A Study Investigating Word Association Behaviour in People with Acquired Language and Communication Disorders

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Abstract: The aim of this study was to better characterize the nature of word association responses in people with aphasia. The participants selected for the experimental group were 4 individuals with mild Broca's aphasia. The control group consisted of 51 cognitively intact age- and gender-matched individuals. The participants were asked to perform a word association task in which they had to say the first word they thought of when hearing each cue. The cue words (n= 16) were the translation in Italian of the set of English cue words of a published study. The participants from the experimental group were administered the word association test every two weeks for a period of two months when they received speech-language therapy A combination of analytical approaches to measure the data was used. To analyse different patterns of word association responses in both groups, the nature of the relationship between the cue and the response was examined: responses were divided into five categories of association. To investigate the similarity between aphasic and non-aphasic subjects, the stereotypy of responses was examined. While certain stimulus words (nouns, adjectives) elicited responses from Broca's aphasics that tended to resemble those made by non-aphasic subjects; others (adverbs, verbs) showed the tendency to elicit responses different from the ones given by normal subjects. This suggests that some mechanisms underlying certain types of associations are degraded in aphasics individuals, while others display little evidence of disruption. The high number of paradigmatic associations given in response to a noun or an adjective might imply that the mechanisms, largely semantic, underlying paradigmatic associations are relatively preserved in Broca's aphasia, but it might also mean that some words are more easily processed depending on their grammatical class (nouns, adjectives). The most significant variation was noticed when the grammatical class of the cue word was an adverb. Unlike the normal individuals, the experimental subjects gave the most idiosyncratic associations, which are often produced when the attempt to give a paradigmatic response fails. In turn, the failure to retrieve paradigmatic responses when the cue is an adverb might suggest that Broca's aphasics are more sensitive to this grammatical class. The findings from this study suggest that, from research on word associations in people with aphasia, important data can arise concerning the specific lexical retrieval impairments that characterize the different types of aphasia and the various treatments that might positively influence the kinds of word association responses affected by language

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