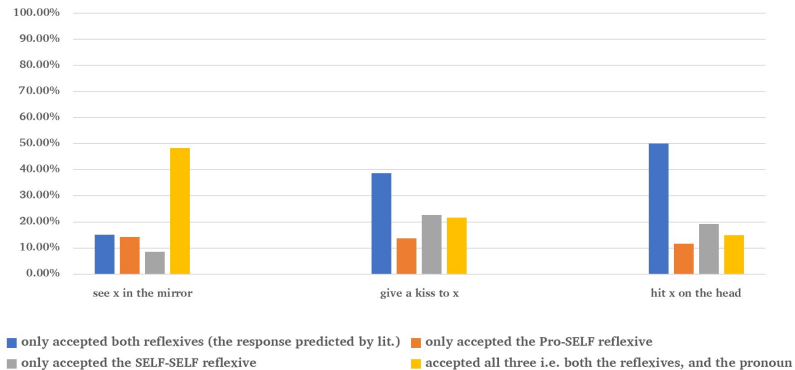
# Results of Task 1

Response types (Bangla)



# Results of Task 1

Response types (Malayalam)



# Discussing the results of Task 1

## Bangla

- the match percentage was the highest for the reflexive.
- Across predicates the most common response was to accept only the reflexive (the response predicted by the lit).

## Malayalam

- The highest match percentage predicate-wise:
  - “see x in the mirror”: Pro-SELF
  - “give a kiss to x”: SELF-SELF
  - “hit x on the head”: SELF-SELF
- In two out of three predicates, the most common response type was to accept both reflexives.
- However, in “look at x in the mirror”, the most favoured response type (48.39%) was to accept all three. It seems the “pronoun” has, at least in that context, a “reflexivizing function”(Reinhart & Reuland, 1993)

## Task 2: the non-contrastive Spec DP task



eta Shamir



eta Shamirer school bag

(i)

Based on what you now know about the character above, judge if the picture given below matches the description underneath it. If there is a match, mark MATCH. If there



Shamir nijer bag gochhachhe

☐ MATCH  
☐ MISMATCH

(ii)

**Figure:** (i) This is Shamir.....This is Shamir's school bag. (ii) Shamir is packing self's school bag

# Five predicates for task 2

(16) **Shamir is packing x's bag**

- a. B: *fomir x-er bag gotʃ<sup>h</sup>atʃtʃ<sup>h</sup>e*
- b. M: *famir x-inte bag pæk tʃeijuke aŋə*

(17) **Sheba is hugging x's sister**

- a. B: *ʃiba x-er bon-ke hug kortʃtʃ<sup>h</sup>e*
- b. M: *ʃi:ba x-inte anijattije kettipidikkunnu*

(18) **Hrishi is giving x's colour pencil to the girl**

- a. B: *riʃi x-er colour pencil-ta meye-take ditʃtʃ<sup>h</sup>e*
- b. M: *riʃi x-inte kalar pensil penkuttikku koḍukkunnu*

(19) **The hen is looking at x's eggs**

- a. B: *murgi-ta x-er dim-gulo-ke dek<sup>h</sup>tʃtʃe*
- b. M: *ko:ɪ avaɭude muttakale nokkunnu*

(20) **Sam is taking a photograph with x's trophy**

- a. B: *sæm x-er tʃofi-r songe tʃ<sup>h</sup>obi tultʃtʃ<sup>h</sup>e*
- b. M: *sæm x-inte tʃofijumaji foʔo eḍukkunnu*

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reflexives  
and  
pronouns

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Theoretical  
back-  
ground

Describing  
the  
pronouns  
&  
reflexives

The three  
tasks

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object task

Task 2: the  
non-  
contrastive  
Spec DP task

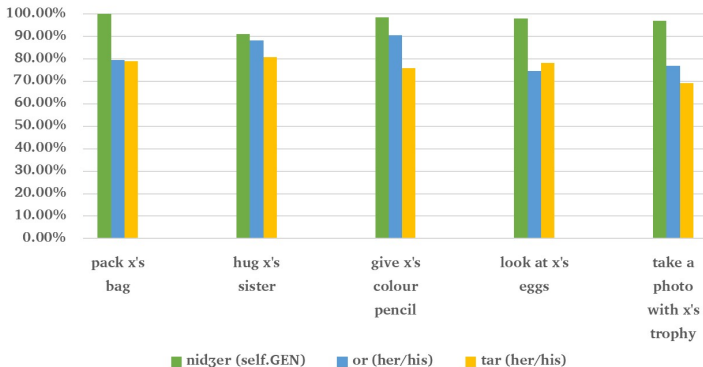
Task 3: the  
contrastive  
Spec DP task

