

Phonological Processes in Malayalam Speaking 3-4 Year Old Urban and Rural Children

Anitha Simon
Shruthi L.
Rajalekshmi S.
Jenny Mevis D'Souza
Satish Kumaraswamy, Asst. Professor and Ph.D. Scholar

=====

Abstract

Most of the Indian population resides not in urban, but in rural areas with living conditions and facilities being very much different from the urban conditions. Hence, the present study focusses on comparing the phonological processes across urban and rural in the Malayalam speaking children of India. Thirty typically developing children, age ranging from 3-4 years participated in the study. The speech sample (minimum 50 utterances) was recorded from each child in a quiet room at home or school environment and recorded using PRAAT software. The result of the present study was that rural children exhibit more phonological processes than urban group.

Key words: Phonological processes, Malayalam language.

Introduction

Language refers to a rule based system of symbolic communication involving a set of small unit (syllables or words) that can be combined to yield an infinite number of larger language forms (Hoff & Naigles,2002). To learn the art of communication, using a language, is one of the early challenges that children face. This task requires a mastery of four types of skills namely, Syntax (Syntax structure), semantics (word and contextual meaning), pragmatics (language used) and phonology (speech sounds and sequencing). All these skills are obviously interrelated and an inadequacy in either of these skills may lead to a communicative difficulty.

Phonology is the study of sound structures in language, which is different from the study of sentence structures (syntax), word structures (morphology), or how languages change over time (historical_linguistics). But this is insufficient. An important feature of the structure of a sentence is how it is pronounced--its sound structure. The pronunciation of a given word is also a fundamental part of the structure of a word. And certainly the principles of pronunciation in a language are subject to change over time. So phonology has a relation to numerous domains of linguistics.

Various classification systems of phonologic processes have been devised but they share some common features (Hodson, 1980; Ingram, 1981; Khan, 1985). Phonological Processes can be broadly described on the basis of occurrence of the Phonological Processes present during the production of consonants and vowels. According to Grunwell (1985), phonological processes can be characterized into three major categories:

1. Syllable Structure Processes
2. Substitution Processes
3. Assimilation Processes

Abundant research in western languages focuses on phonological development and various processes seen in developing children. Also several Indian studies focused on the similar area in a variety of Indian Languages like Tamil, Kannada, Hindi and Malayalam (Bharathy, 2001; Ramadevi & Prema 2002; Rahul, 2006).

However, most of the Indian population resides not in urban areas, but in rural areas with living conditions and facilities being very much different from the urban areas. Despite of this, only a limited amount of research studies focuses on children residing in these rural areas of India. The knowledge of phonological development has significant value in the clinical population to determine whether a child is phonologically disordered and needs intervention. However, a limited understanding of phonological development and a scarcity of data to evaluate difference between the language conditions seen in urban and rural children might lead to a risk

of misdiagnosis. Hence, the present study focusses on comparing the phonological processes across urban and rural Malayalam speaking children of India.

Materials and Methodology

Thirty typically developing children, age ranging from 3-4 years participated in the study. Among these, fifteen children were selected from the urban areas with middle to high socioeconomic status. The other group (fifteen) of children was selected from the rural areas with low socio economic status.

Single Word Production - A Malayalam Articulation Test was administered on each child after presenting adequate test trials and instructions. The test included target consonants, diphthongs and vowels to be tested in initial, medial and final position.

The speech sample (minimum 50 utterances) was recorded from each child in a quiet room at home or school environment. Subjects were seated comfortably and rapport was build up with the child before eliciting the target speech sample. Each child was presented with words and child has to repeat it back. The responses of every child were recorded.

The responses of all the subjects were recorded in PRAAT (5.3.43; Boersma & Weenink, 2012) using Lenovo G580 laptop and digital sound stereo headphones (SSD- HP-202).

The recorded sample analysis involved transcription of speech sample of all the subjects using broad transcription (international phonetic alphabets 1996). Furthermore, each sample was analyzed for identifying the phonological processes operating in the child's speech. The phonological processes were grouped into three major types, namely, syllable structure processes, substitution processes and assimilatory processes.

