

THE EFFECT OF TRAINING AND NATIVE LANGUAGE ON SCORING THE RESPONSES ON A SPEECH DISCRIMINATIVE TEST IN ENGLISH

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The language habits of our community predisposes certain choices of interpretation on our experiences. As cultures differ, languages differ. The native language of a speaker determines the perception and production of a language. The native language has been found to interfere with the other language at different levels phonemic, grammatical and racial (Denirich, 1954).

Several cross language studies have been done using different types of stimuli such as vowels, consonants, words and sentences. Gardourand Harshnar have found that based on the aspect of linguistic tone, a tone language speaker can be easily identified from a speaker of a non-tone language. Stevens *et al.* (1969), used vowels as stimuli and found that linguistic experience had no effect, whereas Baglis (1972) study showed that the individuals performance was related to the amount of linguistic experience.

Studies using consonants as stimuli indicated that mother-tongue affected perception (Singh 1966, Singh and Black 1966; Abramson and Lishker 1970; Miyawaki *etal.*, 1975; Sapon and Carrok (1957).

Early linguistic experience has been found to play a central role in infant speech perception (Eilers et al , 1979). Speech audiometry being an indispensable tool to an audiologist in diagnosis and rehabilitation, the effect of the native language on the perception of a non-native language has to be accounted for. In scoring the oral responses in a speech discrimination test, there is a possibility that the discrimination scores obtained are as a result of the true discrimination scores of the subject and the effect of the perception of the tester influenced by his native language. To obtain the true discrimination scores, the error in scoring due to the tester's perception which is influenced by his native language has to be ruled out.

The aims of this study are :

1. To find out if training helps an audiologist to overcome the influence of

his native language in scoring a speech discrimination test ("Auditory discrimination test NU-6 Form A) in a non-native language.

2. To find out if there is a significant difference in the scores when the responses are evaluated by native speakers of Dravidian languages compare to those evaluated by native speakers of Indo-Aryan languages.

METHODOLOGY

The subjects consisted of two groups. The first group consisted of twenty 'listeners' who were Kannada-English bilinguals to whom the NU_6 Auditory discrimination test Form A was administered. The second group of forty subjects formed the 'testers'. The 'testers' were *ten* trained Dravidians, ten 'untrained Dravidians, ten trained Indo-Aryans and ten untrained Indo-Aryans. Trained refers to graduates and final year BSc, Speech and Hearing students and 'untrained' refers to those laymen to the field of Speech and Hearing.

The criteria for selecting subjects were (1) within the age range of eighteen to twenty eight years; (2) should have had English as the medium of instructions for atleast five- years; (3) pass the English proficiency test; (4) have normal hearing in both ears in the frequency range of 250 Hz to 8000 Hz (ANSI '69) 5) a negative history of ear infection, hearing loss and head injury.

An attempt was made at keeping the number of subjects with different mother tongues equal under both the trained and untrained groups. The Dravidian group consisted of Tamil, Kannada, Malayalam and Telugu speakers and Indo-Aryan consisted of Hindi, Oriya, Konkani, Punjabi. The instruments used in this study are : A two channel audiometer (Madsen 0B70) and a Stereo Tape Recorder Uher (Logic S-G. 631). The test environment consisted of a two room situation. The listeners were made to sit in the sound treated room at the centre and the two testers at the two corners behind the talker.

The speech reception threshold of the listener was obtained using CID W-1 test A (Hirsh *et al.*, 1952) using the procedure Rintleman *et al* (1974).

Speech discrimination threshold was obtained for the recorder version of the four tests of form A NU Auditory test No. 6 at 5 dB, 16 dB, 24 dB, 32 dB and 40 dB above SRT. The tests were presented through ear phones (TDH 39 MX 41 AR ear cushions). All the tests were listened to by all the subjects, but only at four of the above levels. As the listeners responded by writing and saying the monosyllable aloud, the testers were scoring them by writing out the responses..

The response sheets of both the listeners' and 'testers' were corrected to find out if there existed any error in scoring due to the influence of (1) Native language (2) Training.

Results and Discussion

The percentage of discrimination scores for each individual was obtained by the twenty trained and twenty untrained testers. The mean of the percentage of discrimination scores for the four tests was obtained. Appropriate Statistical procedures were used for analysis and it was found that there was no significant difference between the two groups of testers : Indo-Aryans and Dravidians and also between the trained and the untrained testers. The findings on the effect of native language in this study can be discussed along the following lines :

1. The effect of languages belonging to the two language groups though being two entirely different families, is possibly the same.
2. Most of the Dravidian group of subjects knew atleast one Indo-Aryan language in Hindi. Likewise, the subjects in the Indo-Aryan group were all exposed to the regional language Kannada which is a Dravidian Language. Among the Indo-Aryan subjects, the trained subjects were exposed to Kannada for a maximum period of four to five years and the untrained to a maximum of ten years as all of them were domiciles of Karnataka. So, the Dravidian group being exposed to Indo-Aryan languages and the Indo-Aryan group being exposed to Dravidian languages might have presented in a similar linguistic experience causing no significant difference in the effect between the two groups.

So the assumption can be proved by studying two groups of pure Dravidian and Indo-Aryan language speakers knowing English.

- 3 . The effect of training: there was no significant difference between the mode of scoring a non-native speech discrimination test of the trained and the untrained testers. It can be said that both the groups are equally influenced by their native languages in perceiving non-native language. To overcome this inferences special emphasis has to be given to the aspect of listening to sounds of a non-native language during the training programme.

The two groups (trained and untrained) were not quantitatively different, but error analysis may reveal qualitative difference.

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