Here, I would like to express great appreciation for many people to help me to the following researches.

Dissertation

2003 Kiyoshi Yasuda. Comprehension of discourse and proper names by people with aphasia.


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.

Original papers, only English

Abstract
This paper introduces the concept of a ‘personalized reminiscence photo video’ as a convenient method for reminiscence intervention. The video utilizes a slideshow video of personal photos with narration, background music, and pan/zoom visual effects. An experiment was done using 15 individuals with dementia who watched personalized reminiscence photo videos as well as two types of TV shows: a variety show and a News show. Eighty percent of the subjects showed more attention to their personalized reminiscence photo video than to the other two types of TV shows.


Abstracts
In order to facilitate conversation for people with moderate-to-severe aphasia, a conversation-support system has been developed. This system consists of three electronic resources: a vocabulary data file, an encyclopaedia, and homepages on the Internet. The vocabulary data file we created contains approximately 50,000 words. These words function as keywords in conversation. Fifteen people with non-fluent and moderate-to-severe aphasia participated in the experiment. Participants conversed with their communication partners about four topics under use and non-use conditions. Comparison of the points between the use and non-use conditions showed that significantly more information was conveyed when the vocabulary data file was used. The vocabulary data file succeeded in eliciting more information from people with moderate-to-severe aphasia within a limited timeframe. Presentation of the keyword or proper name lists related to the topics was shown to be a useful conversation resource for people with moderate-to-severe aphasia.


Abstract
This study evaluated the effectiveness for three individuals of music and messages which were automatically output by an IC recorder. After music was presented, messages instructed them to go to a day care center, behave more peacefully and eat more at meals, respectively. These stimuli were highly effective for guiding the above activities. This study suggests that automatic output of music and messages has potential as a strategy for guiding individuals with dementia at their home. For the third individual, the music and messages were output through a doll.


Abstract
This study attempted to evaluate the use of an IC Recorder and Chat Box for voice output to a patient with Alzheimer’s disease. Messages were recorded by a speech therapist and played to prompt the patient’s daily activities, including reminders not to leave the house to take the dog for a walk. The patient did well in initiating actions in response to the spoken messages. His most troublesome behavior, leaving the house, ceased completely.


Abstract
The IC Recorder can output about 500 previously-recorded messages at programmed times. The spoken messages prompted various daily tasks of eight patients with acquired memory impairments. One of these tasks such as diary writing, or a letter-writing drill was selected for each patient as a main task, and its completion was logged. These completion data demonstrated that the messages output by the IC Recorder were highly effective to prompt the main tasks for five out of eight patients.


Abstract
Mild aphasic subjects, age-matched normals, and younger normals listened to four serially-presented radio news stories, and a single radio news story. Half of the aphasic subjects performed as well as age-matched normals in a single news story comprehension. However, they demonstrated a drastic deterioration in performance when asked to listen to a series of four news stories. Age-matched normals, and aphasic subjects, to a lesser extent, showed an impairment in the comprehension and storage of the news story heard last in a series of four news stories. These results were discussed in terms of the comprehension and storage resources of working memory.

1998 Kiyoshi Yasuda, Yoshiharu Ono. Comprehension of famous personal and geographical names
in global aphasic subjects. Brain and Language, 61, 274-287

Abstract
This experiment compared comprehension of famous personal and geographical names with that of common nouns in three groups of severe aphasic subjects, and across three modalities. Results revealed that the global aphasic group comprehended famous personal names significantly better than they did common nouns, and were better in the reading comprehension modality. CT images suggested that the left occipital lobe and the left posterior inferior temporal gyrus, as well as the right hemisphere, may have relevance to the comprehension of written famous personal names.


Abstract
We report a patient who showed a dissociation between impaired semantic memory and preserved autobiographic memory. A 56-year-old woman, developed a meningioma. Magnetic Resonance Imaging revealed bilateral lesions in the temporal lobes and in the right basal frontal lobe. The patient's intellectual deterioration and anterograde amnesia were mild. Autobiographic memory remained intact, while semantic memory for public events, historical figures, cultural items and knowledge of low frequency words and technical terms related to her profession were severely impaired. We hypothesize that bilateral lesions of the anterior half of the middle region of the temporal lobe plays a crucial role in causing deficits in semantic memory.

