

---

## **Segmental Phonemes of Sinhala and Marathi: A Contrastive Study**

---

Kapugollawe Anandakiththi <sup>1</sup>

---

### **Abstract**

This research article presents a comprehensive analysis of the phonemic systems in Sinhala and Marathi, offering a detailed comparison of various linguistic aspects. While this analysis primarily focuses on segmental phonemes, it should be noted that suprasegmental features are not included in this study. The following aspects have been meticulously examined and compared: Phonemic inventory, number of phonemes, vowels, consonants, distribution of phonemes, the positions of occurrence showing similarities and differences, consonant clusters, medial geminated, homorganic clusters, and structure of syllables. This in-depth examination provides valuable insights into the phonological characteristics of Sinhala and Marathi, shedding light on both their shared traits and distinctive elements.

**Keywords:** Phonemic system, Sinhala and Marathi languages, Occurrence, Similarities, Differences.

**Department of Linguistics, University of Kelaniya**

**Date accepted – 16/10/2024**

## **Introduction**

Numerous languages are spoken throughout the South Asian region. They belong to different language families. The languages taken for the present study, Sinhala, and Marathi, belong to the Indo-Aryan (IA) sub-branch of the Indo-European language family. Marathi is usually included in the western subgroup of IA, while Sinhala is included under the southwestern sub-type (1991, Colin P. Masica, *The Indo-Aryan Languages*). These two languages are important ones with a long history and their own literature. There are three languages spoken in Sri Lanka: Sinhala, Tamil, and English. Sinhala is one of the official languages of Sri Lanka and is spoken by the majority of the population, with over 16 million speakers (2012, Census Report, Sri Lanka); whereas Marathi is the official language of Maharashtra, India, and is spoken by more than 90 million speakers (2011, Census Report, India) in the state of Maharashtra alone.

There are thirteen vowels and twenty-five consonant phonemes in Sinhala (Gair, J.W., 1998), whereas Marathi has two diphthongs, six vowels, and forty consonants (Dhongde & Kasi Wali, 2009). Therefore, the number of phonemes in Sinhala is less than the Marathi phonemes. When compared with Sinhala, Marathi has twelve phonemes more. For this study, only segmental phonemes are considered.

## **Methodology:**

Although Sinhala and Marathi belong to the same language family, they exhibit both differences and similarities in their phonological systems. Each language possesses its own unique phonological structure. Therefore, this analysis aims to deconstruct the phonological components of both languages, encompassing vowels, consonants, and other distinctive features, to discern their phonological units. Subsequently, phoneme inventories will be

developed for each language, cataloging all distinct sounds alongside their corresponding IPA symbols. Following this, a comparison between the phonemes of one language and those of the other will be conducted, scrutinizing similarities and differences in terms of place and manner of articulation, as well as vowel characteristics. Additionally, an examination of sound patterns within and across languages will occur, which involves pinpointing phonotactic constraints, phonological processes, and allophonic variations. Discrepancies in phonological inventories or patterns between the two languages will be documented, such as sounds present in one language but absent in the other, disparities in phonotactics, or unique allophonic rules. Subsequently, all language-specific phonological rules or processes will be identified and compared, including instances where sounds undergo changes in various environments or due to linguistic factors. Finally, conclusions will be drawn regarding the similarities and differences in phonological systems between the two languages, followed by a discussion of the implications for theoretical linguistics.

### **Hypothesis and aims:**

The study posits two hypotheses:

1. Sinhala and Marathi will possess distinct inventories of consonants and vowels owing to their unique phonological systems.
2. Sinhala and Marathi will demonstrate disparate phonotactic constraints affecting the permissible sequences of sounds within words.

The study delineates two aims:

1. To juxtapose the segmental characteristics of Sinhala and Marathi languages and discern disparities in their consonant and vowel inventories.

2. To scrutinize the phonotactic patterns between Sinhala and Marathi languages and ascertain their influence on syllable structure and word formation.

**Discussion:**

The vowel charts of Sinhala and Marathi are listed below:

**Sinhala Vowel Chart**

*Table 01*

|             | <b>Front<br/>Short<br/>Long</b> | <b>Central<br/>Short<br/>long</b> | <b>Back<br/>Short<br/>Long</b> |
|-------------|---------------------------------|-----------------------------------|--------------------------------|
| <b>High</b> | <i>i</i><br><i>i:</i>           |                                   | <i>u</i><br><i>u:</i>          |
| <b>Mid</b>  | <i>e</i><br><i>e:</i>           | <i>ə</i>                          | <i>o</i><br><i>o:</i>          |
| <b>Low</b>  | <i>æ</i><br><i>æ:</i>           |                                   | <i>a</i><br><i>a:</i>          |

**Marathi Vowel Chart**

*Table 02*

|              | Front<br>Short | Central<br>Short | Back<br>Short |
|--------------|----------------|------------------|---------------|
| High         | i              |                  | u             |
| High-<br>Mid | e              |                  | o             |
| Mid          | əi, æ*         | ə                | əu, ɔ*        |
| Low          |                | a                |               |

(\*English borrowings)

When considering the vowel charts provided above, the following aspects become clear. All the Sinhala vowels except mid central short vowel /ə/, have their corresponding long vowels, i.e. /i:/, /u:/, /e:/, /o:/, /æ:/ and /a:/ but Marathi does not have any such long vowels. Marathi has mid-front diphthong /əi/ and mid-back diphthong /əu/ but Sinhala does not have them. Therefore, the types of vowels that are not completely present in each other are /i:/, /u:/, /e:/, /o:/, /æ:/, /a:/ and /əi/, /əu/. The presence of these sounds in these languages can be considered as a specific characteristic of either language.

The consonant charts of Sinhala and Marathi are as follows:

**Supplementary:**

*For the sake of easier comparison, the following sounds are not presented as in the IPA chart instead, they are presented as follows.*

---

|                                    |             |
|------------------------------------|-------------|
| <i>Dental voiceless stop sound</i> | <i>/t̪/</i> |
| <i>Dental voiced stop sound</i>    | <i>/d̪/</i> |
| <i>Retroflex voiceless sound</i>   | <i>/ɭ/</i>  |
| <i>Retroflex voiceless sound</i>   | <i>/ɖ/</i>  |
| <i>Retroflex voiceless sound</i>   | <i>/ɳ/</i>  |
| <i>Palatal stop voiced sound</i>   | <i>/j/</i>  |
| <i>Palatal nasal sound</i>         | <i>/ɲ/</i>  |
| <i>Palatal seme-vowel sound</i>    | <i>/y/</i>  |

