INTRODUCTION

Augmentative and Alternative Communication (AAC) technology is typically introduced to individuals with Amyotrophic Lateral Sclerosis (ALS) when their speech has slowed and intelligibility is hampered in difficult listening situations such as talking in a group situation (Yorkston, Miller, & Strand, 2004). Several studies have examined how the AAC technology, especially the hi-tech AAC devices, is used by individuals with ALS (Ball, Beukelman, & Patras, 2004; Doyle & Phillips, 2001; Flood-Gan, et al., 2006; Mathy, 1996; Mathy, Yorkston, & Gorman, 2000; Mathy & Beukelman, 1999; Rabin, Shri, Beukelman, Lasker, & Ullman, 2003). The results suggest that AAC decisions are often made by those individuals when talking in face-to-face interaction, and that AAC technology is significantly used for the AAC users to constituent personal narratives using AAC devices. Unlike other types of narrative, the construction of personal narratives is more collaborative and reflects the life of an individual with ALS.

Research by Cornish & Higginbotham (2008) has begun to explore how participants construct their interactions— including narratives— using AAC technology across different communication tasks. The use of multiple communication modalities (oral, written, device) and joint co-construction of messages is based on particular temporal and content coordination demands of the communication task. Because the research was focused on healthy participants, it is important to compare these findings to a clinical population like ALS.

In this study we investigate how individuals with ALS and their communication partners use their bodies and devices to construct personal narratives. We will also compare personal narratives to story retell tasks. Study participants are Stage 5 ALS participants and their communication partners. We will examine participants’ production of narrative components— both AAC devices used by individuals with ALS and their communication partners. We will also compare participant production of narrative components between participant roles and groups. Participants paid less visual attention to task-relevant entities (person, device, relevant objects) than AAC users.

METHOD (cont’d)

Association and Analysis

To assess conversational, AAC use, and narrative usage, all participants produced personal narratives using EUDICO Logogenator (ELAN 3.0). Transcripts coded at two levels: Conversation level and Analysis level. The narrative level analysis (Lotzick, 2004) is used to identify the underlying narrative structure.

METHOD

Participants

• ALS – All have stage 5 ALS and a familiar partner (e.g., spouse, good friend, etc.)
• Control group – 5 natural speaking adults and a familiar partner

Tasks

All participants were asked to tell a story. This participant in Control group presented a story related to the same event:

• Personal Narrative: A narrative from shared personal experiences (e.g., “the most interesting thing that happened at our trip together”). The participant shared the experiences with the Teller.

• Task: Participants selected an event from their shared experience sequence (e.g., Baseball story from Doyle & Mathy, 1999). participant wrote the story. (Above) Differences in attention allocation were found between participant roles and groups. Participants paid less visual attention to task-relevant entities (person, device, relevant objects) than AAC users.

RESULTS

• (Below) Differences in attention allocation were found between participant roles and groups. Participants paid less visual attention to task-relevant entities (person, device, relevant objects) than AAC users.

DISCUSSION

• Stage 5 ALS participants produce microtial co-constructed conversations when using their AAC systems.

• Similar to findings by Cornish and Higginbotham (2008) using in-person AAC communicators, narrative, attention displays, grounded contributions, and narrative structure are affected by the communication status of the speaker, and the interaction & discourse requirements associated with the communication task.

• These influences also shape the co-constructed efforts of the dyad as evidenced by the proportion of changes in AAC contributions by story teller and partner.

• Surprisingly, ALS participants produced approximately 20% of their communication contributions utilizing their original speech and vocalizations. Observation of the videos reveal that coordination was used in circumstances in which the ALS partner was trying to get their partner’s attention, appropriately respond to their partner’s communication, or to repair a misunderstanding.

• Evidence for multimodal co-constructed narrative communication occurs against the rise of automated data logging (e.g., LAM) for evaluating communication in social settings.

SELECTED REFERENCES


