Ruling out an agent account of adjunct control in 4-5 year olds

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Adults require subject control into non-finite adjuncts:

(1) John$_1$ bumped Mary$_2$ after PRO$_{1/*2}$ tripping on the sidewalk

(2) John$_1$ was bumped by Mary$_2$ after PRO$_{1/*2}$ tripping on the sidewalk

What about children?

- Studies with 4-5 year old children have found lower rates of adultlike behavior for (2) than for (1) [8,13]
  - PRO in active (1) interpreted as John (adultlike)
  - PRO in passive (2) interpreted as Mary (non-adultlike)

What is responsible for children's behavior?

1. Non-adult grammar
2. Performance errors
3. Flaws in previous methodology

- Current study: are children's reported errors due to a non-adult grammar?

Agent Control Hypothesis

"Agent" strategy – children interpret PRO as main clause agent

⇨ Proposed to account for higher accuracy with actives but lower accuracy with passives [8,13]

- **Adultlike** behavior for active sentences:

subject
John$_1$ *bumped Mary$_2$ after PRO$_{1/*2}$ tripping on the sidewalk*
agent

- **Nonadultlike** behavior for passive sentences:

subject
John$_1$ was bumped by Mary$_2$ after PRO$_{1/*2}$ tripping on the sidewalk
agent

- Used passives in main clause to test interpretations of PRO in adjunct clause

- Agent account predicts agent control (non-adultlike); adult grammar predicts subject control (adultlike).

Ensuring that children understood the passive:

- "get" passives instead of "be" passives [4,5,7]
- CHILDES corpus search:
  - verbs most frequently used in "get" passive frame, reversible (animate agent)
    e.g. MOT: Humpty Dumpty got thrown by Dillon (Brent corpus, 0;10)
- Preamble to license use of passive as opposed to active:
  Experimenter: "Okay [puppet], what happened to [theme] in that story?"
  Puppet: "Oh, I know: [theme] got bumped by [agent] …."

TVJT

"**Diego got bumped by Dora after PRO getting a sandwich.**"

PRO = Dora/agent ⇨ true (non-adultlike)

PRO = Diego/subject ⇨ false (adultlike)

Design

CONTEXT	PRO = subject (adultlike)	PRO = agent (non-adultlike)
SUBJECT-CONTROLLER-TRUE	true	false
AGENT-CONTROLLER-TRUE	false	true

(roles of Diego (subject) and Dora (agent) counterbalanced across items and lists)

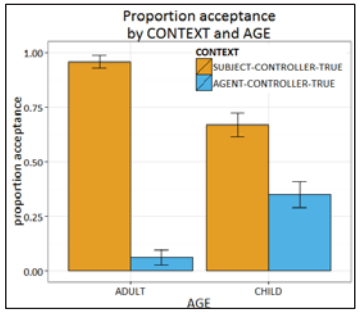
Predictions

With adult grammar:
- Accept SUBJECT-CONTROLLER-TRUE context
- Reject AGENT-CONTROLLER-TRUE context

With agent control strategy:
- Reject SUBJECT-CONTROLLER-TRUE context
- Accept AGENT-CONTROLLER-TRUE context

Results

- 47 children
  - 3;11-5;5
  - mean=4;9.5
- 24 adults
- 2x2 ANOVA, $p < .001$:
  - CONTEXT (SUBJECT-CONTROLLER-TRUE/ AGENT-CONTROLLER-TRUE)
  - AGE (CHILD/ADULT)*CONTEXT



Main effect of CONTEXT

- For both children and adults:
  - More likely to accept SUBJECT-CONTROLLER-TRUE
  - More likely to reject AGENT-CONTROLLER-TRUE

- Inconsistent with agent control strategy, consistent with adult grammar

AGE x CONTEXT interaction. Why?

Non-adultlike interpretations of PRO in (1) observed in other studies:

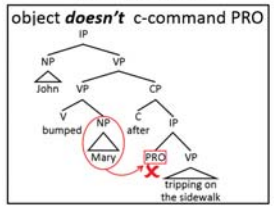
- John, Mary, Bill, … (free reference of PRO) [1,3,6,10,11,14,15]
- John or Mary (free internal reference) [1,3,6,10]
- Only Mary (strict object control) [1,3,6,10]

Future directions: what else can account for non-adultlike adjunct control?

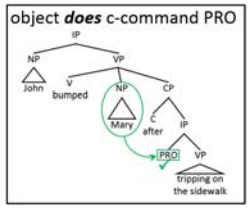
Some other non-adultlike grammar?

- Misattachment of adjunct to main clause?

Adult structure: object *doesn't* c-command PRO

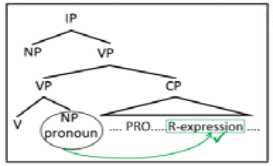


Low attachment: object *does* c-command PRO



Principle C → contrasting interpretations of object pronoun:

Adult structure:



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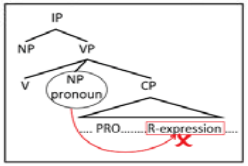


→ Gerard & Lidz (2014) found no Principle C effect for pronoun, same acceptance rates for children and adults

- Misanalysis of adjunct as a nominal

John bumped Mary after [the tripping on the sidewalk]

- pro instead of PRO

John$_1$ bumped Bill$_2$ after pro$_{1/2}$ tripping on the sidewalk

English:

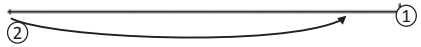
John$_1$ bumped Bill$_2$ after he$_{1/2}$ tripped on the sidewalk

- null indefinite instead of PRO

John$_1$ bumped Bill$_2$ after someone tripped on the sidewalk

Noise in online antecedent retrieval?

$\{^{+gr.\ antecedent}_{+NP}\}$ *bumped* $\{^{-gr.\ antecedent}_{+NP}\}$ *after PRO tripping …*



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