Results and Discussion

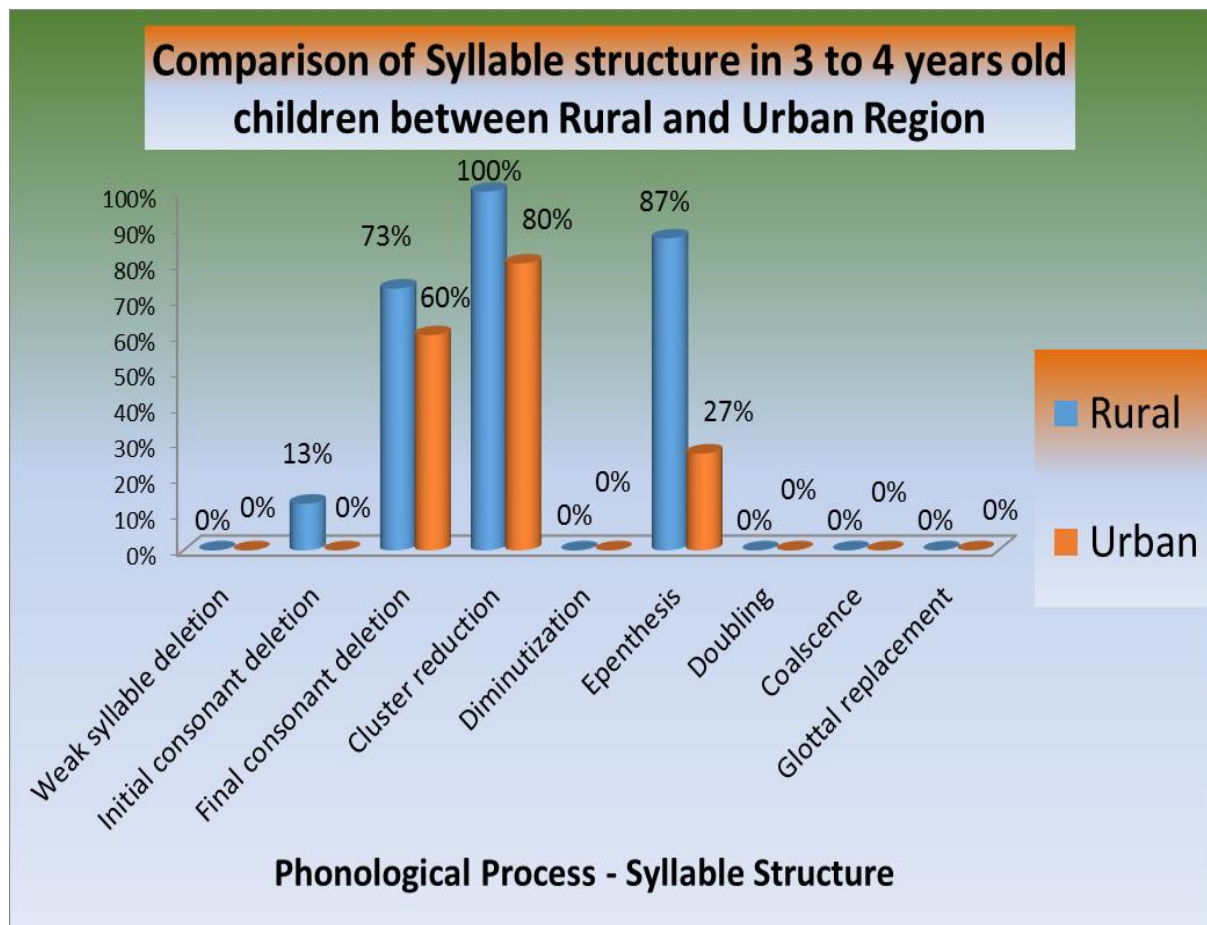
The present study aimed at studying the phonological processes occurring among 3-4 years old typically developing, Malayalam speaking Urban and Rural children.

The phonological processes were classified into the three groups, namely:

- Syllable structure processes
- Substitution processes
- Assimilation processes

The comparison of two groups, Urban and Rural, in terms of percentage of subjects is graphically represented in figure.

