When Children accept Under-Informative Statements: Lack of Competence or Pragmatic Tolerance?

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Introduction

- Age of acquisition of scalar implicatures is unclear (ranging from 5 – 10 years old) [4][5]
- Pragmatic Tolerance Account proposes that young children may notice, but not penalize pragmatic violations (e.g., accept a statement such as “some of the apples are red” when all of the apples are red) [2][4]
- Binary Judgment Tasks obscure children’s competence with implicatures [2][4]
- What happens when children accept an under-informative statement?
- What can RTs tell us?

Hypotheses

Underinformative statements in a binary task:
- Pragmatically competent children: REJECT
- Pragmatically oblivious children: ACCEPT
- Pragmatically tolerant children: ACCEPT

Underinformative statements in a graded task: [4][5]
- Pragmatically competent children: SMALL REWARD
- Pragmatically oblivious children: BIG REWARD
- Pragmatically tolerant children: SMALL REWARD

Response times for under-informative statements:
- Pragmatically competent: rejection of false statements
- Pragmatically oblivious: acceptance of underinformative statements
- Pragmatically tolerant: acceptance of underinformative statements

Method

Participants: 75 neuro-typical Dutch children (43 girls)
- age 4.0 – 9.8 (mean age = 6.3)
- Ad hoc scales: e.g., <a shoe, a shoe and a ball>

Conditions:
- Correct (1 object)
  - “In the basket, there is a shoe”
- Incorrect (1 object)
  - “In the basket, there is a hat”
- Correct (2 objects)
  - “In the basket, there is a shoe and a ball”
- Incorrect (2 objects)
  - “In the basket, there is a shoe and a hat”

Materials: 8 sets of 3 monosyllabic words (binary task: objects; ternary task: animals)
- 40 trials: 8 items in 5 conditions

Procedure: Presentation of pre-recorded utterance
- Presentation of picture
- Button press by participant

Binary Judgment Task: “Did the girl say it right?”
Ternary Judgment Task: “Give the girl a strawberry”

Results

Under-informative statements were more difficult than correct and incorrect statements (more errors and longer RTs)

Correct statements received mostly large strawberries
Incorrect statements barely received large strawberries
Rewards for under-informative statements more mixed

Focus on under-informative condition:

Discussion

- Binary Judgment Task allegedly shows:
  - 22 children have acquired under-informativeness
  - 20 children have not acquired under-informativeness
- Ternary Judgment Task shows that of those 20 children:
  - 7 children are pragmatically oblivious
  - 6 children are pragmatically tolerant

Pragmatically tolerant children notice the pragmatic violation (longer RT), but still overrule its rejection

Remaining question: Is the additional time needed to...
- Generate implicature?
- Notice pragmatic violation?

Results suggest a developmental pattern:
1) pragmatically oblivious
2) pragmatically tolerant
3) pragmatically competent

References

More info
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