**Sinhala Consonant Chart**

*Table 03*

|                           |           | Labial               | Dental                | Alveolar             | Palatal              | Velar                | Glottal  |
|---------------------------|-----------|----------------------|-----------------------|----------------------|----------------------|----------------------|----------|
| <b>Stops</b>              | voiceless | <i>p</i>             | <i>t̪</i>             | <i>t</i>             | <i>c</i>             | <i>k</i>             |          |
|                           | voiced    | <i>b</i>             | <i>d̪</i>             | <i>d</i>             | <i>j</i>             | <i>g</i>             |          |
| <b>Prenasalized Stops</b> | voiced    | <i><sup>m</sup>b</i> | <i><sup>n</sup>d̪</i> | <i><sup>n</sup>d</i> | <i><sup>ɲ</sup>j</i> | <i><sup>ɳ</sup>g</i> |          |
| <b>Nasals</b>             | voiced    | <i>m</i>             | <i>n</i>              |                      | <i>ɲ</i>             | <i>ŋ</i>             |          |
| <b>Fricatives</b>         | voiceless |                      | <i>s</i>              |                      |                      |                      | <i>h</i> |
| <b>Lateral</b>            | voiced    |                      |                       | <i>l</i>             |                      |                      |          |
| <b>Flap</b>               | voiced    |                      |                       | <i>r</i>             |                      |                      |          |
| <b>Semi-vowels</b>        | voiced    | <i>w</i>             |                       |                      | <i>y</i>             |                      |          |

## Marathi Consonant Chart

Table 04

|                   |               | Lab<br>ial | De<br>n-<br>tal | Alv<br>e-<br>ola<br>r | Retr<br>o-<br>flex | Alve<br>o-<br>Pala<br>tal | Vel<br>ar  | Glottal  |
|-------------------|---------------|------------|-----------------|-----------------------|--------------------|---------------------------|------------|----------|
| <b>Stops</b>      | vl.una<br>sp  | <i>P</i>   | <i>ṭ</i>        |                       | <i>ṭ</i>           |                           | <i>k</i>   |          |
|                   | vl.asp        | <i>Ph</i>  | <i>ṭh</i>       |                       | <i>ṭh</i>          |                           | <i>kh</i>  |          |
|                   | vd.un<br>asp  | <i>b</i>   | <i>ḍ</i>        |                       | <i>ḍ</i>           |                           | <i>g</i>   |          |
|                   | vd.asp        | <i>bh</i>  | <i>ḍh</i>       |                       | <i>ḍh</i>          |                           | <i>gh</i>  |          |
| <b>Nasals</b>     | vl.una<br>sp  | <i>m</i>   | <i>n</i>        |                       | <i>ṇ</i>           |                           | <i>(ṇ)</i> |          |
|                   | vd.asp        | <i>mh</i>  | <i>nh</i>       |                       | <i>ṇh</i>          |                           |            |          |
| <b>Fricatives</b> | voicel<br>ess |            |                 | <i>s</i>              |                    | <i>ś</i>                  |            | <i>h</i> |
| <b>Affricates</b> | vl.una<br>sp  |            |                 | <i>c</i>              |                    | <i>č</i>                  |            |          |
|                   | vl.asp        |            |                 |                       |                    | <i>čh</i>                 |            |          |
|                   | vd.un<br>asp  |            |                 | <i>j</i>              |                    | <i>ǰ</i>                  |            |          |
|                   | vd.asp        |            |                 | <i>jh</i>             |                    | <i>ǰh</i>                 |            |          |
| <b>Laterals</b>   | vd.un<br>asp  |            |                 | <i>l</i>              | <i>ḷ</i>           |                           |            |          |
|                   | vd.asp        |            |                 | <i>lh</i>             |                    |                           |            |          |
| <b>Flap</b>       | vd.un<br>asp  |            |                 |                       |                    | <i>r</i>                  |            |          |
|                   | vd.asp        |            |                 |                       |                    | <i>rh</i>                 |            |          |
| <b>Semi-vowel</b> | vd.un<br>asp  | <i>w</i>   |                 |                       |                    | <i>y</i>                  |            |          |
|                   | vd.asp        | <i>wh</i>  |                 |                       |                    |                           |            |          |

As mentioned above, there are 25 consonants in Sinhala and 40 consonants in Marathi. In Sinhala, the voiceless unaspirated stops are /p/, /t̪/, /t/, /c/, /k/; whereas in Marathi /p/, /t̪/, /t/, and /k/ are the voiceless unaspirated stops. The interesting difference between these two languages are that alveolar /t/ and the palatal stop /c/ in Sinhala are absent in Marathi while the retroflex /t̪/ in Marathi is not found in Sinhala. The phonemes /p/, /t̪/, and /k/ are common in this series in both languages. Sinhala has five phonemes in this series, but Marathi has only four.

Marathi has voiceless aspirated stops: /ph/, /t̪h/, /t̪h/, and /kh/, but the complete series is absent in Sinhala.

In Sinhala, voiced unaspirated stops are /b/, /d̪/, /d/, /j/, /g/. Marathi: /b/, /d̪/, /d/ and /g/. In this series, the alveolar /d/ and retroflex /d̪/ phonemes contrast respectively between Sinhala and Marathi. The palatal voiced unaspirated stop /j/ is absent in Marathi. The rest of the phonemes of this series are similar in both languages.

In the voiced aspirated stop series, Marathi has four phonemes: /bh/, /d̪h/, /d̪h/, and /gh/, but the complete series is absent in Sinhala.

With regard to stop phonemes of these languages, however, Sinhala has unaspirated voiceless and voiced palatal phonemes: /c/ and /j/; whereas in Marathi they are absent. On the other hand, Marathi has voiceless and voiced aspirated stop phonemes: /ph/, /t̪h/, /t̪h/, /kh/, /bh/, /d̪h/, /d̪h/ and /gh/; whereas Sinhala has none of these phonemes and thus highlights a drastic difference.

In the nasal series, Sinhala has three phonemes: /m/, /n/, and /ɳ/; Marathi has six nasals: /m/, /n/, /ɳ/, /mh/, /nh/, /ɳh/. The interesting difference between these two languages are the absence of palatal nasal /ɳ/ in Marathi which is a main source of asymmetry in its phonemic system and in Sinhala, retroflex nasal /ɳ/ and aspirated nasal /mh/, /nh/, /ɳh/ phonemes are absent.

Sinhala has five prenasalized phonemes: /<sup>m</sup>b/, /<sup>n</sup>d̪/, /<sup>n</sup>d/ /<sup>j</sup>/ and /<sup>g</sup>/, but such a series is lacking in Marathi. Hence, this is also another significant difference between these languages.

In the fricative series Sinhala has only two phonemes /s/ and /h/, but Marathi has three in addition to alveo-palatal fricative /ʃ/. Therefore, this is another asymmetry between these two languages. Regarding the fricative series, one more difference is noted, i.e. the phoneme /s/ in Sinhala is dental while in Marathi it is alveolar.

In the affricate series, Marathi has seven phonemes: /c/, /č/, /čh/, /j/,



/jh/, /j/ and /jh/; Sinhala has none of these phonemes and thus highlights a drastic difference between these languages.

While Sinhala has only one lateral phoneme. It is alveolar /l/, while Marathi has three lateral phonemes: /l/, /lh/ and /l/. The main difference here is that Sinhala does not have the aspirated lateral phoneme /lh/, as well as the retroflex lateral /l/. So, this is also one of the main asymmetries found between these languages.

Another significant feature of asymmetry between these two languages is the flap phoneme series, i.e. Sinhala has only one alveolar flap phoneme, namely /r/; Marathi has two phonemes: unaspirated and aspirated alveo-palatals, namely /r/ and /rh/. In the semi-vowel series, Sinhala has two phonemes: /w/ and /y/, but Marathi has three, in addition, to a bilabial aspirated /wh/. Though the Sinhala semi-vowel /y/ is palatal, in Marathi it is alveo-palatal. However, the absence of bilabial /wh/ in Sinhala is a major difference.

