Language as a Variable in Competing Message Task*

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Speech discrimination scores were obtained for 100 normal hearing listeners for two digit numbers embedded in sentences in the presence of competing message. The competing signals consisted of sentences spoken by three speakers, two male and a female, simultaneously. The primary and competing signals were presented together monaurally. The sentences of the competing message were either in the second language (Experimental condition I) or in the first language (Experimental condition II) of the subject. Five signal-to-noise ratios – 12 dB to + 12 dB in steps of 6 dB were employed. Ninety-two of the 100 experimental subjects were tested in quiet using similar test material (Control conditions I and II). Discrimination score was defined as the number of digits in sentences, correct out of the total number presented. The score was expressed in percentage. Articulation curves were obtained for subjects in both the experiments.

Statistical analysis of the results revealed that the language of the competing message was not a variable in discrimination testing and that the different signal-to-noise ratios did not have differential effects upon the performance in a discrimination task. Subject's performance in quiet was significantly better than that under various degrees of competing message.

From the date, it may be concluded that,

1. With increasing signal-to-noise ratios, discrimination score for embedded two digits increases ;

2. Language in which the competing messages are spoken, whether the native or the second language of the subject seems to have little effect on discrimination score.

Suggestions for Further Research

1. Auditory discrimination test of the kind used in the present study may be administered to different clinical groups consisting of sensori-neurals, conductives and presbycusic patients.

2. An attempt may be made to see if the binaural scores obtained using the same test material differ from the monaural scores of the present study.

3. Data pertaining to the effectiveness of present test in the evaluation of hearing aids may be collected.

4. The effects of number of talkers used to produce competing message (using the similar test material as in the

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present study) upon the discrimination score may be studied.

5. The competing messages read by single talker may be administered in forward and backward modes to see the effects of semantic content of competing message upon discrimination score.
6. An Indo-Aryan language may be used along with English in the administration of a speech discrimination test in competing message situation.
7. Speech discrimination scores may be obtained with normals in a situation in which they are not familiar with one of the languages of the test (either primary message or competing message).