Fig 1: Percentage of subjects who exhibit different phonological processes in two groups



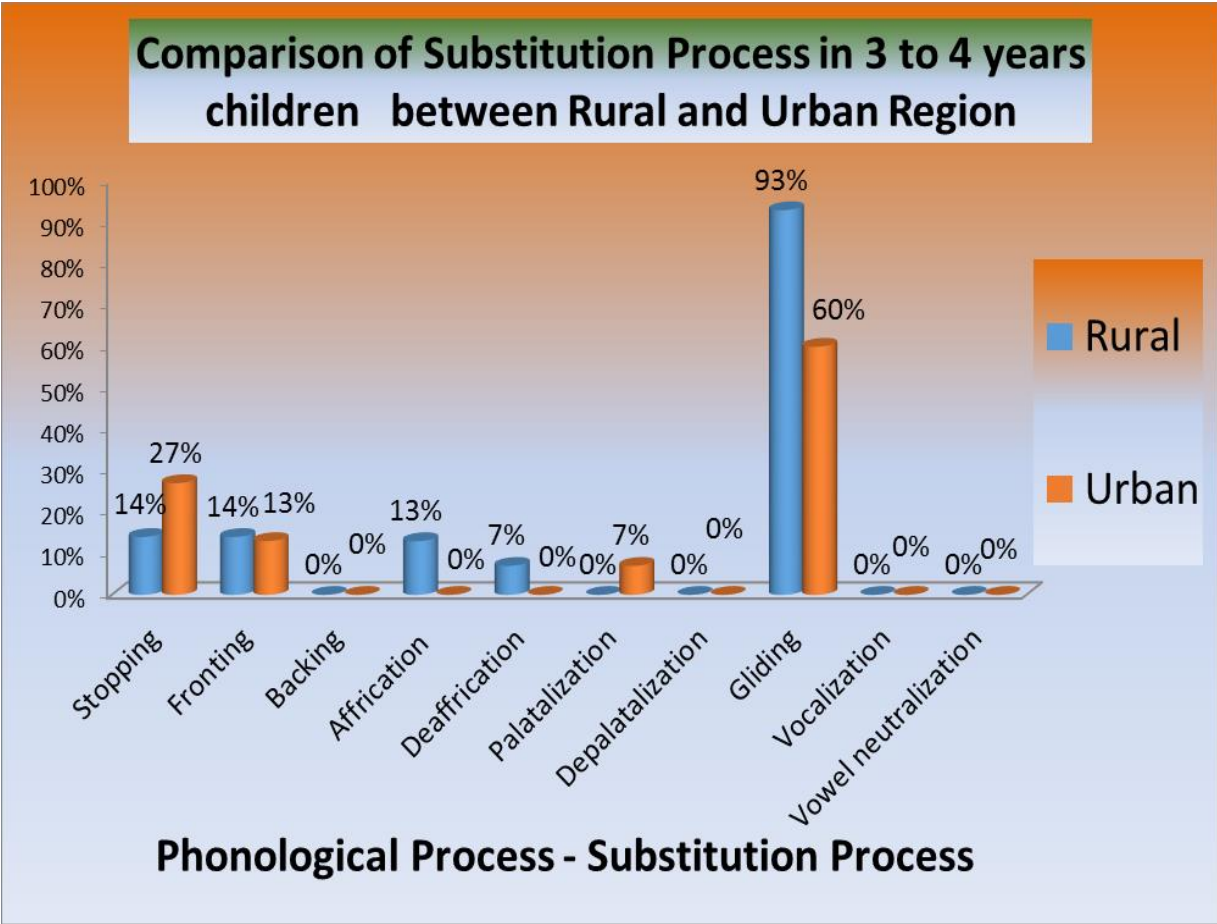


Fig 2: Percentage of subjects who exhibit different phonological processes in two groups

