

# The Relationship between Articulation and Discrimination of Kannada Speech Sounds in Terms of Distinctive Features \*

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Little is known about the relationship between articulation and discrimination in phonological development. Winitz (1969) has suggested that the child's understanding of the adult phoneme system or a portion thereof antedates any attempt by him to utter language units.

In the absence of unequivocal evidence, many have assumed that articulatory errors reflect impairment in the development of speech sound discrimination. To test this hypothesis, the relationship between articulatory performance and discrimination has been investigated. Articulatory defectives have been found to be inferior to articulatory non-defectives on tests of discrimination.

Since the articulatory defectives have been studied as a group, the relationship between specific articulatory and discrimination errors is not clear.

Since there was no test for discrimination in Kannada, a test using distinctive features was developed. The purpose of the study was :

- (1) To look for patterns in the development of discrimination and

- (2) To study the relationship between articulation and discrimination.

It was hypothesized that :

- (1) There is a pattern in the development of speech sound discrimination.
- (2) There is no relationship between articulation and discrimination.

A list of 17 minimal pairs was made up by using pairs of sounds which differed in one or two distinctive features. Four pairs of pictures illustrated each item. The instructions and stimulus word pairs were recorded.

The test was administered to a random sample of school-going children in various localities of Mysore City. All the children had normal hearing. The discrimination test required the child to point to the picture-pair from among four pairs illustrating the word pair he heard. A score of 3 or 4 was the criterion for correct discrimination.

The child's oral responses to these picture pairs, and, to a picture word articulation test were taped, and evaluated by two trained speech and hearing graduates. The discriminations and articulation of each item were then compared.

\* Master's Dissertation, University of Mysore, 1973.

There was a definite pattern in the development of discrimination, supporting Jakobson's hypothesis. Words differing more than one distinctive feature were discriminated better than those differing in one distinctive feature. Features of voicing and nasality were distinguished at an earlier age than features of place. Thus the hypothesis that there is a pattern in the development of discrimination was retained. The present study also supported earlier observations that distinctions between members of certain sets (liquids and stridents) were the last to be acquired. All the distinctions had been acquired by the age of 8 years.

The following observations regarding the relationship between articulation and discrimination were made :

- (1) Sounds that were discriminated correctly were also articulated correctly.
- (2) Except in 4 instances, sounds that were misarticulated were also not discriminated.
- (3) On the other hand, many word pairs which were articulated correctly were not discriminated. Errors in discrimination persisted for some time after the distinction had been made in articulation.

The distinction between alveolar and retroflex sounds was the last to be acquired both in perception and in production.

The production of a distinction always preceded its perception. This was interpreted as supporting the motor theory of speech perception (Liberman *et al.*, 1961 b). The importance of ear-training in the correction of mis-articulation was questioned.

#### **Limitation**

The sample of the present study was too small to draw conclusions of any generality.

#### **Recommendations for Further Research**

- (1) A similar study may be carried out in other Indian languages using a large sample to verify Jakobson's hypothesis.
- (2) Bilingual children may be studied to see if the patterns of acquisition are the same for both the languages.
- (3) The relationship between the acquisition of phonemic distinctions by children, and the order in which these distinctions are restored in aphasics, may also be studied.