Reviews, etc., only English
2007 Kiyoshi Yasuda, Rehabilitation through portable and electronic memory aids at different stages of Alzheimer’s disease. Les Cahiers De La Fondation Me’de’ric Alzheimer, 97-107, No3, September

Abstract
Memory loss is the main symptom of Alzheimer's disease. These memory disorders manifest themselves as a deficit in processing information and an inability to retrieve information
when it is needed and make effective use of it. For example, a person who is no longer able to locate the toilet becomes incontinent. The best way of helping people with this condition is therefore to provide them with information as and when they need it. Memory aids must thus be designed, or commercially available computer equipment adapted, to facilitate their access to this information. I explored a number of different memory aids from multifunctional diary systems to electronic reminders that can effectively help people remember useful information.

2000 Kiyoshi Yasuda, Tetsuo Nakamura, Bobbie Beckman. Brain processing of Proper names.
Aphasiology, 14, (11), 1067-1090.

Abstract
Recent studies have revealed that proper names are neuropsychologically and anatomically processed in a manner which differs from the processing of common nouns. The current review described proper names, which are labels attached to referents, as being without semantic meaning. The clinical data were presented regarding comprehension and retrieval of peoples' names, and memory of their unique properties. The literature reviewed above suggests that after the initial memory consolidation of a name and a person by the left hemisphere's hippo/parahippocampus, the memory become established in the adjoining fusiform gyrus. Consequently, it is hypothesized that the fusiform gyrus forms a processing network for peoples' names with the temporal pole and postero temporo/occipital lobe. The literature concerning geographical names, and topographical names are also reviewed.

Presentations in academic conference, only English

Abstract
Information technology to record daily behavior by wearing Video Recorder have been studied. However, no system has been developed for daily use of people with dementia. We developed a prototype system to assist recoding and searching of one-day behavior of vest-wearer on which two IC recorders and a portable video recorder are equipped.
Vest-wearer records on IC recorder the key words and the time of occurrence. The recorded information is analyzed by a speech recognition software on personal computer. Then, by using these literally-converted information, vest-wearer can search for the specific visual scene on the video record. The operating procedures for these tolls were visually presented by a note pad on the vest, and also verbally and automatically presented by another IC recorder. A patient with mild cognitive impairment succeeded to record his daily behavior for 12 hours in a day.


Abstract.
We have created two remote assisting systems, the remote reminiscence talking and scheduling prompter using video phone, and used them with four individuals with dementia living in their homes. For two out of four individuals, reminiscence talking and scheduling prompter are effective respectably, compared to TV watching and care giver’s instructions. The psychological stability of one individual has continued for three hours even after the remote reminiscence talking finished. We suggest that remote reminiscence talking and scheduling prompter are very promising for caring individuals with dementia.

2008 Kiyoshi Yasuda. Information and psycho-emotional assistance for dementia through low technology, HIS. In Japanese.

Abstract
The core deficit of dementia is memory impairment. Therefore, I have developed a number of different memory aids, from multifunctional diary system to memory pads. These aids including, electronic reminders, can effectively help people remember useful information. As the dementia progresses, people react less to verbal instructions. Psychological and behavioral disorders also occur. For people with this dementia stage, songs and dolls were also used for their psychological stability.

Abstracts
Caregivers bear a great burden of toileting assistance for those patients with dementia. We propose a system that can help the patients to relieve themselves in the toilet activities by giving cognitive support through an appropriate voice and visual guidance, in line with their task progress. The system observes 3-D user appearances and recognizes the task progress based on his/her position and postures. We performed an evaluation experiment with 7 subjects with dementia in simulation environment. Five patients had successfully fulfilled their required task, partly with the help of voice guidance by an experimenter from the monitor room.


Studies with other authors, only English
2010 C. Oshima, K. Nakayama, K. Yasuda, K. Nishimoto, and H. Okumura. Design of music therapy system that allows elderly people with dementia to perform music with pleasure. ICHC.


2010 Noriaki Kuwahara, Kiyoshi Yasuda, Nobuji Tetsutani, Kazunari Morimoto. Remote
assistance for people with dementia at home using reminiscence systems and a schedule prompter, Int. J. Computers in Healthcare, 1, (2), Inderscience Enterprises.


2008 Nilar Aye1, Takuro Ito1, Fumio Hattori1, Kazuhiro Kuwabara1, Kiyoshi Yasuda, Conversation support for people with aphasia in distant communication, Proceedings of the 2008,IEEE Canadian Conference on Electrical & Computer Engineering


2004 Noriaki Kuwahara, Kazuhiro Kuwabara, Akira Utsumi, Kiyoshi Yasuda, Nobuji Tetsutani. Networked Interaction Therapy: Relieving Stress in Memory-Impaired People and Their Family Members. IEEE-EBMS