

Construct Validity of Procedures used for
Severity Ratings of Apraxia of Speech
(Abstract)

Anthony G. Mlcoch
Edward Hines Jr. Veterans Administration Hospital, Hines, Illinois

Paula A. Square
University of Toronto, Toronto, Canada

Woodford A. Beach
University of Chicago, Chicago, Illinois

In an attempt to determine which scaling method, interval scaling or direct magnitude estimation, is the most appropriate procedure to be used in rating severity of apractic speech, two groups of 13 normal listeners were asked to judge the severity of apraxia in the oral readings of 9 subjects with relatively pure apraxia of speech. The first group rated the readings on a seven-point equal-appearing interval scale while the second group judged each sample relative to a standard speech sample played to them. Employing a method of analysis suggested by Stevens (1974), the arithmetic means of the interval scores were plotted against the geometric means of the direct magnitude estimation scores. This resulted in a significant positive linear relationship ($r = .97$, $p < .005$), indicating that both procedures had good construct validity. That is, either interval scaling or direct magnitude estimation could be employed to judge apractic speech severity. Measures such as the frequency of segmental errors (i.e., substitutions, distortions, additions, omissions, and voice confusions) and nonsegmental errors (i.e., repetitions, consonant prolongations, transitional errors, audible articulatory struggle, total reading time, and syllabic segregation) were also made and related to the overall ratings of severity. A multiple correlation analysis revealed that, while the presence of segmental errors contribute to the ratings, judges tended to listen more for nonsegmental errors which disrupted the prosodic continuity of the connected discourse. The results suggested that the clinician might work directly on the prosodic characteristics of apractic speech, rather than working exclusively on the apractic speaker's ability to program articulatory movements.

REFERENCES

- Stevens, S.S., Perceptual magnitude and its measurement. In E.C. Carterette and M.P. Friedman (Eds.), Handbook of Perception (Vol. 2). New York: Academic Press, 1974.