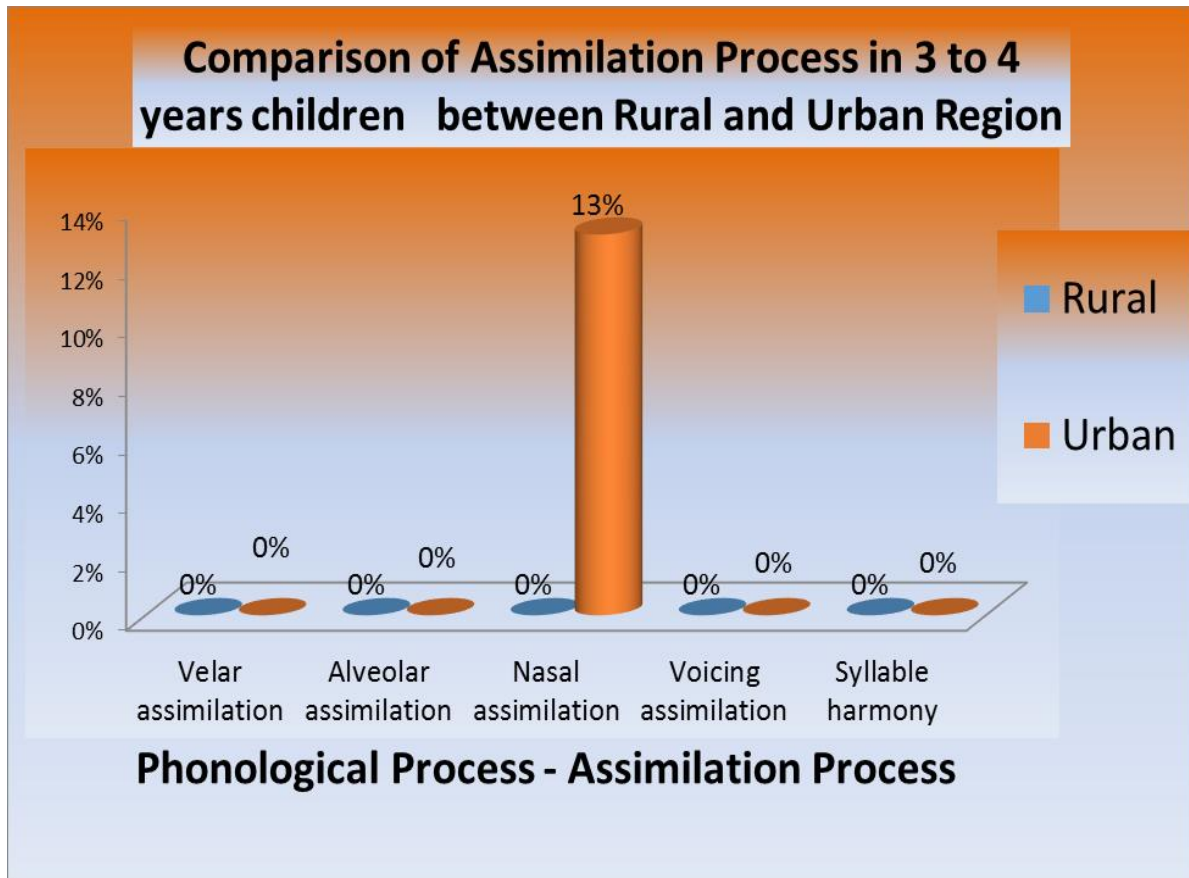


Fig 3: Percentage of subjects who exhibit different phonological processes in two groups

On summarizing the above findings, it was noted that rural children exhibits more phonological processes than urban group. Comparisons across the two groups revealed difference in terms of the mean correct responses which is higher in urban children relative to rural children. Most of the Phonological Processes are common to both the groups, though rural group was seen to produce various dialectal differences.

Discussion

The results over the findings reveal that the occurrence of Phonological Processes in 3-4 years old Urban and Rural children is a common phenomenon, attributed to an incomplete/ developing speech sound acquisition thereby, giving rise to simplification of phonological aspects. The study revealed similar type of Phonological Processes across both groups with cluster reduction, consonant deletion, weak syllable deletion, epenthesis, fronting, gliding,

Language in India www.languageinindia.com ISSN 1930-2940 15:5 May 2015

Anitha Simon, Shruthi L., Rajalekshmi S., Jenny Mevis D'Souza and Satish Kumaraswamy
Phonological Processes in Malayalam Speaking 3-4 Year Old Urban and Rural Children

palatalization, aspiration, nasal assimilation being the common types. The findings correlated with those of Poothari (1998) who revealed cluster reduction, epenthesis, stopping, fronting and palatalization to be common among 3-4 years old Malayalam speaking children.

The second finding of the study revealed lower percentage of correct responses and hence higher Phonological Processes in Rural children when compared to those in urban children. Perhaps, the limited educational facilities and lack of parental attention given to a child's utterances can be attributable to the greater number of errors seen in rural children. It was noted during the study that people living in Urban India have much better living and health conditions than those in rural areas. Rural areas are generally economically poor when compared to urban areas, especially in India, and the amount of attention and care given to children is very limited. Thus, perhaps the rural children make more errors of sounds without any means of learning the correct production. Also, in rural India, the quality of education is much lower than that in urban areas. This might lead to less developed metalinguistic and cognitive skills, which may be one of the major reasons for more Phonological Processes. The standard of living, health care and other facilities might also minimally contribute to the linguistic differences seen in urban and rural children.