Takeaways

References

# Results of Task 2

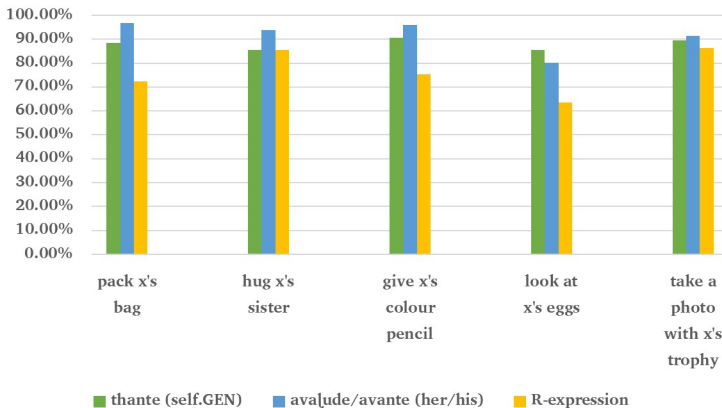
Percentage that answered the triplet and marked a "Match"  
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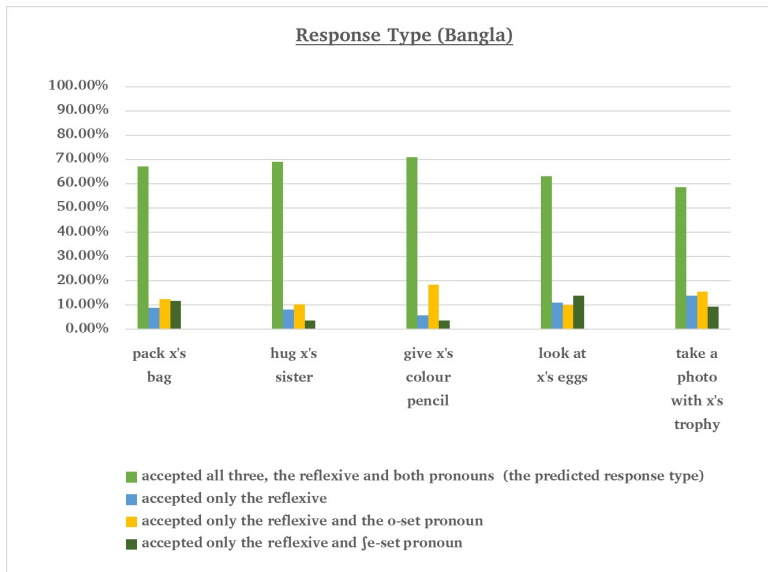


# Results of Task 2

Percentage that answered the triplet and marked a "Match"  
(Malayalam)

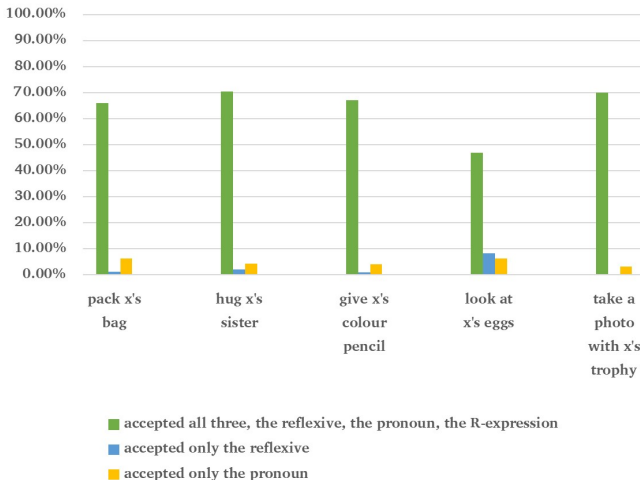


# Results of Task 2



# Results of Task 2

Response Type (Malayalam)



# Discussing the results of Task 2

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native  
speakers  
really  
know  
about  
their  
reflexives  
and  
pronouns

Yangchen  
Roy

Theoretical  
back-  
ground

Describing  
the  
pronouns  
&  
reflexives

The three  
tasks

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object task

Task 2: the  
non-  
contrastive  
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Takeaways

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## Bangla

- the match percentage was the highest for the reflexive.
- the primary response type across all predicates was to accept all three i.e. the reflexive and both pronouns (as predicted by the literature).
- the o-set is reserved for [ + HUMAN] antecedents, while the je-set is accepted for all animates
- Upto 13.85% of the participants only accepted the reflexive, indicating their awareness that the pronouns may also yield a deictic reading, thus rejecting it.

