

NORMAL RATE OF SPEECH IN KANNADA*

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Traditionally 'Rate of Speech' is defined as the number of words spoken per minute during a speech performance. That would include all pauses — intentional and unintentional and meaningful words spoken in unit elapsed time. In this study, the number of syllables per minute were considered instead of words.

Rate of speech is an important variable in evaluating normalcy of Speech. Recent investigations have indicated a relationship between syllable duration and speech intelligibility i.e., faster the rate of speech more unintelligibility. Hockett (1963) suggests that, if a narrow range of speech rate emerging after many cross linguistic comparisons of speech rate are made, then 'Speech Rate' within a certain range could be added to the list of features shared by all languages.

Fonagy, I, and Magdics (1960) quote that the speed of utterance differs according to the type of material, the stress and intonation pattern, e.g., Reading Poems—9.4 syllables per second and sports transmission—13.83 syllables per second in English. With respect to the material they say, shorter phrases are uttered slowly compared to long phrases.

Goldman and Eisiles (1961) say that the rate of articulation responds to practice and that an increase in the speed of articulation indicates an increase in the use of prepared and well-learned sequences. They also state that silence of less than 0.25 seconds need not necessarily be a hesitation or a pause.

Steer, A.B, (1974), stated that emotion plays an important role in change of rate of speech. In his study males showed a significantly lower rate of change than females while expressing emotions. He also stated that there was no significant effect of extroversion and neurotism on the rate of speech.

Mackay, D.G. (1974), in studying syllable structure and speech rate found

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that 'CCV' and 'CVC' syllables were being produced faster than 'VCC' at maximum speaking rates and 'VCC's were slower than 'CCCV's and isolated vowels.

Miller, N, et al (1976), suggests that speech rate functions as a general cue that augments credibility and rapid speech enhances persuasion.

Darley (1940) established 'Rate Norms' of normal speakers for a passage. His zero percentile was represented by 129 words per minute, the 50th percentile by 166 words per minute, and the 100th percentile by 222 words per minute.

Franke (1939) found that normal speech rate varies from 203 syllables per minute to 265 syllable per minute

According to Guinness Book of World Records, maximum rate of speech is 327 words per minute by John F, Kennedy and 403 words per minute by Andrich (1978).

Rathna, N., Anil, K. B., and Subba Rao, T. A., (1979) compared the speech rate between males and females and found no difference in reading but while speaking females were faster than males. Their findings were as follows :

| | Passage Reading | Spontaneous Speech |
|------------------|-----------------|--------------------|
| Words/Minute | 93.68 | 104,40 |
| Syllables/Minute | 427.81 | 361.86 |

The only study that is available for Kannada language has limited number of subjects from college population. Duration of its speech sample is only one minute.

It was felt necessary to establish the norms of Kannada speaking rate. The present study was to establish the same Rate of speech is defined as the number of syllable per minute in this study. In this study it has been attempted to find whether sex, literacy, age and place (Urban and Rural) have any significant effect on the rate of spontaneous speech and to find-out normal speaking rate

Methodology :

64 native speakers of Kannada (32 males and 32 females) were subjects They are from the same dialect. They were chosen from the rural and urban.

areas in equal numbers. There were equal numbers of literates and illiterates. The age range was 17 to 66 years. All literates were able to read Kannada, the rural population was from countryside of Mysore district.

Subjects were introduced to the purpose of recording. They were instructed to speak casually and continuously on any chosen subjects. The speech samples were recorded on cassettes using a tape recorder with external microphone. The speech samples were collected for five minutes from each subject.

Analysis :

The data recorded on cassettes was heard and the number of syllables were counted using a counter. It was noted that there were not long pauses in the speech samples. The counting of syllables was checked by another investigator and there were negligible differences, e.g., a difference of 8 syllables for 1500 syllables. On the average 5 minutes were taken for each individual. Later the average speech rate for males and females ; literates and illiterates urban and rural population were computed.

Results:

The rate of speech in syllables for different groups in the following table :

| | Males | Females | Urban | Rural | Literate | Illiterate |
|-------|--------|---------|--------|--------|----------|------------|
| Mean | 281.26 | 282.91 | 292.56 | 268.49 | 285.07 | 275.03 |
| S. D. | 41.84 | 31.64 | 40.34 | 31.23 | 36.79 | 36.51 |

(Syllables per minute)

The overall speech rate was 282 syllables per minute. There was no difference between males and females in their speech rates. Even the difference between the speech rates of literates and illiterates is not statistically significant. But the difference between rural and urban population is statistically significant and urban group seems to be having a faster rate of speech relatively.



The above graph indicates the change of rate of speech for different age groups. It is observed that the rate goes on decreasing with age. The change was statistically significant. But it should be noted that there were less number of subjects in later age groups.

Discussion :

The speech rate in Kannada in terms of syllables per minute has been found to be 282 in this study. In an earlier study (Rathna, et al) the rate had been found to be 361 syllables per minute, which is relatively a higher rate. According to Franke (1939) the rate is 203-265 syllables per minute in English. The present norms found nearer to that of Franke.

It has been seen that the urban population speaks at a faster rate than that of rural population. Perhaps this may explain the difference in rates found by this study and another Kannada study which had only literate urban population. There is no support to say that speech rate differs between languages. This result is comparable with Franke's findings. The speech process does not vary much between human beings unless it appears as a speech disorder. This seems to be true in regard to sex and literacy and language. However, the living modes seem to bring difference in the rate of speech. The urban population speaks relatively faster. The other observation which has been made is that there is decline in the rate of speech, after the age of 40 years. These authors are not accounting for the decline. There is a need of further study having a larger number of subjects to confirm this better.

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