

Abstract

Language use at a discourse level, or in conversational interaction, puts high demands on human cognition. Brain damage can often result in pragmatic language disturbances, even if different language functions taken separately seem to be intact. In this thesis, post-stroke pragmatic ability in inferencing and in conversational interaction is explored.

The ability to make inferences for comprehension and its association with sustained attention and verbal working memory capacity are studied in two experimental group studies with 14 right-hemisphere-damaged (RHD) individuals, 14 left-hemisphere-damaged (LHD) individuals, and a control group consisting of 14 non-brain-damaged individuals, matched for age, sex, education and reading habits. Change in the ability to interact in conversation and the degree of negative impact of this change are also investigated in a group study, using a questionnaire distributed to the brain-damaged individuals and their conversational partners (CP). The impact of pragmatic language disturbances at the individual level is explored in four case studies where the quantitative and qualitative results of the experimental cognitive tasks and the questionnaire are supplemented by an analysis of video-recorded natural conversation.

The key findings show that the groups have somewhat different patterns of results in the inference tasks. The LHD group primarily had trouble with tasks requiring an ability to revise inferences, and their results on those tasks tended to be associated with verbal working memory. The RHD group also had problems with tasks requiring the ability to revise inferences, but their results were associated with sustained attention. The RHD subjects also had problems making inferences about characters' attitudes or motives but no associations were seen between results on these tasks and verbal working memory or sustained attention. It was found that the LHD individuals and their CP tended to report more post-stroke changes and negative impact of these changes in conversational interaction than the RHD subjects and their CP. However, most of the RHD subjects and their CP who *did* report changes perceived a high degree of negative impact of these changes. The LHD and RHD groups often reported similar pragmatic areas as being affected in conversation and this was observed in the video-recorded conversational interaction as well. It is inferred from the results that expressions of pragmatic disorders post-stroke may be subtle and expressed in ways that are not traditionally related to language disturbances. Furthermore, even subtle pragmatic language disorders have an impact on, and also depend on, the role of the conversational partner.

The results are approached from a perspective in which pragmatic ability in association with brain damage is seen as the outcome of interaction between several different cognitive functions, personality and compensatory strategies in the brain-damaged individual as well as in his or her conversational partners.

KEY WORDS: Right-hemisphere brain damage, Pragmatics, Cognition, Subtle language disorder, Attention, Working memory, Inference, Conversational interaction

The thesis is written in English.