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## Syllable Structure of Pakistani English in Phonological Theory

### Abstract

*This article describes the syllable of Pakistani English (PE). It compares the syllable of PE with British English, in the light of concepts of syllabic (Chomsky and Halle, 1968), syllabification, template, syllable pattern, model of syllable structure, phonotactics and syllable weight. In the end, the following differences in syllabic phonology of PE and British English are summarized: In phonotactic constraints, one difference is found that is in the syllable of PE cluster of three consonants i.e. /s/, /p or t or k/, /l or r/ is allowed only in monosyllabic words, whereas word internally this cluster is not permissible. So, [ek.sk|IYd] becomes [eks.k|IYd] in PE; the weight of the syllable in PE is not only based on the quality of vowel but also the quality of consonant; in PE every syllable must contain vowel as a nucleus.*

**Key Words:** Pakistani English, Syllable Structure, Syllabification, Phonotactics, Syllable Weight, Syllabic

### Introduction

In different levels of Phonological analysis, a syllable is one of the important levels which is larger than a segment (commonly) and very basic to discuss the prosody of any language. Syllabic phonology discusses various phonological procedures at the level of the syllable. This study presents different theories about the structure of syllable of PE and its representation and further discusses other relevant concepts about the syllable such as syllabification, phonotactics and syllable weight. It further highlights the differences in syllabic phonology of PE and British English. The data of 2000 English words are taken from English news of Pakistan Television PTV to present phonological theory analysis of syllable structure of PE. In the next section, the literature review of different syllable theories along with the analysis of syllabic phonology of PE is presented.

### Literature Review and Analysis of Syllabic Phonology of PE

There are different theories presented by phonologists about the syllable structure and its representation; in which they discuss its number of constituents, the obligatory part of a syllable, representation of syllable structure, and its boundary. In the perspective of [Jones \(1956\)](#), a syllable is a peak of prominence. He does not pinpoint its boundaries. For example, the word ‘investor’ in PE has three syllables as there are three peaks, i.e. vowels in it; but there are no limitations about the boundaries of these three syllables. This is a very old approach in which syllable is not a popular concept.

Similarly, Chomsky and Halle (1968) also do not give much explanation about syllable and its structure. They only name ‘syllabic’ as a feature of the segment as all vowels are mentioned as [+syllabic] and consonants are commonly considered as [-syllabic]. Even ‘stress’ and its rules are discussed by taking a word as a combination of segments to discuss all phonological processes. So, the notion of a syllable is completely ignored in Sound Patterns of English SPE (1968). Whereas in

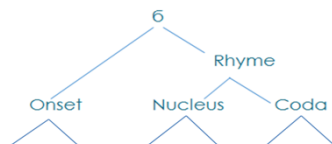
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subsequent work of [McCarthy \(1979\)](#); [Selkirk \(1980, 1982\)](#); [Clements and Keyser \(1983\)](#); [Hogg and McCully \(1987\)](#) syllable is given much importance and is discussed comprehensively.

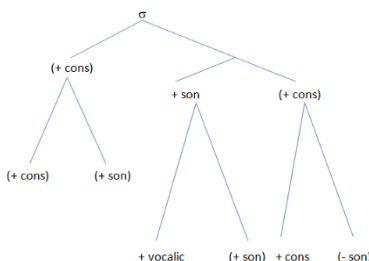
[Selkirk \(1982\)](#) discussed the syllable structure which is the most important element in the hierarchy of prosodic structure. According to her, the internal structure of the syllable has two parts: onset (the initial consonant cluster) and rhyme (the rest). Then rhyme is further divided into two parts: the peak (syllabic nucleus) and the coda (the final consonant cluster). As all English syllables are not so complex that they must contain consonant clusters, so there is also the possibility of simple syllables; such as [pen] which contains one consonant in the onset position, one vowel as a peak and one consonant as a coda. The representation of the internal structure of the English syllable suggested by Selkirk is given below in Figure 1.



**Figure 1.** The internal structure of English Syllable

In this figure, each part of the syllable contains two segments and the sequence of segments is CCVVCC. About this sequence of consonants at onset and coda position, [Selkirk \(1984, p.116\)](#) establishes a principle ‘Sonority Sequencing Generalization’ or ‘SSG’, in which she states; ‘in any syllable, there is a segment constituting a sonority peak that is preceded and/or followed by a sequence of segments with progressively decreasing sonority values.’

