Assessing AAC Interaction III: Effect of Task Type on Co-Construction & Message Repair

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INTRODUCTION

Despite significant technological advances in AAC, many augmentative technologies are not designed to facilitate face-to-face social interaction. The current study extends the work of Higginbotham, et al. by examining the real-time interactions of non-disabled dyads for which one participant used an AAC device. An underlying goal of any conversation is to achieve sufficient mutual understanding for the task at hand (e.g., telling a story, giving directions, solving a problem, etc.). The process by which participants arrive at a joint understanding of what the speaker has intended is called “grounding” or “achieving common ground.” The basic unit of grounding, called a Grounded Contribution (GC) may be defined as a “collaborative process in which a signal (e.g., gesture, word, utterance) is successfully understood.”

METHODS

- **Participants**: 18 - 12 minute videos randomly sampled from 12 pairs of non-disabled adult dyads in the Higginbotham, et al. study.
- **Device**: Tokido impaq word processor (1,975 word dictionary) used by AAC user.
- **Experimental contexts**:
  - Narrative: Unequal role relationship, referents not shared.
  - Map: unequal role relationship, referents partially shared.
  - Puzzle: equal role relationship, visually shared referents.
- **ANVIL** used to transcribe and code interactions.
- **Meaningful gestures (limb, head/face, task actions).**
- **Utterances (speech, device, vocalizations).**
- **Grounded contributions (GC):** a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z.

RESULTS

- **Co-Construction**
  - Both AAC users and their partners co-constructed each others contributions.
- **Message repair**
  - Analysis of the properties of contributions that were non-problematic versus those that involved misunderstanding and repair indicated significant differences across tasks.
  - Narratives involved little repair.
  - Over 90% of the grounded contributions in the Map Task were involved with repair.
  - Proportionally fewer contributions were involved in message repair in the Puzzle Task.

REFERENCES

- Blackstone, S. W., Williams, M. B., & Wilkins, D. P. (2007). Key principles underlying research and common communication strategy limits the applicability of automated data logging techniques such as the Language Activity Monitor (LAM) for recording important aspects of social communication in daily activity settings.
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