In summary, the consonant phonemes of Sinhala which are absent in Marathi are /t/, /c/, /ñ/, /<sup>m</sup>b/, /<sup>n</sup>ḍ/, /<sup>n</sup>d/ and /<sup>n</sup>g/; those of Marathi which are not found in Sinhala are /ph/, /t<sup>h</sup>/, /t<sup>h</sup>/, /kh/, /bh/, /ḡh/, /ḡh/, /gh/, /ṇ/, /mh/, /nh/, /ṇh/, /š/, /č/, /čh/, /jh/, /j/, /jh/, /l/, /lh/, /rh/ and /wh/.

### **Distribution of Phonemes**

#### **Positions of Occurrence of Vowels**

##### **Sinhala:**

*Table 05*

| <b>Vowel<br/>Phoneme</b> | <b>Initial</b> | <b>Medial</b> | <b>Final</b> |
|--------------------------|----------------|---------------|--------------|
| /i/                      | +              | +             | +            |
| /i:/                     | +              | +             | +            |
| /u/                      | +              | +             | +            |

|      |   |   |   |
|------|---|---|---|
| /u:/ | + | + | + |
| /e/  | + | + | + |
| /e:/ | + | + | + |
| /o/  | + | + | + |
| /o:/ | + | + | + |
| /ə/  | - | + | + |
| /æ/  | + | + | + |
| /æ:/ | + | + | + |
| /a/  | + | + | + |
| /a:/ | + | + | + |

**Marathi:**

Table 06

| <b>Vowel<br/>Phoneme</b> | <b>Initial</b> | <b>Medial</b> | <b>Final</b> |
|--------------------------|----------------|---------------|--------------|
| /i/                      | +              | +             | +            |
| /u/                      | +              | +             | +            |
| /e/                      | +              | +             | +            |
| /o/                      | +              | +             | +            |
| /əi/                     | +              | +             | +            |

|      |   |   |   |
|------|---|---|---|
| /ə/  | + | + | + |
| /əu/ | + | + | + |
| /a/  | + | + | + |

Taking only the common vowels found in both the languages into consideration, we find Marathi /ə/ occurs in all three positions, while Sinhala /ə/ occurs in two positions only, i.e. medial and final (refer to Table 5 and 6). Other common vowels namely /i/, /u/, /e/, /o/ and /a/ can occur in all the positions (initial, medial, and final). The long vowels in Sinhala occur in all the positions, but they are absent in Marathi; the diphthongs in Marathi occur in all three positions but they are absent in Sinhala.

Positions of occurrence of consonants

**Sinhala:**

*Table 07*

| <b>Consonant<br/>Phoneme</b> | <b>Initial</b> | <b>Medial</b> | <b>Final</b> |
|------------------------------|----------------|---------------|--------------|
| /p/                          | +              | +             | +            |
| /t̪/                         | +              | +             | +            |
| /t̪ʰ/                        | +              | +             | -            |
| /c/                          | +              | +             | -            |
| /k/                          | +              | +             | +            |
| /b/                          | +              | +             | +            |
| /d̪/                         | +              | +             | -            |

|                   |   |   |   |
|-------------------|---|---|---|
| /ḍ/               | + | + | - |
| /j/               | + | + | - |
| /g/               | + | + | - |
| / <sup>m</sup> b/ | - | + | - |
| / <sup>n</sup> ḡ/ | - | + | - |
| / <sup>v</sup> d/ | - | + | - |
| / <sup>v</sup> ḡ/ | - | + | - |
| / <sup>v</sup> g/ | - | + | - |
| /m/               | + | + | + |
| /n/               | + | + | + |
| /ñ/               | + | + | - |
| /s/               | + | + | + |
| /h/               | + | + | - |
| /l/               | + | + | + |
| /r/               | + | + | - |
| /w/               | + | + | + |
| /y/               | + | + | + |

**Marathi:**

*Table 08*

| <b>Consonant Phoneme</b> | <b>Initial</b> | <b>Medial</b> | <b>Final</b> |
|--------------------------|----------------|---------------|--------------|
| /p/                      | +              | +             | +            |
| /ṭ/                      | +              | +             | +            |
| /t/                      | +              | +             | +            |

|       |   |   |   |
|-------|---|---|---|
| /k/   | + | + | + |
| /ph/  | + | + | + |
| /t̪h/ | + | + | + |
| /t̪h/ | + | + | + |
| /kh/  | + | + | + |
| /b/   | + | + | + |
| /ḍ/   | + | + | + |
| /ḍ/   | + | + | + |
| /g/   | + | + | + |
| /bh/  | + | + | + |
| /ḍh/  | + | + | + |
| /ḍh/  | + | + | + |
| /gh/  | + | + | + |
| /m/   | + | + | + |
| /n/   | + | + | + |
| /ṇ/   | - | + | + |
| /mh/  | + | + | - |
| /nh/  | + | + | - |
| /ṇh/  | + | + | - |
| /c/   | + | + | + |
| /č/   | + | + | - |
| /čh/  | + | + | - |
| /j/   | + | + | + |
| /j̃/  | + | + | - |
| /jh/  | + | + | + |
| /j̃h/ | + | + | - |
| /s/   | + | + | + |
| /š/   | + | + | + |
| /h/   | + | + | + |

|      |   |   |   |
|------|---|---|---|
| /l/  | + | + | + |
| /ɭ/  | - | + | + |
| /lh/ | + | + | - |
| /r/  | + | + | + |
| /rh/ | + | + | - |
| /w/  | + | + | + |
| /y/  | + | + | + |
| /wh/ | + | + | - |

Here the focus will be only on the common consonants which are present in both languages. Common consonants of both the languages are /p/, /ɭ/, /k/, /ɖ/, /g/, /m/, /n/, /s/, /h/, /l/, /r/, /w/ and /y/. The interesting feature is that all the common consonants of Marathi are found to occur in all the three positions, but in the case of Sinhala consonants namely /t/, /ɖ/, /d/, /g/, /h/ and /r/ do not occur in final position but they occur only in initial and medial positions. Other common consonants of Sinhala have similar distribution in Marathi. In other words, they occur similarly in both languages.

**Positions of Occurrence Showing Similarities**

*Table 09*

| Consonants | Initial | Medial | Final |
|------------|---------|--------|-------|
| /p/        | +       | +      | +     |
| /ɭ/        | +       | +      | +     |
| /k/        | +       | +      | +     |
| /b/        | +       | +      | +     |

|     |   |   |   |
|-----|---|---|---|
| /m/ | + | + | + |
| /n/ | + | + | + |
| /s/ | + | + | + |
| /l/ | + | + | + |
| /w/ | + | + | + |
| /y/ | + | + | + |

### **Positions of occurrence showing differences**

Here, S stands for Sinhala and M stands for Marathi.

