

## Coding and Analyzing Semantic-Syntactic Relations with a Child who Uses Aided AAC

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### Background

- Little is known regarding how children who use graphic symbols learn to use early combinatorial language
- The acquisition of such syntax is key for children using aided AAC
- What we know:
  - Preschoolers who use graphic symbols to communicate tend to produce single symbol messages (Binger & Light, 2008)
  - When children do use multi-symbol messages, they tend to violate English syntactic rules (Binger & Light, 2008; Smith & Grove, 2003)
- To develop effective intervention programs, the acquisition of language using aided AAC must be further investigated
  - One initial step: Examine the development and use of semantic-syntactic categories
- Current investigation: Post-hoc analyses of a study of a child who used graphic symbols to communicate
  - Child originally was instructed in the use of three semantic-syntactic structures (Rowe, 2012)

### Method

#### Design

- Post-hoc analyses based on an experimentally controlled, single subject, multiple probe across targets study (Rowe, 2012)

#### Participant

- “Jorge,” age 5;1, developmentally delayed with motor speech impairment

#### Materials

- Puppets, Photographs, Dynavox 4

#### Measures

- Post-hoc analyses of two-term semantic-syntactic relations
  - Possessor-entity
  - Action-object
  - Attribute-entity

### Discussion

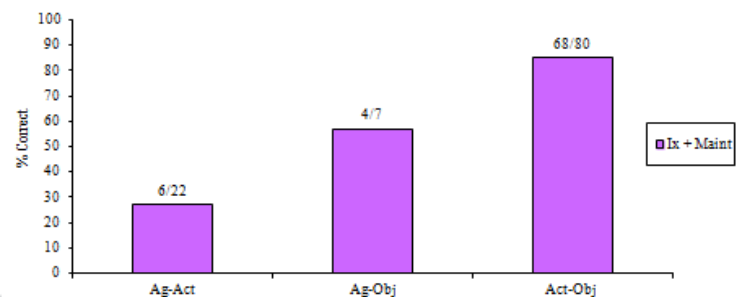
#### Possessor-entity

- Relatively few possessor-entity messages could be coded; low salience of the target may have contributed to these results

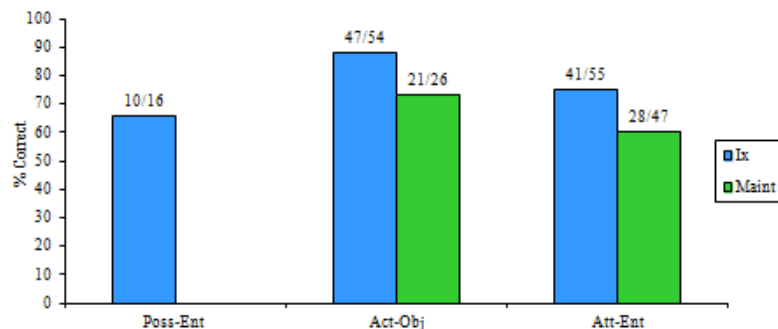
#### Action-object

- Jorge produced more action-object messages than agent-action and agent-object
  - Most aided AAC models were for action-object

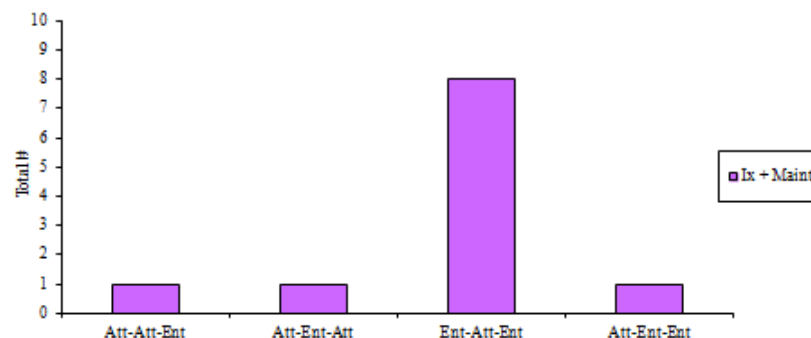
**Two-Term Agent-Action-Object Messages with Correct Word Order**



**Two-Term Messages with Correct Word Order**

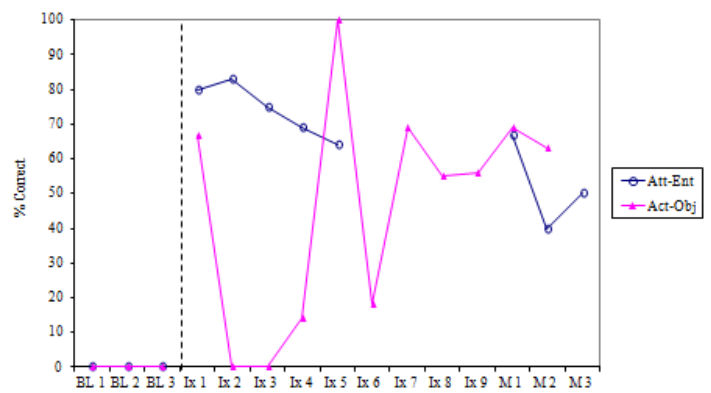


**Three-Term Messages Containing Attribute & Entity**



- Jorge produced more two-term messages than longer messages
    - Most aided AAC models were two-term models
- Attribute-entity
- Jorge acquired the target quickly and maintained accuracy
    - Saliency of the target, motivation, and familiarity with the task may have contributed to success
  - For 3-term productions, Jorge produced more entity-attribute-entity messages compared with other combinations
    - May reflect a tendency to begin graphic symbol messages by providing a context or focus for communication

Two-Term Messages with Correct Word Order by Session



Percent Codable Multi-Symbol Messages Across All Targets and Sessions

Target	Percent	Number
Possessor-Entity	19%	15/80
Action-Object	64%	136/213
Attribute-Entity	72%	133/186

Total Number of Agent-Action, Action-Object, and Agent-Object Combinations Across All Sessions

Target	2-term	3-term	3+-term
Various agent-action-object combinations	105	14	4

### Acknowledgements

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### References

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- Rowe, K., Binger, C., & Kent-Walsh, J. (2012; August). *Teaching semantic-syntactic categories to a child who uses AAC*. Poster presented at the 15<sup>th</sup> Biennial conference of the International Society of Augmentative and Alternative Communication. Pittsburgh, PA.
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