

Doctoral Dissertation

Comprehension of discourse and proper
names by people with aphasia

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Abstract

Aphasia is caused by damage to the language center of the brain. People with aphasia suffer from deficits in the comprehension of words and sentences. Most of these deficits have been evaluated, up to now, by using common nouns and sentences independent of their context. Stimuli related to subjects' personal experiences were also purposely excluded. In daily life, however, contextual knowledge is present which helps us to understand language stimuli. There is little research in aphasiology regarding the extent to which aphasic people can comprehend daily used language stimuli. In particular, there is a scarcity of research concerning comprehension of discourse by people with mild aphasia and of proper names by people with severe aphasia.

In the current study, three experiments were conducted on discourse comprehension using one radio news story, a series of news stories, and stories of greater length. People with aphasia and two different age-groups of controls served as subjects. While the people with mild aphasia were able to comprehend a single news story, they showed difficulties in understanding the serially-presented news stories. On all tasks, the scores of the younger control group were superior to those of the older control group. I have proposed a model of the decreasing capacity of working memory in the comprehension and storage of spoken stories when they are serially presented.

It has been understood that people with global aphasia, the most serious aphasic impairment, show difficulties in comprehending common nouns. A study suggested that they comprehend geographical names better than common nouns. In my experiments, I found that, for the subjects with global aphasia, comprehension of the names of famous people was easier than comprehension of geographical names. Conversely, a group of aphasics showed more difficulties with personal names than with common nouns. We understand that the retrieval of personal names is often difficult for unimpaired people. These observations, as well as the linguistic distinctiveness of proper names, and clinical and anatomical data, led me to construct a neuropsychological model for the processing of personal names.

In most cases of information exchange, a topic is defined first by proper names. Subsequently, the information related to the proper names is exchanged in discourse form. The ability to retain discourse contents and to retrieve proper names decreases with age and the population of the aged in Japan is rapidly increasing. Research regarding discourse and proper names is, therefore, highly relevant for unimpaired people, as well as for people with aphasia.