*Table 10*

| <b>Consonant</b> | <b>Lang.</b> | <b>Initial</b> | <b>Medial</b> | <b>Final</b> |
|------------------|--------------|----------------|---------------|--------------|
| /t/              | S            | +              | +             | -            |
| /t/              | M            | +              | +             | +            |
| /ḍ/              | S            | +              | +             | -            |
| /ḍ/              | M            | +              | +             | +            |
| /d/              | S            | +              | +             | -            |
| /d/              | M            | +              | +             | +            |
| /g/              | S            | +              | +             | -            |
| /g/              | M            | +              | +             | +            |
| /h/              | S            | +              | +             | -            |
| /h/              | M            | +              | +             | +            |
| /r/              | S            | +              | +             | -            |
| /r/              | M            | +              | +             | +            |

## **Consonant Clusters**

In this study, consonant combinations are commonly referred to as consonant clusters and no distinction is made between consonant sequences and consonant clusters. These two languages differ very much from each other from this point of view. Therefore, in this study a brief survey is provided of these clusters in general, and then two-member clusters in the medial position are taken for detailed study.

In comparison to Marathi, Sinhala has fewer number of initial consonant clusters, but most of them are found in the words borrowed from Sanskrit, Tamil, and English. On the other hand, most native speakers simplify them by using CVC structure instead of CC structure. The initial consonant clusters in Marathi are mostly formed of two-members, and very few three-member clusters are found. However, all these clusters are also found in borrowed words from Sanskrit and English, where they are either simplified or put into a non-initial position.-

Except for English borrowings, Sinhala as well as, Marathi do not allow word final consonant clusters. Hence, both languages are similar in the absence of final consonant clusters. Both languages are rich in having medial consonant clusters. Apart from Sanskrit borrowings, Sinhala does not have three-member clusters, whereas Marathi has a few. They are *-ply-*, *-mbd -*, *-ngd-*, *-mcy-* and *-nṭr-*. Therefore, in this analysis only the two-member clusters in medial position are taken for detailed study.

As both the languages have two-member medial consonant clusters, they have been compared here. For demonstration, two charts are given below from Sinhala and Marathi.

**Sinhala medial two-member clusters.**



Table 11

|                      | Succeeding member |          |          |          |          |          |          |          |          |          |          |          |          |          |                           |          |          |          |          |          |          |
|----------------------|-------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|---------------------------|----------|----------|----------|----------|----------|----------|
| First member         | <i>p</i>          | <i>b</i> | <i>ṭ</i> | <i>ḍ</i> | <i>t</i> | <i>Ḍ</i> | <i>c</i> | <i>j</i> | <i>k</i> | <i>g</i> | <i>m</i> | <i>n</i> | <i>ṇ</i> | <i>ṇ</i> | <i><sup>m</sup><br/>b</i> | <i>S</i> | <i>h</i> | <i>l</i> | <i>r</i> | <i>w</i> | <i>y</i> |
| <i>p</i>             | +                 |          | +        |          |          |          |          |          |          |          |          |          |          |          |                           | +        |          | +        | +        |          |          |
| <i>b</i>             |                   |          | +        |          |          |          |          |          |          |          |          |          |          |          |                           |          |          |          |          |          |          |
| <i>ṭ</i>             | +                 |          | +        |          |          |          |          |          |          | +        | +        | +        |          |          |                           | +        |          | +        | +        | +        | +        |
| <i>ḍ</i>             |                   |          | +        |          | +        |          |          |          |          |          |          |          |          |          |                           |          |          |          | +        |          | +        |
| <i>t</i>             |                   |          |          |          | +        |          |          |          |          |          |          |          |          |          |                           |          |          |          |          |          |          |
| <i>d</i>             |                   |          |          |          |          | +        |          |          |          |          |          |          |          |          |                           |          |          |          |          |          |          |
| <i>c</i>             |                   |          |          |          |          |          | +        |          |          |          |          |          |          |          |                           |          |          |          |          |          |          |
| <i>j</i>             |                   |          |          |          |          |          |          | +        |          |          |          |          |          |          |                           |          |          |          |          |          |          |
| <i>k</i>             |                   |          | +        |          |          |          |          |          | +        |          |          |          |          |          |                           | +        |          |          | +        | +        | +        |
| <i>g</i>             |                   |          |          |          |          |          |          |          |          | +        |          | +        |          |          |                           |          |          |          | +        |          |          |
| <i>m</i>             | +                 | +        |          |          |          |          |          |          |          |          | +        |          |          |          |                           |          |          |          |          |          |          |
| <i>n</i>             |                   |          | +        | +        |          |          |          |          |          |          |          | +        |          |          |                           |          |          | +        |          | +        |          |
| <i>ṇ</i>             |                   |          |          |          |          |          | +        | +        |          |          |          |          | +        |          |                           |          |          |          |          |          |          |
| <i>ṇ</i>             |                   |          |          |          |          |          |          |          | +        | +        |          |          |          |          |                           | +        | +        |          |          | +        | +        |
| <i><sup>m</sup>b</i> |                   |          |          |          |          |          |          |          |          |          |          |          |          |          |                           |          |          |          |          |          |          |
| <i>s</i>             | +                 | +        | +        |          |          |          |          |          |          | +        | +        | +        |          |          | +                         | +        |          |          | +        | +        |          |
| <i>h</i>             |                   |          |          |          |          |          |          |          |          |          |          |          |          |          |                           |          |          |          |          |          |          |
| <i>l</i>             | +                 |          | +        | +        |          |          |          |          | +        | +        | +        |          |          |          |                           |          |          | +        |          |          |          |
| <i>r</i>             | +                 | +        | +        | +        |          |          | +        | +        | +        | +        | +        | +        |          |          |                           | +        | +        |          |          | +        | +        |
| <i>w</i>             |                   |          |          |          |          |          |          |          |          |          |          |          |          |          |                           |          |          |          |          | +        |          |
| <i>y</i>             |                   |          |          |          |          |          |          |          |          |          |          |          |          |          |                           |          |          |          |          |          | +        |