She expresses this construction of the English syllable by a template given in Figure 2 below (Selkirk, 1980, p. 569).



**Figure 2.** English Syllable Template

In the above figure, Selkirk specifies the gross features of the segments, which can occur in different parts of the English syllable. According to her, the middle position of the syllable is fixed for the sonorant (+ son) segment along with consonants (+con) at both sides. In onset position consonant adjacent to nucleus and segment on the right side of vowel should be sonorant (+ son). In coda position, consonant at the right edge should not be sonorant (- son). This template of English syllable allows consonants in a cluster in the same sequence which she discusses in the SSG principle.

To apply the SSG principle on the sequence of the segments of PE syllable, it is important to know the sonority values (SV) of different segments. In Table 1 sonority scale of English, sounds are given, in which SV is taken as suggested by [Hogg and McCully \(1987, p. 33\)](#)

**Table 1.** Sonority scale of English Sounds

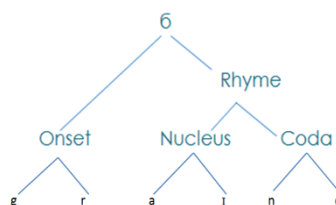
Sounds	Sonority Values	Examples
Low vowels	10	/ə, a/
Mid vowels	9	/ɔ, e/
High vowels and glides	8	/i, u/ & /w, j/
flaps	7	/r/
Laterals	6	/l/
nasals	5	/n, m/
Voiced fricatives	4	/v, z/
Voiceless fricatives	3	/f, s/
Voiced plosives	2	/b, g/
Voiceless plosives	1	/p, k/

In the above table the hierarchy of sonority values  $10 > 1$  is like this:

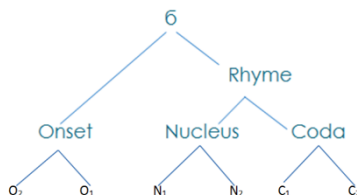
Low vowels > Mid vowels > High vowels and glides > Flaps > Laterals > Nasals > Voiced fricatives > Voiceless fricatives > Voiced plosives > Voiceless plosives

In which, highest SV is 10 starting from Low vowels it decreases gradually and the lowest SV is of Voiceless plosives, i.e. 1. Now, several syllables in PE words are found by assigning a value for sonority according to the above-given scale (Table 1). For word 'detail' [dɪteɪl] SV are: 2-8-1-9-6; here two sonority peaks are found with high SV of 8 and 9 respectively; and if SSG is applied on the internal syllable structure of this word, it can be seen that SV is progressively decreasing on both sides of the peaks. Thus SSG plays a vital role in determining the number of syllables in one word, but it does not address the issue of syllabification in the word like 'detail'. According to SSG there are two possibilities of the division of these two syllables: (1) [dɪ.teɪl] 2-8 & 1-9-6 (2) [dɪ.tɛɪl] 2-8-1 & 9-6. As in both cases, SSG is not violated and the SV is in progressively decreasing order. However, in SSG phoneme /s/ behaves differently. As in the word 'sixteen' [sɪks.ti.n] its SV are: 3-8-1-3-2-8-5. In this word, two sonority peaks each of SV 8 are depicting the number of syllables which is two. If syllabification of this word is done, there are two possible ways: (1) [sɪks.ti.n] 3-8-1-3 & 2-8-5 (2) [sɪk.sti.n] 3-8-1 & 3-2-8-5 but SSG is violated by syllabifying this word in either way.

[Hogg and McCully \(1987\)](#) also discuss the internal structure of English syllables based on SV. They give the idea of 'template' which is the normal maximal structure for an English stressed syllable. It is represented in Figure 3 for the word 'grind'.

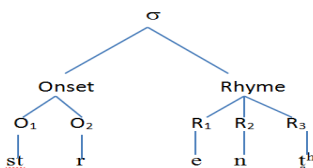
**Figure 3.** The syllable structure of the word 'grind'

In this monosyllable word, there is a sequence of six segments, i.e. CCVVCC. In this sequence, the first two CC are the constituents of onset in the hierarchy and VV are of Nucleus, whereas the last two CC belongs to the coda. Nucleus and coda together make the rhyme part in the hierarchy. To make the position of these segments clear in the syllable, they are numbered outward from the nucleus (N) and shown in Figure 4.

