The Use of Semantic Feature Analysis with Wernicke's Aphasia
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Introduction
A wide variety of treatment approaches for aphasia exist; however, the efficacy of their use across aphasia categories is lacking. Perhaps this is because aphasia presents in a variety of manners, and therapy is generally tailored to individual needs. Semantic feature analysis (SFA) is a common therapeutic cue used among practicing clinicians, which has also been a topic of interest among researchers.

Review of Literature
Semantic feature analysis (SFA) is a treatment technique that utilizes semantic, phonological and orthographic cues in combination with one another to assist semantic retrieval.

Massaro and Tompkins (1994) first presented the efficacy of SFA and developed a feature analysis protocol for treating communication disorders in traumatically brain-injured individuals. Retrieval of information from semantic networks was facilitated by describing a familiar target by using predefined categories such as groups, action, use, location, properties, and associations.

Boyle and Coelho (2005) conducted their own research using two individuals with fluent aphasia. Both studies found that SFA during confrontation naming tasks improved the individual’s performance on both trained and untrained nouns. However, there were no observations of generalization into connected speech.

Coelho, McHugh, and Boyle (2000) used SFA with an individual with fluent aphasia and Boyle (2004) did not find generalization outside of single word naming.

Procedures
This single case study description involves an 18-year-old female with Wernicke’s type aphasia as a result of traumatic brain injury. Speech-language treatment had been provided continuously following injury via 3 separate agencies; however, the use of structured SFA cues was not initiated until 7 months post injury. SFA cues were provided in single word training only as diagrammed in Figure 1. When semantic cues alone were unsuccessful at eliciting naming of the target noun, phonologic and orthographic cues were provided. Once training criteria was met (as outlined in Figure 2) new word sets were introduced. During this case study, a total of three 10-word sets were trained over a 13-week period of treatment.

Results
Trend data over the 13-week treatment period show that both fewer cues and treatment sessions were required to meet the training criterion (Table 1). Improvements in single word naming, both for trained and untrained words, are evident in generalization probe graphs (Table 2). An increase in spontaneous naming is further supported by improvements in the untrained word set over time, as well as an increase in baseline performance on training sets two and three.

Discussion
Based on this case review, Semantic Feature Analysis is both an effective and efficient cueing tool for confrontational naming tasks. However, generalization to conversational speech was not shown. Factors that may have influenced generalization to conversation include variations in topic between samples, the clinician’s level of participation in conversation, and the client’s level of comfort with their communication partner. Given the level of success in single word naming observed in this case review, SFA is validated as an external and internal cueing strategy for single word contexts. Future studies should examine the use of SFA training during conversational tasks.

References
This page contains references relevant to the study, including studies by Massaro and Tompkins (1994), Boyle and Coelho (2005), and others.