Marathi medial two-member clusters

Table 12

|                                         | Succeeding member |          |           |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |  |
|-----------------------------------------|-------------------|----------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--|
| Fi<br>rs<br>t<br>m<br>e<br>m<br>be<br>r | <i>p</i>          | <i>b</i> | <i>bh</i> | <i>ṭ</i> | <i>ḍ</i> | <i>ṭ</i> | <i>ḍ</i> | <i>k</i> | <i>g</i> | <i>m</i> | <i>n</i> | <i>ṇ</i> | <i>s</i> | <i>ś</i> | <i>c</i> | <i>j</i> | <i>č</i> | <i>ĵ</i> | <i>l</i> | <i>ḷ</i> | <i>r</i> | <i>w</i> | <i>y</i> |  |
| <i>P</i>                                | +                 |          |           |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          | +        |          |          |          |  |
| <i>B</i>                                |                   | +        |           |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |  |
| <i>B</i><br><i>h</i>                    |                   |          |           |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |  |
| <i>ḷ</i>                                |                   |          |           | +        |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          | +        | +        |          |  |
| <i>ḍ</i>                                |                   |          |           |          | +        |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |  |
| <i>ṭ</i>                                |                   |          |           |          |          | +        |          | +        |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |  |
| <i>ḍ</i>                                |                   |          |           |          |          |          | +        |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |  |
| <i>K</i>                                |                   |          |           |          |          |          | +        | +        |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |  |
| <i>g</i>                                |                   |          |           |          |          |          |          |          | +        |          |          |          |          |          |          |          |          |          |          |          |          |          |          |  |
| <i>M</i>                                |                   |          | +         |          |          |          |          |          |          | +        |          |          |          |          |          |          |          |          |          |          |          |          | +        |  |
| <i>N</i>                                |                   |          |           |          |          |          |          |          |          |          | +        |          |          |          |          |          |          |          |          |          |          |          | +        |  |
| <i>ṇ</i>                                |                   |          |           |          |          | +        |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |  |
| <i>S</i>                                |                   |          |           | +        |          |          |          | +        |          |          |          |          | +        |          |          |          |          |          | +        |          |          |          |          |  |
| <i>Ś</i>                                |                   |          |           |          |          |          |          |          |          |          |          |          |          | +        |          |          |          |          |          |          | +        |          |          |  |
| <i>C</i>                                |                   |          |           |          |          |          |          |          |          |          |          |          |          |          | +        |          |          |          |          |          |          |          |          |  |
| <i>J</i>                                |                   |          |           |          |          |          |          |          |          |          |          |          |          |          |          | +        |          |          |          |          |          |          |          |  |
| <i>Č</i>                                |                   |          |           |          |          |          |          |          |          |          |          |          |          |          |          |          | +        |          |          |          |          |          |          |  |
| <i>Ĵ</i>                                |                   |          |           |          |          |          |          | +        |          |          |          |          |          |          |          |          |          | +        |          |          |          |          |          |  |
| <i>L</i>                                | +                 |          |           |          |          | +        |          | +        |          |          |          |          |          |          |          |          |          |          | +        |          |          |          |          |  |
| <i>ḷ</i>                                |                   |          |           |          |          |          |          |          |          |          |          | +        |          | +        |          |          |          |          |          | +        |          |          | +        |  |
| <i>R</i>                                |                   |          |           |          |          |          |          | +        |          |          |          | +        | +        | +        |          |          |          |          | +        |          | +        | +        |          |  |
| <i>W</i>                                |                   |          |           |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          | +        |          |  |
| <i>Y</i>                                |                   |          |           |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          | +        |  |

For comparative purposes, the common phonemes from both the languages which can be a part in the consonant cluster formation are considered. To prevent repetition, a series wise method of explanation is applied here for discussing the formation of consonant clusters, i.e. *p*-series, *b*-series, *t*-series, *d*-series, *k*-series, *g*-series, *m*-series, *n*-series *s*-series, *l*-series, *r*-series, *w*-series and *y*-series. So, here, all the phonemes mentioned above are the first members in the clusters. The comparison is done under the heading of ‘common clusters’ and ‘language specific clusters.’

**Common Clusters**

Clusters which are present in both the languages are known as common clusters. Table 13 provides common clusters of both the languages.

Table 13

| First member | Succeeding member |          |          |          |          |          |          |          |          |          |          |          |          |
|--------------|-------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|              | <i>p</i>          | <i>b</i> | <i>t</i> | <i>d</i> | <i>k</i> | <i>g</i> | <i>M</i> | <i>n</i> | <i>s</i> | <i>l</i> | <i>r</i> | <i>w</i> | <i>y</i> |
| <i>p</i>     | +                 |          |          |          |          |          |          |          |          |          |          |          |          |
| <i>b</i>     |                   | +        |          |          |          |          |          |          |          |          |          |          |          |
| <i>t</i>     |                   |          | +        |          |          |          |          |          |          |          | +        | +        |          |
| <i>d</i>     |                   |          |          | +        |          |          |          |          |          |          |          |          |          |
| <i>k</i>     |                   |          |          |          | +        |          |          |          |          |          |          |          |          |
| <i>g</i>     |                   |          |          |          |          | +        |          |          |          |          |          |          |          |
| <i>m</i>     |                   |          |          |          |          |          | +        |          |          |          |          |          |          |
| <i>n</i>     |                   |          |          |          |          |          |          | +        |          |          |          |          |          |
| <i>s</i>     |                   |          | +        |          |          |          |          |          | +        |          |          |          |          |
| <i>l</i>     | +                 |          |          |          | +        |          |          |          |          | +        |          |          |          |
| <i>r</i>     |                   |          |          |          | +        |          |          |          | +        |          |          | +        |          |
| <i>w</i>     |                   |          |          |          |          |          |          |          |          |          |          | +        |          |
| <i>y</i>     |                   |          |          |          |          |          |          |          |          |          |          |          | +        |

The common clusters are as follows:

|                  |                                             |
|------------------|---------------------------------------------|
| <i>p</i> -series | - <i>pp</i> -                               |
| <i>b</i> -series | - <i>bb</i> -                               |
| <i>t</i> -series | - <i>tt</i> -, - <i>tr</i> -                |
| <i>d</i> -series | - <i>dd</i> -                               |
| <i>k</i> -series | - <i>kk</i> -                               |
| <i>g</i> -series | - <i>gg</i> -                               |
| <i>m</i> -series | - <i>mm</i> -                               |
| <i>n</i> -series | - <i>nn</i> -                               |
| <i>s</i> -series | - <i>ts</i> -, - <i>ss</i> -                |
| <i>l</i> -series | - <i>lt</i> -, - <i>lk</i> -, - <i>ll</i> - |
| <i>r</i> -series | - <i>rk</i> -, - <i>rs</i> -, - <i>rw</i> - |
| <i>w</i> -series | - <i>ww</i> -                               |
| <i>y</i> -series | - <i>yy</i> -                               |

### Language Specific Clusters

Those clusters which are characteristically present in either language (Sinhala or Marathi) is considered as language specific clusters. Among them are the non-common cluster series of both the languages as they are language specific clusters themselves. In Sinhala they are *t*-series, *d*-series *c*-series, *j*-series, *ñ*-series, and *ŋ*-series; while in Marathi they are *ṭ*-series, *ḍ*-series, *ṇ*-series, *ṣ*-series, *c*-series *j*-series, *č*-series, *ǰ*-series and *l*-series. (Note: [*c*] and [*j*] symbols stand for ‘stop sounds’ in Sinhala, while they are affricates in Marathi).

Restricted to the common phonemes extracted from both the languages, the series of *b*, *w* and *y* do not have any language specific clusters in both the languages. Also, Marathi fails to show any language specific clusters in *p*-series, *t*-series, *d*-series and *g*-series; whereas Sinhala shows language specific clusters in all the series. Sometimes, Sinhala has more language specific clusters in a particular series. A table is produced below which shows language specific clusters.