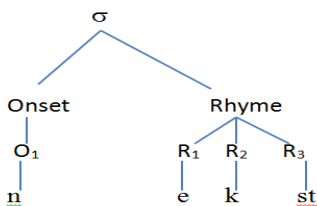


**Figure 4.** Syllable Structure Template

To distinguish consonant clusters in onset and coda position they are given names O for onset and C for coda in the above figure. The segments are further differentiated by putting numbers. As discussed earlier, /s/ is also problematic in this syllable template because it gives no place to /s/ which is a third segment in the onset of the syllable as in words ‘spring’ or ‘stream’ or ‘scream’ but only accommodate syllable with two consonants in the onset position. Similarly, in the above-given template, there is no place for the third segment /s/ in the coda position as in the word ‘glimpse’. So, onset position O<sub>1</sub> is not given rather it is attached with O<sub>2</sub>, which infers that in the template of English syllable suggested in this model, two segments can be attached to two nodes O<sub>1</sub> and C<sub>1</sub> whenever /s/ is present as a third segment either on the onset or at coda position. This attachment of [s] with other segments is represented in Figure 5 and 6 of syllable structures of words ‘strength’ [strentʃ] and next [nekst] respectively as pronounced in PE.



**Figure 5.** Syllable Structure of word ‘Strength’



**Figure 6.** Syllable Structure of word ‘next’

For Hogg and McCully (p.43, 1987) the cluster of O<sub>1</sub> and O<sub>2</sub> in English syllable also make a template. So, the following formal statements are made about the ‘onset template conditions’:

- i. O<sub>1</sub> is optionally filled.
- ii. O<sub>2</sub> has filled iff (if and only if) O<sub>1</sub> is filled.
- iii. Sonority value (SV) of O<sub>1</sub> < 8
- iv. SV of O<sub>2</sub> = or > 6 iff O<sub>1</sub> is filled
- v. SV of O<sub>1</sub> = or < 3

Now, these above-given onset template conditions are being applied to different words of PE with different syllable structures. In the monosyllable word, ‘all’ condition (i) is fulfilled, which is without

any segment at the onset position. In another monosyllable word such as 'blink,' there are two segments on onset position but in word 'ball' only [b] as O<sub>i</sub> is placed, it can't be O<sub>i</sub> to fulfill condition (ii). Condition (iii), which says that SV of O<sub>i</sub> can be equal to or less than 8, is also fulfilled in PE; as in monosyllable words: Kin, bin, fin, van, man, leg, rim and wig; in these words SV of O<sub>i</sub> is -8 respectively.

According to condition (iv) which is about the words containing a cluster of two consonants in the onset position, SV of O<sub>i</sub> should be minimum 6 or more and SV of O<sub>i</sub> (condition v) should be equal to or less than SV 3. The other two conditions (iv, v) are fulfilled in the following monosyllable words:

'play', in which [p] is O<sub>i</sub> with SV 1 and [l] is O<sub>i</sub> with SV 6.

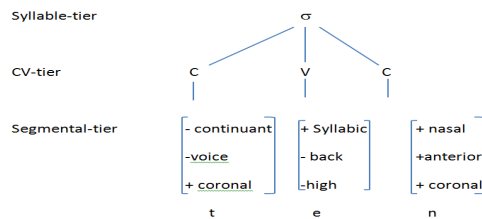
'ground', in which [g] is O<sub>i</sub> with SV 2 and [r] is O<sub>i</sub> with SV 7.

'fraud', in which [f] is O<sub>i</sub> with SV 3 and [r] is O<sub>i</sub> with SV 7.

'ground', in which [g] is O<sub>i</sub> with SV 2 and [r] is O<sub>i</sub> with SV 7.

Katamba (1989) discusses CV-phonology model of syllable structure with its three tasks proposed by Clements and Keysler (1983); which are:

- I. It tells universal principles to govern the syllable structure. According to its syllable structure has three-tiers. On the top is syllable node 'σ'; below it is a CV tier where C is consonantal and V is vowel segments; on the bottom is a segmental tier with features matrices. This three-Tiered structure of PE syllable 'ten' is shown in Figure 7.



**Figure 7.** Three-tier Syllable Structure of 'Ten'

- II. This model tells us the typology of Syllable structure which defines the range within which the syllable structure of one language differs from another language. CV type syllable is considered as a core syllable which occurs in all languages without exception. All other types of syllables are taken as a modification of this 'prototypical CV syllable'. So, they suggest the following four canonical syllable types which are present in PE also.