## Malayalam

- the match percentage was highest for the pronoun (85.42% to 96.88%), not the reflexive, except in “look at x’s eggs” (non-human antecedent).
- the majority response type across predicates was to accept all three i.e. the reflexive and both pronouns (as predicted by the literature).
- **why is the pronoun preferred more than the reflexive?** probably due to the potential long-distance binding properties (Jayaseelan, 1999, 2017b) of the simplex *taan*.

# Task 3: the contrastive Spec DP task

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Theoretical background

Describing the pronouns & reflexives

The three tasks

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Takeaways

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Above is a set of two pictures. Based on what you see depicted in the pictures, fill the blank in the sentence with the appropriate option.

meyeta \_\_\_\_ gaye jol dhalchhe. kintu chheleta beraltar  
gaye jol dhalchhe.

- ☐ nijer  
☐ or  
☐ tar

(i)

Above is a set of two pictures. Based on what you see depicted in the pictures, fill the blank in the sentence with the appropriate option.

chheleta beraltar gaye jol dhalchhe. kintu meyeta \_\_\_\_  
gaye jol dhalchhe.

- ☐ nijer  
☐ or  
☐ tar

(ii)

(i) **Blank preceding the Linguistic Context (LC)** [The girl]<sub>DP</sub> is pouring water on \_\_\_\_'s body. But [the boy]<sub>DP</sub> is pouring water on [the cat]<sub>DP</sub>'s body.

(ii) **Blank succeeding the Linguistic Context (LC)** [the boy]<sub>DP</sub> is pouring water on [the cat]<sub>DP</sub>'s body. But [The girl]<sub>DP</sub> is pouring water on \_\_\_\_'s body.

# Task 3: the contrastive Spec DP task

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and  
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Theoretical  
back-  
ground

Describing  
the  
pronouns  
&  
reflexives

The three  
tasks

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non-  
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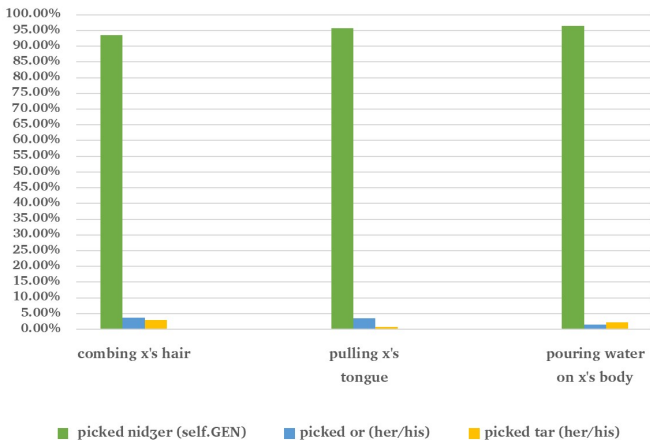
References

- The blank was either to be filled with the reflexive (*nidzer*) or one of the two pronouns (*or*, *tar*):

- (21) a. **Shathi is combing** \_\_\_ 's hair, B:  $\text{ʃat}^{\text{hi}}$  \_\_\_ -er  $\text{tʃul atʃratʃtʃ}^{\text{he}}$   
b. **the boy is pulling** \_\_\_ 's tongue, B:  $\text{tʃ}^{\text{he}}\text{ele-ta}$  \_\_\_ -er  $\text{dʒib tantʃ}^{\text{he}}$   
c. **the girl is pouring water on** \_\_\_ 's body, B:  $\text{me-ta}$  \_\_\_ -er  $\text{ga-e dʒol d}^{\text{h}}\text{altʃ}^{\text{he}}$