*Note: S and M stand for Sinhala and Marathi respectively. The symbol S and M are used to make the difference in such a way that if one of the symbols fills up a slot, it means the language is having the cluster, and it is the language specific cluster of that language. The empty slot in this chart may either mean the occurrence of a common cluster category; or that it does not occur in that cluster category of either the languages or one of them.*

Table 14

| First member | <i>p</i> | <i>b</i> | <i>ṭ</i> | <i>ḍ</i> | <i>k</i> | <i>g</i> | <i>M</i> | <i>n</i> | <i>s</i> | <i>l</i> | <i>r</i> | <i>w</i> | <i>y</i> |
|--------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| <i>P</i>     |          |          | S        |          |          |          |          |          | S        | S        | S        |          |          |
| <i>B</i>     |          |          |          |          |          |          |          |          |          |          |          |          |          |
| <i>ṭ</i>     | S        |          |          |          |          | S        | S        | S        | S        | S        |          |          | S        |
| <i>ḍ</i>     |          | S        |          |          |          |          |          |          |          |          | S        |          | S        |
| <i>K</i>     |          |          | S        |          |          |          |          |          | S        |          | S        | S        | S        |
| <i>g</i>     |          |          |          |          |          |          |          | S        |          |          | S        |          |          |
| <i>M</i>     | S        | S        |          |          |          |          |          |          |          |          |          |          | M        |
| <i>N</i>     |          |          | S        | S        |          |          |          |          |          | S        |          | S        | M        |
| <i>S</i>     | S        | S        |          |          | M        | S        | S        | S        |          | M        | S        | S        |          |
| <i>L</i>     |          |          | S        | S        |          | S        | S        |          |          |          |          |          |          |
| <i>R</i>     | S        | S        | S        |          |          | S        | S        | S        |          | M        | M        |          | S        |
| <i>W</i>     |          |          |          |          |          |          |          |          |          |          |          |          |          |
| <i>Y</i>     |          |          |          |          |          |          |          |          |          |          |          |          |          |

The following are the (medial) language specific clusters:

|                |                  | Sinhala                                 |
|----------------|------------------|-----------------------------------------|
| <b>Marathi</b> |                  |                                         |
|                | <i>p</i> -series | <i>p̥t̥, ps, pl, pr</i>                 |
| Nil            |                  |                                         |
|                | <i>t</i> -series | <i>t̥p̥, tg, t̥m̥, tn, t̥s̥, tl, ty</i> |
| Nil            |                  |                                         |
|                | <i>d</i> -series | <i>d̥b̥, d̥r̥, d̥y̥</i>                 |
| Nil            |                  |                                         |
|                | <i>k</i> -series | <i>k̥t̥, ks, kr, kw, ky</i>             |
|                | <i>k̥d̥</i>      |                                         |
|                | <i>g</i> -series | <i>gn, gr</i>                           |
|                | Nil              |                                         |
|                | <i>m</i> -series | <i>mp, mb</i>                           |
|                | <i>my</i>        |                                         |
|                | <i>n</i> -series | <i>n̥t̥, n̥d̥, nl, nw</i>               |
|                | <i>ny</i>        |                                         |
|                | <i>s</i> -series | <i>sp, sb, sg, sm, sn, sr, sw</i>       |
|                | <i>sk, sl</i>    |                                         |
|                | <i>l</i> -series | <i>l̥t̥, l̥d̥, lg, lm</i>               |
|                | <i>l̥t̥</i>      |                                         |
|                | <i>r</i> -series | <i>rp, rb, rt, rd, rg, rm, rn, ry</i>   |
|                | <i>rl, rr</i>    |                                         |

### Medial Geminate and Homorganic Clusters

The previous section discussed about consonant clusters based on their occurrence in either or both the languages. Consonant clusters can be studied based on their internal composition too. Therefore, clusters may have the same sounds which are called geminate clusters. In other words, the geminates are used in the same point and manner of articulation. The other category is called homorganic clusters, though they are in the same point of articulation, they differ in manner of articulation.

## **Geminate**

Sinhala and Marathi have medial geminate clusters. However, the number of geminate clusters in Marathi (21) is higher than in Sinhala (17). Marathi geminate clusters occur with all consonants except all aspirated consonants, /ɸ/ and /h/. In Sinhala, the geminate clusters occur with all consonants exclusive of /h/ and /r/.

The following geminate clusters are common to both the languages.

-pp-, -bb-, -tt-, -dd-, -kk-, -gg-,  
-mm-, -nn-, -ll-, -ss-, -ww- and -yy-.

Marathi geminate clusters like -čč-, -jĵ-, -lġ-, -šš-, and -rr- are absent in Sinhala, while all the Sinhala geminates are present in Marathi. In brief, Marathi has language specific geminate clusters whereas Sinhala does not have them.

## **Homorganic Clusters**

Homorganic clusters are the combination of two phonemes which are produced in the same point of articulation, but with different manners of articulation. Such homorganic clusters occur in both the languages, but their number is very few: -mp-, -mb-, -nġ-, and -nġ- present in Sinhala. Marathi has two homorganic clusters, and they are -/s- and -nġ-. Interestingly, homorganic clusters found in Marathi are not found in Sinhala, and similarly, those found in Sinhala are not found in Marathi. Hence, the homorganic clusters of both the languages can be defined as language specific homorganic clusters. However, the numbers of such language specific homorganic clusters are very few; Sinhala has 4, and Marathi has 2.

## **Structure of Syllables**

Usually, a syllable is composed of an onset, a nucleus and a coda, but it is not necessary that every syllable must contain all these three components. However, in this section, a comparison of basic syllabic structures between Sinhala and Marathi is provided. The two languages have the following syllable types.

**Sinhala**

(i). Nucleus type: Sinhala has two sub-types, based on whether the first vowel is short or long.

|              |    |         |  |
|--------------|----|---------|--|
| (i)          | V  | /a/lə/  |  |
| “yams”       |    |         |  |
|              |    | /e/kə/  |  |
| “one”        |    |         |  |
| (ii)         | V: | /a:/lə/ |  |
| “love”       |    |         |  |
|              |    | /e:/kə/ |  |
| “that thing” |    |         |  |

(ii). Onset-nucleus type: This has four sub-types in Sinhala.

|       |           |           |         |
|-------|-----------|-----------|---------|
| (i)   | CV        | /ki/ri/   | ‘milk’  |
|       |           | /ba/lə/   |         |
|       | ‘power’   |           |         |
| (ii)  | CV:       | /ki:/ri/  |         |
|       | ‘thorns’  |           |         |
|       |           | /ba:/lə/  | ‘low’   |
| (iii) | CCV       | /kri/ya/  |         |
|       | ‘actions’ |           |         |
|       |           | /sri/ya/  | ‘glory’ |
| (iv)  | CCV:      | /pra:/ne/ | ‘life’  |

(iii). Nucleus-coda type: This has two sub-types in Sinhala.

|      |               |           |        |
|------|---------------|-----------|--------|
| (i)  | CV            | /al/lə/   | ‘palm’ |
|      |               | /æ/lə/    |        |
|      | ‘waterfall’   |           |        |
| (ii) | V:C           | /a:t̪t̪a/ |        |
|      | ‘grandfather’ |           |        |
|      |               | /a:c/ci/  |        |
|      | ‘grandmother’ |           |        |

(iv). Onset-nucleus-coda type: This has four sub-types in Sinhala.