Type 1: CV as in 'the'

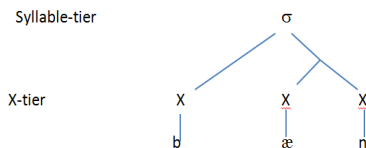
Type 2: CV, V as in 'the', 'a'

Type 3: CV, CVC as in 'the', 'pen'

Type 4: CV, V, CVC, VC as in 'the', 'a', 'ten', 'up'

- III. It also explains language-specific rules to govern the syllable structure. It covers the languages which contain only 'C' or 'V' as a complete syllable. But they have not discussed the combinations like CCVCCC as in English syllable 'glimpse'.

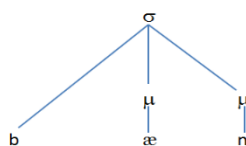
[Brockhaus \(1995\)](#) also discusses syllable structure as 'CV tier approach', 'the X theory approach' and 'Moraic theory' in 'Government Phonology'. As 'CV theory' is already discussed above, so 'the X theory approach' and 'Moraic theory' need to be elaborated. In the X theory, there are different tiers to represent the syllable structure, but one difference is that 'CV tier' is replaced by 'X tier' as in Figure 8 below.



**Figure 8.** Syllable structure of 'ban' in 'X tier'

In the above figure, segments are represented as a sequence of 'Xs' instead of C and V and the right branch of syllable-tier is further branched into two constituents; whereas in 'CV theory' Syllable-tier is branched into three (Figure 7 above). So, X theory provides further bifurcation of rhyme node in the structure of syllable also.

In 'Moraic theory' (originally proposed by [Tranel 1991](#)) there is a skeleton representing the timing units of segments. So, the CV-tier or X-tier is replaced with the weight units, i.e. moras. Hayes (1989) further provides the comparison of CV theory, X theory, and Moraic theory. He says Moraic theory is 'not segmental' unlike other two theories which are 'segmental'. Moreover, for the formal description of 'prosodic frame' it is also suitable while the other two theories are not because they just represent segments as 'CV or Xs' but provide no information about their role in the weight of syllable or prosodic structure of language. In the version of the moraic theory, the syllable structure of 'ban' is represented in Figure 9.



**Figure 9.** Syllable Structure Of 'Ban' In Moraic Theory

In the above figure,  $\mu$  stands for 'mora' with which the segments 'rhyme' that contribute to the weight of the syllable are linked, whereas onset plays no role in weight, so it is directly joined to syllable node. This notion of mora is important because it provides a distinction between 'light' and 'heavy' syllable. As the weight of the syllable does not depend on the number of segments in the syllable but the number of moras in it.

one mora = light syllable

two moras= heavy syllable

three moras= super heavy syllable

[Carr \(1993\)](#) discusses syllable structure in government phonology (GvP) theory which presents a set of 'principles' for all phonological representations of the languages. These 'principles' are universal and shared by all languages of the world. Moreover, 'parameters' are introduced to tell how one language varies from any other language. GvP also gives many principles which concern the place of segments in syllabic and metrical structure. The theory presents governing relations of segments in the syllable at the following two levels:

(i) **Constituent Government** is the relation between three syllabic constituents: onset, rhyme, and nucleus (coda is rhymed complement). The government operates all constituents from left to right. Thus, if onset or nucleus is branching, it is the leftmost skeletal position that governs the rightmost; and within branching rhyme, the coda is governed by the nucleus.

(ii) **Interconstituent Government** is the relation between adjoining syllables, i.e. between the head of onset and a preceding coda, and between a nucleus and a preceding onset head.

[Clark and Yallop \(1995\)](#) focus more on the nature of the segment as the syllabic peak in the syllable. A syllable commonly contains a vocalic peak but in some languages other sounds, consonants can also make a nucleus of a syllable. Then they give examples of English words such as [s ɸ dn ̄] and [mEdl ̄] in which nasal [n] and lateral [l] are syllabic by making syllabic peak. On the other hand, the only vowel makes a syllabic peak of a syllable in PE no other segment like consonant is allowed in the nucleus position. For example in PE, sudden is pronounced as [s ɸ .d↔n] and meddle as [mE.d↔l].

