Ruling out an agent account of adjunct control in 4-5 year olds
Juliana Gerard & Jeffrey Lidz
University of Maryland

Adults require subject control into non-finite adjuncts:
1. John1 bumped Mary2 after PRO1/*2 tripping on the sidewalk
2. John1 was bumped by Mary2 after PRO1/*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

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 bumped Mary after PRO1/*2 tripping on the sidewalk
- Nonadultlike behavior for passive sentences:
  - subject: John was bumped by Mary after PRO1/*2 tripping on the sidewalk

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

Predictions
With adult grammar: With agent control strategy:
- Accept SUBJECT-CONTROLLER-TRUE context - Reject SUBJECT-CONTROLLER-TRUE context
- Accept AGENT-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: Low attachment:
    - PRO = agent ⇒ true (non-adultlike)
    - PRO = subject ⇒ false (adultlike)
  - Misanalysis of adjunct as a nominal
    - John bumped Mary after [the tripping on the sidewalk]
    - pro instead of PRO
  - john, bumped Bill2 after pro1/2 tripping on the sidewalk
  - null indefinite instead of PRO
    - John bumped Bill, after someone tripped on the sidewalk

Noise in online antecedent retrieval?
- [Pr. antecedent] bumped [“gr. antecedent”] after PRO tripping ...

References
[7] Inconsistent with agent control strategy, consistent with adult grammar


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] ….”

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] ….”