---

|       |           |               |        |
|-------|-----------|---------------|--------|
| (i)   | CVC       | /wis/sə/      |        |
|       | ‘twenty’  |               |        |
|       |           | /kel/lə/      | ‘girl’ |
| (ii)  | CV:C      | /ke:n/ṭi/     |        |
|       | ‘angry’   |               |        |
|       |           | /ko:p/pe/     | ‘cup’  |
| (iii) | CCVC      | /pras/ne/     |        |
|       | ‘problem’ |               |        |
| (iv)  | CCV:C     | /pra:r/ṭə/na/ |        |
|       | ‘wishes’  |               |        |

**Marathi**

(i). Nucleus type: Marathi has two sub-types, based on whether the vowel is a monophthong or diphthong. They are

|          |   |           |  |
|----------|---|-----------|--|
| (i)      | V | /a/       |  |
| ‘aha!’   |   |           |  |
|          |   | /e/ke/ri/ |  |
| ‘single’ |   |           |  |
| (ii)     | V | /əi/      |  |
| ‘mother’ |   |           |  |
|          |   | /əu/kas/  |  |
| ‘time’   |   |           |  |

(ii). Onset-nucleus type: This has two sub-types in Marathi:

|          |     |          |  |
|----------|-----|----------|--|
| (i)      | CV  | /ṭo/     |  |
| ‘he’     |     |          |  |
|          |     | /ṭe/     |  |
| ‘that’   |     |          |  |
| (ii)     | CCV | /ṭya/cə/ |  |
| ‘his’    |     |          |  |
|          |     | /ḍrə/wə/ |  |
| ‘liquid’ |     |          |  |

(iii). Nucleus-coda type: In this, only one is possible in Marathi:

|    |          |       |
|----|----------|-------|
| VC | /am/cyə/ | ‘our’ |
|----|----------|-------|

---

|          |                          |                            |           |
|----------|--------------------------|----------------------------|-----------|
|          |                          |                            | /əw/wəl/  |
|          |                          | ‘best’                     |           |
| (iv).    | Onset-nucleus-coda type: | This has five sub-types in |           |
| Marathi: |                          |                            |           |
|          | (i)                      | CVC                        | /pək/ka/  |
|          | ‘fixed’                  |                            |           |
|          |                          |                            | /kəc/ca/  |
|          |                          | ‘raw’                      |           |
|          | (ii)                     | CVC                        | /kəik/    |
|          | ‘many’                   |                            |           |
|          |                          |                            | /wəir/ṇə/ |
|          |                          | ‘fodder’                   |           |
|          | (iii)                    | CCVC                       | /sṭhan/   |
| ‘places’ |                          |                            |           |
|          |                          |                            | /spas/ṭə/ |
|          |                          | ‘fodder’                   |           |
|          | (iv)                     | CCCVC                      | /ḡnyan/   |
|          | ‘knowledge’              |                            |           |
|          | (v)                      | CCCVC                      | /sṭrain/  |
|          | ‘suited to women’        |                            |           |

The most common syllabic structures of both the languages are V, CV, CCV, VC, CVC and CCVC. The important thing that can be noticed is that some of the Marathi syllabic structures which are not found in Sinhala are: V (diphthong), CVC, CCCVC and CCCVC. On the other hand, the Sinhala syllabic structures which are not found in Marathi are: V:, CV:, CCV:, V:C, CV:C and CCV:C.

**Conclusion**

In this article, the phonemic system of Sinhala and Marathi was discussed and compared. In doing so, the following aspects had

been taken up for comparison: phonemic inventory, number of phonemes, vowel and consonants, distribution of phonemes, the positions of occurrence showing similarities, the positions of occurrence showing differences, consonant clusters, medial geminated/homorganic clusters, and structure of syllables.

In examining vowels, the following aspects became clear. All Sinhala vowels, except the mid central short vowel /ə/, have their corresponding long vowels i.e. /i:/, /u:/, /e:/, /o:/, /æ:/ and /a:/, but Marathi does not have any such long vowels. While Marathi has mid front diphthong /əi/ and mid back diphthong /əu/; but Sinhala does not have them. Hence, the types of vowels which are not completely present in both languages are /i:/, /u:/, /e:/, /o:/, /æ:/, /a:/ and /əi/, /əu/.

There are 25 consonants in Sinhala and 40 consonants in Marathi. In Sinhala the voiceless unaspirated stops are /p/, /t̪/, /t/, /c/, /k/, and in Marathi /p/, /t̪/, /t/, and /k/ are the voiceless unaspirated stops. Interesting differences found between these two languages are /t/ in Sinhala is alveolar whereas in Marathi it is retroflex, and the palatal stop /c/ in Sinhala is absent in Marathi. The phonemes /p/, /t/ and /k/ are common, in this series, to both the languages. Sinhala has five phonemes in this series but, Marathi has four. Marathi has voiceless aspirated stops. They are /ph/, /t̪h/, /th/, and /kh/ but this series is completely absent in Sinhala.

In Sinhala voiced unaspirated stops are /b/, /d̪/, /d/, /j/, /g/; in Marathi: /b/, /d̪/, /d/ and /g/. The phoneme /d/ in Sinhala is alveolar whereas in Marathi it is retroflex /d̪/. The palatal voiced unaspirated stop /j/ is absent in Marathi. All the phonemes of this series are common to both languages. However, Sinhala has unaspirated voiceless and voiced palatal phonemes: /c/ and /j/ while in Marathi they are absent. On the other hand, Marathi has voiceless and voiced aspirated stop phonemes: /ph/, /t̪h/, /th/, /kh/, /bh/, /d̪h/, /dh/ and

/gh/. While Sinhala has none of these phonemes.

In the nasal series, Sinhala has three phonemes: /m/, /n/ and /ṇ/; Marathi has six nasals, namely /m/, /n/, /ṇ/, /mh/, /nh/, /ṇh/. The interesting differences between these two languages the absence of palatal nasal /ṇ/ in Marathi which is a main source of asymmetry in its phonemic system. In Sinhala, retroflex nasal /ṇ/ and aspirated nasal /mh/, /nh/, /ṇh/ phonemes are absent. Sinhala has four prenasalized phonemes namely /<sup>m</sup>b/, /<sup>n</sup>d/, /<sup>n</sup>d/ and /<sup>g</sup>g/; but such a series is absent in Marathi.

In the fricative series Sinhala has only two phonemes /s/ and /h/, but Marathi has three in addition to the alveo-palatal fricative /š/. An additional difference is the Sinhala dental phoneme /s/. While in Marathi is alveolar.

In the affricate series, Marathi has seven phonemes: /c/, /č/, /čh/, /j/, /jh/, /j/ and /jh/, while Sinhala has none.

Sinhala has only one lateral phoneme which is alveolar /l/, while Marathi has three lateral phonemes: /l/, /lh/ and /l/. Hence, the main difference here is that Sinhala does not have aspirated lateral phoneme /lh/ nor the retroflex lateral /l/.

Another significant marker of the asymmetry between these two languages is the flap phoneme series. i.e. Sinhala has only one alveolar flap phoneme namely /r/, whereas Marathi has two phonemes: unaspirated and aspirated alveo-palatals, namely /r/ and /rh/. In the semi-vowel series, Sinhala has two phonemes. They are /w/ and /y/, but Marathi has three, in addition to bilabial aspirated /wh/. Though the Sinhala semi-vowel /y/ is palatal, in Marathi it is alveo-palatal. The absence of bilabial /wh/ in Sinhala is another notable difference.

On the whole, the consonant phonemes of Sinhala which are absent in Marathi are: /ñ/, /<sup>m</sup>b/, /<sup>n</sup>d/, /<sup>n</sup>q/ and /<sup>n</sup>g/, and those of Marathi which are not found in Sinhala are /ph/, /t̪h/, /t̪h/, /kh/, /bh/, /d̪h/, /d̪h/, /gh/, /ṇ/, /mh/, /nh/, /ṇh/, /š/, /č/, /čh/, /jh/, /j/, /jh/, /l/, /lh/, /rh/ and /wh/.