In the typological study of syllable structure, phonologists try to find out what is ‘unmarked’, that is common, frequent and general in languages and what is ‘marked’, that is uncommon, specific and less frequent. [Maddieson \(2005\)](#) discusses the ‘canonical syllable pattern’ which consists of a string of consonants and vowels. One syllable structure that is the norm and is present in every language is ‘CV’. Languages in this study are classified into three groups according to the complexity of the syllable structure: (1) simple syllable structure languages contain no consonant clusters; (2) moderately complex syllable structure languages contain consonant cluster of two consonants at maximum on either side of a vowel; (3) complex syllable structure languages have a cluster of two or more consonants at either side of the vowel. English falls in the third type which has canonical syllable pattern as:

(C) (C) (C) V (C) (C) (C) (C) as in word ‘strengths’ when pronounced as [strENkTs]. In this pattern, ‘C’ is put in parenthesis because these are optional parts of the English syllable as English syllable can consist of just a vowel as an article ‘a’. If we look at the canonical syllable pattern of PE it is also complex but it has a cluster of maximum three consonants on the right edge of the word as (C) (C) (C) V (C) (C) as in word ‘strengths’ which is pronounced as [strEnt5s] in PE.

Syllable structure is also discussed in the form of ‘parametric variation in syllable type’ Blevins (1995) presents the following five binary-valued parameters to discuss various syllable types in different languages including English:

- I. Complex Nucleus: These languages allow ‘VV’ as a nucleus of a single syllable which is called tautosyllabic sequence as in word ‘e.qua.tion’ the second syllable is tautosyllabic.
- II. Obligatory Onset: It determines whether a consonant in onset position is compulsory or not. Although many syllables contain onset it is not compulsory in PE. For example, in the word ‘un.der.stand’ the first syllable is without onset.
- III. Complex Onset: It tells about the occurrence of consonants cluster on the onset position. In ‘pre.pare’ the first syllable contains complex onset with a cluster of two consonants in onset position.
- IV. Coda: It is allowed in the language which has closed- syllable types. As in English, many syllables are closed with the consonant in coda position such as in ‘com.bine’ both the syllables are close.
- V. Complex Coda: Some languages also have consonants cluster in the coda position of their syllable. This parameter is dependent on the setting of the ‘coda’ parameter. PE also allows complex coda as in the second syllable of the word ‘per.cent’.

Other than these above given five parameters, which are binary in nature, the sixth parameter is explained which shows exceptional syllable types at the edge of the syllabification domain.

- VI. Edge Effect: It shows the difference in the occurrence of syllable types in the word ‘initial’ and ‘final’ position. The difference of this parameter can be seen below in Table 2 which illustrates the difference of the parametric variation in syllable type of native variety of English and PE.

**Table 2.** Parametric variation in syllable type of English and PE

	<b>Complex Nucleus</b>	<b>Obligatory Onset</b>	<b>Complex Onset</b>	<b>Coda</b>	<b>Complex Coda</b>	<b>Edge Effect</b>
English	yes	no	yes	yes	yes	Yes/Final
PE	yes	no	yes	yes	yes	Yes/Initial

It is obvious from Table 2 that British English and PE vary in the sixth parameter that covers the exception of syllable type in the word-initial or final position. English word ‘extreme’ is syllabified as [ek.strim] in British English but it is syllabified as [eks.trim] in PE. Although the cluster of three

consonants is possible in the syllable type of PE as in word ‘stream’ or ‘spring’ it is unacceptable when this cluster of three consonants found in word-internally. Similarly, English words with a cluster of two consonants e.g. [bɪ.twiːn] is syllabified as [bɪ.twiːn] in PE, which means a cluster of two consonants is also not allowed word-internally though it is allowed in the initial position in PE as in [twɪn]. So, PE allows a cluster of three/two consonants in the word-initial position only, not word-internally.

### Syllabification

It is the process of dividing a polysyllabic word into several syllables, which is deciding the boundaries of a syllable. Different principles and theories are presented to explain the process of syllabification. For instance, McCarthy (1979) presents the following three parameters of syllabification in the theory of metrical syllabification:

- i. The labeling of the rhyme
- ii. The branching or nonbranching character of the rhyme
- iii. The major category features like [syllabic], [consonantal], and [sonorant]

(McCarthy, 1979, p. 456)

