Global Coherence of Story Narratives in Right Hemisphere Brain Damage (RHD)

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1. To examine discourse in participants with RHD as compared to healthy controls via:
   a. Assessment of global coherence.
   b. Main concept analyses (MCA).

Literature Review
- Individuals with right hemisphere brain damage (RHD) often:
  1. exhibit cognitive-communication deficits, 1 including impairments in discourse. 3
  2. have difficulty maintaining vocational or avocational pursuits, or have disrupted social relationships. 1
- Many speech-language pathologists have been unable to reliably rate discourse of people with RHD. 3
- Global coherence of discourse is the degree to which specific utterances relate to the main topic. 4
- Main concept analysis measures a speaker’s ability to provide the essential elements of a story. At least 33% of healthy controls produced 34 specific main concepts for Cinderella. 5

Purpose:
Examine discourse in participants with RHD as compared to healthy controls via:
- Use discourse measures to assess treatment efficacy in RHD.
- Examine discourse in RHD in relation to size and site of lesion.

Methods
- **Discourse elicitation:**
  - Language samples were elicited from participants as part of the RHDBank project (http://rhdbank.org/).
  - “Cinderella” story samples were obtained using an illustrated story book with the narrative hidden. The book was then removed and participants were asked to tell the story.
- **Language samples were transcribed using the Codes for the Human Analysis of Transcripts (CHAT) format.** 6
- Computerized Language Analysis (CLAN) 7 programs were used to analyze the samples.
- **Global coherence:**
  - To examine discourse in participants with RHD as compared to healthy controls via:
    - G1 = (3 X AC) + (2 X A1) + (2 X IC) + (1 X I1) + (0 X AB)
    - G2 = (3 X A1) + (2 X I1) + (1 X IC) + (0 X AB)
    - G3 = (3 X IC) + (1 X A1) + (0 X I1) + (0 X AB)
    - G4 = (3 X AB) + (1 X A1) + (0 X IC) + (0 X I1)

Results

Discussion, Limitations, Future Directions
- **Global coherence trended toward significant difference between RHD participants and healthy controls. MCA showed no significant difference.**
- **Global coherence and number of MCs used highly correlated with CLQT-EF score.**
- **Small, highly variable sample may have limited ability to detect significant differences between groups.**
- **Highly educated sample.**

References