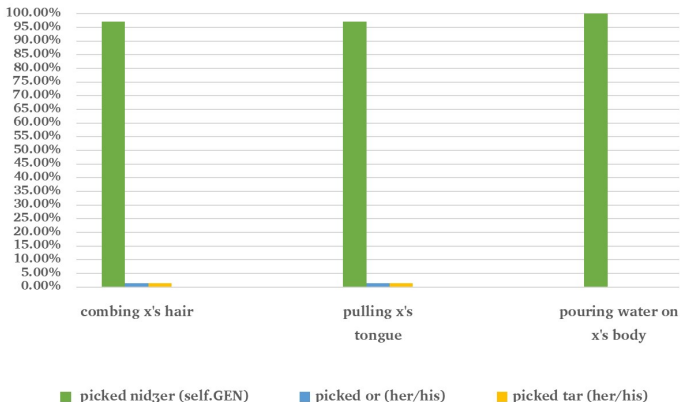
# Results of Task 3

## Blank preceding the LC



# Results of Task 3

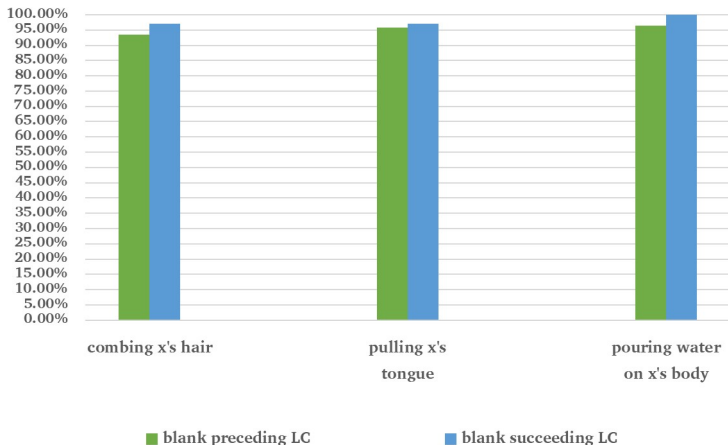
## Blank succeeding LC





# Results of Task 3

Percentage that picked the reflexive in each context



# Discussing the results of Task 3

- A reflexive can only have a bound reading, but a pronoun has three potential readings: (a) a bound reading (b) a free (deictic) reading and (c) a covaluation reading.
- Picking the pronoun when the linguistic context (henceforth, LC) succeeds the blank has two potential outcomes [(22) and (23)], but picking it when the LC precedes the blank has three potential outcomes [(22), (23) and (24)]. Participants, aware of these outcomes, chose the option that resulted in least ambiguity.

(22) the pronoun gets bound by the closest subject DP (available both when the blank precedes and when it succeeds the LC): **contextually felicitous**

“...<sub>[CP</sub> [<sub>DP</sub> the child]<sub>i</sub> [...<sub>[his<sub>i</sub> tongue]]]...”</sub>

(23) the pronoun gets a free reading (available both when the blank precedes and when it succeeds the LC): **contextually infelicitous**

“...<sub>[CP</sub> [<sub>DP</sub> the child]<sub>i</sub> [...<sub>[his<sub>j</sub> tongue]]]...”</sub>

(24) the pronoun gets a covaluation reading (available only when the blank succeeds the LC): **contextually infelicitous**

“<sub>[CP</sub> [<sub>DP</sub> the girl]<sub>k</sub> [<sub>[DP</sub> the dog]<sub>i</sub>-s]...] ]...<sub>[CP</sub> [<sub>DP</sub> the child]<sub>i</sub> [... <sub>[his/her<sub>k/l</sub> tongue]]]”</sub>

# Takeaways for the upcoming acquisition study

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back-  
ground

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pronouns  
&  
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- If adults are locally binding pronouns (like in Malayalam), we cannot immediately judge children doing the same as making an error.
- Animacy is a feature that plays a role in licensing the *o*-set and the *je*-set (Bangla), and *taan*-set and the *avan*-set (Malayalam)
- contrastive focus building is a good way to get the child to produce the reflexive in languages like Bangla.
- Adult speakers show awareness of covaluation readings and therefore have the potential to use Rule I.
- A binary distinction between “pronouns” and “anaphors” does not exist (Reinhart & Reuland, 1993; Reuland, 2015). The way forward is to study the acquisition of the (bundles of) morphosyntactic (and semantic?) features such when they generate pronoun and reflexive interpretations.

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