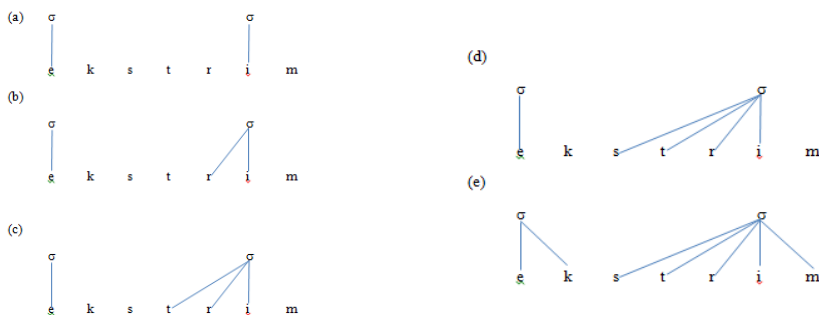
In these parameters, more focus is given to the rhyme part of the syllable, which contains a nucleus followed by another vowel or consonant (if branching).

In Poly-syllabic words of English, it is easy to know the number of syllables but deciding the boundaries of the syllable is difficult. This division of syllables is even tough in words which have medieval consonants. For example, in ‘petrol’ there are three possibilities of syllabification of this word: (1) pet.rol, in which medieval two consonants [tr] are divided into both of the syllables. (2) pe.trol, in which [tr] become the onset of second syllable (3) petr.ol, in which [tr] becomes the coda of the first syllable, but in this division, SSG is violated as SV of /t/ is less than SV of /r/; which indicates that this type of syllable is not possible in British English.

Many theories posit a series of syllabification rules to syllabify the sequence of consonants and vowels. Turk (1994) explains three rules of syllabification stated by [Clements and Keyser \(1983, p.38\)](#):

- i. V-elements are pre-linked to syllables.
- ii. C-elements to the left are adjoined one by one as long as the configuration resulting at each step satisfies all relevant syllable structure constraints.
- iii. Subsequently, C-elements to the right are adjoined in the manner described in (ii) above.

For example, the word ‘extreme’ [ekstrim] from PE would be syllabified in Figure 10 below.



**Figure 10.** Syllabification of [ekstrim]

In Figure 10, representation of rule (i) which is about linking vowels with the syllable can be seen in (a); rule (ii) which is about the joining of consonants at the onset position as per allowed number and sequence of consonants [str] can be seen in (b)-(d); and rule (iii) which tells about the joining of consonants at the coda position is shown in (e).



Although [str] is allowed sequence in many monosyllabic words of PE, for example, strict, stream, straight, etc. but this cluster of three consonants is never found word internally as the onset of the second syllable. So, unlike Figure 10 ‘extreme’ in PE is syllabified as [eks.trim] instead of [ek.srtim]. It might be because of the influence of Urdu in which a cluster of three consonants at onset position is not possible ([Hussain 2010](#)).

This myth of division of the intervocalic consonant cluster is discussed in different ways. [Hogg and McCully \(1987\)](#) explain it with the help of three principles. First is the ‘Principle of Maximal Onsets’ which permits the maximum number of consonants in the onset position which are allowed in the template of the syllable. It is similar to the rule (ii) of Clements and Keyser (1983) stated above. As discussed above, in PE this rule is not applicable. The second principle is ‘Principle of Maximal Codas’ which allows a maximum number of consonants at the coda position as are permitted by the syllable template. For example ‘petrol’ can be syllabified as [pet.rol] instead of [pe.trol] according to this principle but it can’t be divided as [petr.ol] because [tr] cluster is not possible in the coda position of English syllable (Phonotactics is discussed in detail in next section).

The third type of division is illustrated in the ‘Principle of Maximal Codas and Maximal Onsets’. According to this principle, intervocalic consonants are joined both to the coda of the first syllable and the onset of the second syllable, but by fulfilling the syllable template conditions. For example, in [petrol] [t] segment will be assigned to the first syllable as coda as well as to the second syllable as an onset. This process of the simultaneous link of one segment with two adjacent syllable is technically called ‘ambisyllabicity’.

According to universal phonological approach, languages with complex syllable structure like English mostly follow the principle of maximal onset. But PE does not follow this principal as discussed above that /ek.stri]m/ becomes /eks.tri]m/ in PE. Similarly, many other words which contain cluster of three consonants in the onset position of second syllable in English such as /ek.spi.rI↔ns/, /ek.skIIm/, /ek.skIYZ/ become [eks.pi.rI↔ns], [eks.kIIm], [eks.kIYZ] in PE. This variety also behaves differently in the syllabification of some words having cluster of two consonants, such as word ‘between’ in PE is syllabified as [bI.twin] instead of [bI.twin] and word ‘escapable’ in PE is [es.ke.pe]↔I] instead of /I.skeI.p↔bl/.