Summary and Conclusion

In the present study an attempt was made to study the different phonological processes occurring in 3-4 year old typically developing, Malayalam speaking Urban and Rural children. In total, thirty children, fifteen each in the Urban and Rural group were included in study. The study involved single word production using Malayalam Articulation Test which included target consonants, diphthongs and vowels to be tested in all initial and final position. The elicited target words were audio recorded and later analyzed for identifying various phonological processes operating in the speech of children.

Statistical analyses revealed that children of both the groups demonstrated a wide array of phonological processes. The higher percentage of phonological processes in rural children when compared to those in urban children could be attributed to the limited educational facilities and lack of parental attention given to a rural child's utterances. It was also noted during the study

Language in India www.languageinindia.com ISSN 1930-2940 15:5 May 2015

Anitha Simon, Shruthi L., Rajalekshmi S., Jenny Mevis D'Souza and Satish Kumaraswamy
Phonological Processes in Malayalam Speaking 3-4 Year Old Urban and Rural Children

that people living in urban area have much better living and health conditions than those in rural areas.

Limitations of the Study

- Equal number of boys and girls are not considered in the study.
- Since the subjects involved were very young (2-3 years), it was not possible to elicit all the target words from a few subjects.

Future Directions

- Future studies should focus on broader data collection.
- Furthermore, future studies should involve comparison across children in different age groups.
- The study can be also extended to different Indian languages.

References

- Bharathy, R. (2001). Development of phonological processes of 3-4 years old normal Tamil speaking children. Unpublished Masters Dissertation submitted to the University of Mysore, India.
- Boersma, P. & Weenink, D. (2013). Praat: doing phonetics by computer (Computer Program).Version 5.3.43, retrieved 27 March 2013 from <http://www.praat.org/>
- Grunwell, P. (1985). Phonological development in phonological disability. Topics in Language Disorders, 3, 62-76.
- Hodson, B.W. (1980). The assessment of phonological processes. Danville, IL: Interstate Printers & Publishers.
- Hoff, E.L., & Naigles, M. (2002). "How children use input to acquire a lexicon". Child Development, 73, 2, 418-433.
- Ingram, D. (1981). Procedures for the Phonological Analysis of children's Language. Baltimore: University Park Press.
- International Phonetic Alphabet (1996). International Phonetic Association (IPA), Handbook, 183.

- Khan, L. (1985). Strategies for phonological intervention. In Assessment of Articulation and Phonological disorders. N.J. Eaglewood Cliffs: Prentice Hall, 1980.
- Pootheri, M. (1998). Signal to Syntax: Bootstrapping from Speech to Grammar in Early Acquisition. Mahwah, NJ: Earlbaum.
- Rahul, M. (2006). Study of Phonological Processes of 2-3 years old Hindi speaking normal children. Unpublished Masters Dissertation submitted to University of Mysore, India.
- Ramadevi, K.J.S., & Prema, K.S. (2002). Phonological profile in Kannada: A study on Hearing impaired. PhD Thesis submitted to the University of Mysore, India.
-

Anitha Simon
Second Year Post Graduate Student
Dr. M.V. Shetty College of Speech and Hearing
Maladi Court, Kavoor
Mangalore- 575015
Karnataka
India
anithamampallil@gmail.com

Shruthi L
Second Year Post Graduate Student
Dr. M.V. Shetty College of Speech and Hearing
Maladi Court, Kavoor
Mangalore- 575015
Karnataka
India
Lachus.lakshmi@gmail.com

Rajalekshmi.S
Second Year Post Graduate Student
Dr. M.V. Shetty College of Speech and Hearing
Maladi Court, Kavoor
Mangalore- 575015
Karnataka
India
srajalekshmi1990@gmail.com

Jenny Mevis D'souza
Second Year Post Graduate Student
Dr. M.V. Shetty College of Speech and Hearing
Maladi Court, Kavoor

Language in India www.languageinindia.com ISSN 1930-2940 15:5 May 2015

Anitha Simon, Shruthi L., Rajalekshmi S., Jenny Mevis D'Souza and Satish Kumaraswamy
Phonological Processes in Malayalam Speaking 3-4 Year Old Urban and Rural Children

Mangalore- 575015
Karnataka
India
jennymavis1992@gmail.com

Mr. Satish Kumaraswamy
Principal
Dr. M.V. Shetty College of Speech and Hearing
Maladi Court, Kavoov
Mangalore- 575015
Karnataka
India
sat8378@yahoo.com