The comparison on the distribution of vowel phonemes between these two languages was carried out only by taking the common vowels into consideration. We find Marathi /ə/ occurring in all three positions, while Sinhala /ə/ occurs in two positions only, i.e., medial, and final. Other common vowels namely /i/, /u/, /e/, /o/ and /a/ can occur in all the positions (initial, medial, and final). The long vowels in Sinhala occur in all the positions but, they are absent in Marathi, while the diphthongs in Marathi occur in all three positions, they are absent in Sinhala.

Common consonants to both the languages are /p/, /t̪/, /k/, /b/, /d̪/, /g/, /m/, /n/, /s/, /h/, /l/, /r/, /w/ and /y/. The interesting feature is that all the common consonants of Marathi are found in all the three positions, but in Sinhala the consonants /t̪/, /d̪/, /d̪/, /g/, /h/ and /r/ do not occur in the final position occurring only in initial and medial positions. Other common consonants of Sinhala have similar distribution as in Marathi. In other words, they occur similarly in both languages.

Restricted to the common phonemes extracted from both the languages, the series of *b*, *d̪*, *w* and *y* do not have any language specific clusters in either of the languages. Marathi also fails to show any language specific clusters in the *p*-series, *t*-series, *d*-series or *g*-series, whereas Sinhala shows language specific clusters in all but the *t*-series. Sometimes, Sinhala has more language specific clusters in particular series and the total numbers of language specific clusters are higher in Sinhala (46) than in Marathi (09).

Sinhala and Marathi have medial geminate clusters. However, the number of geminate clusters in Marathi (21) is higher than in Sinhala (17). Marathi geminate clusters occur in all except the aspirated consonants, /ṇ/ and /h/. Sinhala, the geminate clusters occur in all consonants except /h/ and /r/. The following Marathi geminate clusters -čč-, -jĵ-, -l!l-, -šš-, and -rr- are absent in Sinhala, whereas all Sinhala geminates are present in Marathi.

A relatively small number of homorganic clusters occur in both the languages. They are -mp-, -mb-, -nt-, and -nd- present in Sinhala. Marathi has two homorganic clusters, and they are: -/s- and -ṇt-.

The most common syllabic structures of both the languages are v, cv, ccv, vc, cvc and ccvc. A point that is worth noting is that some of the Marathi syllabic structures which are absent in Sinhala are vv, cvvc, cccvc and cccvvc. In contrast, the Sinhala syllabic structures which are absent in Marathi are v:, cv:, ccv:, v:c, cv:c and ccv:c.

## **Reference**

- Chinnis, V. 1979. *An Intensive Course in Marathi*, Central Institute of Indian Languages, Mysore.
- Coates, William & De Silva, M. W. S. 1960. *The Segmental Phonemes of Sinhalaese*. University of Ceylon Review 18. 3-4: 163-175.
- Colin P. Masica. 1991. *The Indo-Aryan Languages*, Cambridge University Press, NY.
- Crystal, D. 2003. *A Dictionary of Linguistics and Phonetics*, Blackwell Publishing Ltd.
- De Silva, M. W. 1963. *A Phonemic Statement of the Sinhalese Vowels [a] [a] and [aa]*, University of Ceylon Review 21: 71-75.
- De Silva, M. W. S. 1969 *Sinhalese*, In T. Seboek(Ed.), Current

- Trends in Linguistics V. The Hague, Mouton.
- Dhondge, R.V. and Kashi Wali. 2009. *Marathi*, John Benjamins Publishing company.
- Dhondge, R. V. 1976. *Modality in Marathi*, Indian Linguistics, 37.2: 91-101.
- Dhondge, R. V. 1987. *Learn Marathi: A Course in Marathi*, Deccan College, Pune.
- Dileep Chandralal. 2010. *Sinhala*, John Benjamin's Publishing, Amsterdam, the Netherlands.
- Disanayake. J. B. 1991. *The Structure of Spoken Sinhala: 1: Sound and Their Patterns*, Maharagama, Sri Lanka: National Institute of Education.
- Fairbanks, Gordon W., Gair, James W. & De Silva, M. W. S. 1968. *Colloquial Sinhalese (Sinhala) book 1 and 2*, NY: Cornell University South Asian Program.
- Feinstein, Mark. 1979. *Prenasalized Stops and Syllable Structure*, Linguistics Inquiry 10.2: 245-278
- Gair, James W. & Paolillo, John C. 1997. *Sinhala* (Languages of the World/Materials 34), Munchen: Lincom.
- Gair, James W. 1998. *Studies in South Asian Linguistics: Sinhala and Other South Asian Languages*, New York Oxford: Oxford University Press.
- Gair, James W. Karunatilake, W. S. & Paolillo, John C. 1987. *Reading in Colloquial Sinhala*, Ithaca NY: Cornell University South Asia Program.
- Geiger, Wilhelm. 1937. *The linguistics Character of Sinhalese*, In JRAS, Ceylon Branch 34, 90:16-43.
- Geiger, Wilhelm. 1938. *A grammar of the Sinhalese Language*, Royal Asiatic Society, Sri Lanka
- George Cardona & Dhanesh Jain. (Ed). 2003. *The indo-Aryan Languages*, Published by Routledge, London.
- Gunasekar, M. A. 1891. *A Comprehensive Grammar of the Sinhalese Language*, Government Press, Colombo.
- Jha, A. 1966. *An Outline of Marathi Phonetics*, Deccan College

Pune.

- John, A. Goldsmith, (Ed.). 1999. *Phonological Theory*, Blackwell Publisher Inc. USA.
- Junghare, I. 1969. *A Generative Approach to Marathi tadbhava Phonology*, Bulletin of Deccan College Research Institute.
- Karunatilake W.S. 2003. *Sinhala Bhasha:we Vya:karanayā*, M. D. Gunasena Publication Limited, Colombo.
- Karunatillake, W. S. 1987b. *Some Observations on the Phonetics of the Word in Sinhala*, Manuscript, University of Kelaniya, Sri Lanka.
- Karunatillake, W. S. 2001. *Historical Phonology of Sinhala*, S. Godage and Brothers, Colombo, Sri Lanka.
- Kelkar, A. R. 1958. *The Phonology and Morphology of Marathi*, Ph. D. Dissertation, Ithaca: Cornell University.
- Less, R. 1993. *Phonology*, Cambridge University Press. London.
- Michael Ashby & John Maidment. 2008. *Introducing Phonetics Science*, Cambridge University Press.
- Mike, Devenport & Hannahs, S. J. 2011. *Introducing Phonetics and Phonology*, Micro Print, Chennai, India.
- Pandharipande. R. 1997. *Marathi*, Routledge Publication.
- Rajapaksha, R. M. W. 1994 *The Consonant Sounds in Sinhala*, Sambhawya, Kelaniya, Sri Lanka.
- Rajapaksha, R. M. W. 1995. *The Vowel Sounds in Sinhala*, Abhaya Press, Kelaniya, Sri Lanka.
- Wali, Kashi. 2005. *Marathi*, Lin-Com Europa, Muenchen.
- Wali, Kashi. 2006. *Marathi: A Study of Comparative South Asian Languages*, Indian Institute of Language Studies, Delhi.