

Effects of Rate of Speech and Linguistic Stress on
Auditory Paragraph Comprehension of Aphasic Individuals
(Abstract)

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Aphasiologists are just beginning to investigate the contributions of various paralinguistic variables to auditory comprehension performance of aphasic persons. Variables of interest in this study were message timing, prosody and linguistic context.

Auditory comprehension performance of 20 aphasic and eight nonaphasic subjects was studied in a paragraph comprehension task in which rate of speech and linguistic stress were systematically altered. Aphasic subjects were assigned to either high level or low level auditory comprehension groups on the basis of their performance on a shortened form of the Token Test. Paragraphs were presented either with slow rate of speech (120 wpm) or normal rate of speech (150 wpm) with either normal or exaggerated linguistic stress given to critical items within sentences in paragraphs. Paragraph comprehension was measured by analyzing subjects' response accuracy on a series of interlocking yes/no questions following each paragraph. Token Test and paragraph scores of aphasic subjects were correlated to examine the relationship between performance on these two measures.

Aphasic subjects made significantly more errors on paragraphs than nonaphasic subjects, although performance of nonaphasic subjects was not error free. Paragraph scores of both aphasic subject groups were significantly higher for paragraphs presented with slow rate of speech than for those presented at normal rate. Response accuracy of aphasic subjects was also significantly higher for paragraphs presented with exaggerated stress than for normal stress paragraphs. Interactions among rate, stress and aphasic subject group were nonsignificant. Scores of nonaphasic subjects did not vary appreciably across rate or stress conditions in paragraphs.

Results suggest that speakers have two readily available strategies for improving communication with aphasic persons presenting auditory comprehension problems--slowing rate of speech, and emphasizing or stressing important elements of the message. However, responses to rate and stress variables differed across subjects, indicating a need to investigate the usefulness of these strategies for each aphasic individual.

A significant positive correlation was observed between paragraph scores and Token Test scores of high level aphasic subjects; however, the correlation obtained for low level aphasic subjects was low and nonsignificant. These findings indicate that, although Token Test scores of high level aphasic subjects may be useful for predicting how they may comprehend longer samples of connected speech, Token Test scores may be inadequate for predicting such performance of low level aphasic subjects. It may be speculated that low level subjects may need contextual support (in this study, linguistic

redundancy) to comprehend spoken language. These findings are also consistent with the original purpose given for the Token Test as a test for minimal aphasia. Results of this study lend further support to the observation that manipulations of paralinguistic parameters in spoken language may favorably affect auditory comprehension abilities of aphasic persons.