### Phonotactics

In the language such as English, which form complex syllable structures by allowing consonants clusters on the onset and coda position, the sequence of consonants in the cluster is also a very important concept to discuss the boundaries of a syllable. Clark and Yallop (1995, p. 70) define the term ‘distributional statement’ as ‘a statement specifying how segments are distributed within syllables, and syllables within words, etc.’. [Hawkins \(1984\)](#), [Katamba \(1989\)](#), [Hansen \(2006\)](#) also explain syllable as the basic ‘Phonotactic unit’ to tell about language-specific sequences. It is because of the phonotactic rules of English syllable that [tl] sequence is not possible in one syllable. So, all words in English with this sequence divide these two segments into two syllables. For example, the English word ‘little’ is syllabified as /lit.l̩/ in which [l̩] is syllabic and making a separate syllable. In PE this word ‘little’ is also syllabified as a bi-syllabic word but in PE [l̩] is not syllabic as it is pronounced [II. t↔l̩]

According to McMahon (2002, p. 106), English allows two or three consonants at the onset and coda position with following ‘phonotactic constraints’. In a CCC onset, C<sub>1</sub> must be /s/ only. The following phonemes do not form a part of onset clusters in English: /N/, /v/, /Δ/, /ζ/, /Z/. Similarly, /t d T/ plus /l/ also do not make permissible onset clusters. In the case of codas, /h/ does not appear in codas. In coda clusters, nasal and oral stops are only possible if the two stops are of the same place of articulation. So, /lg/ is not an acceptable coda cluster.

In Yule (2010), the sequence of the following maximum three consonants is possible in English syllable: C<sub>3</sub>= [s], C<sub>2</sub>= [t/p/k], C<sub>1</sub>= [l/r/w] as in words splash, stretch, script etc.

These all above discussed phonotactic constraints are also occurring in the consonants cluster of the syllable of PE. But one difference is found that is in the syllable of PE cluster of three consonants

i.e. /s/, /p or t or k/, /l or r/ is allowed only in monosyllabic words such as splash, strict, scrap. Whereas, word internally this cluster of three consonants is not permissible. So, /ek.sk|IYd/ becomes [eks.k|IYd] in PE.

### **Syllable Weight**

The internal structure of the syllable is discussed above and it is seen that syllable can consist of just one segment V as its nucleus, it may contain consonant(s) in its onset, i.e. CV, such syllable without coda is called 'open syllable' and according to Roca and Johnson (1999, p.240) 'CV syllable is legitimately considered the core syllable'. Whereas, those syllables which contain consonant(s) at coda position, i.e.VC, CVC or CVCC are called 'close syllable' (Katamba, 1989; McMahon, 2002). This presence of consonant at coda position not only makes a different type of syllable but also affects the weight of syllable in 'quantity-sensitive languages'.

There are two more subdivisions of syllable type which depend on the structure of rhyme. Branching rhyme of the syllable, i.e. with long vowel or diphthong (VV) or short vowel and coda (VC) make 'heavy syllable' and rhyme with one segment only, i.e. (V) makes 'light syllable'.

According to Goedemans and Hulst (2005), weight-sensitive languages are divided into five different types because of five weight factors:

- i. Long vowel: syllables containing long vowels are considered heavy for stress
- ii. Coda consonants: syllables closed with coda are considered heavy for stress
- iii. Long vowel and coda: Syllables having long vowel or diphthong or closed syllable are taken as heavy for stress
- iv. Prominence: other factors such as full or reduced vowel can form the basis for heavy- light syllable
- v. Lexical: lexical stress or diacritic weight

From the above-mentioned weight factors, factor (iii) is most relevant in PE.

Katamba (1989) categorizes all languages into the following two types in terms of syllable weight: (i) languages having short vowels with or without onset in their light syllable and heavy syllable is made by branching rhyme, i.e. either one long vowel or a short vowel followed by a coda. In literature, it is stated as 'branching rhyme hypothesis' (ii) In this type of languages occurrence of coda does not affect the weight of syllable. So, a syllable with short vowel with or without coda is light; and heavy syllable is made with long vowel or diphthong. According to this categorization, British English falls in the first type. But the syllable weight of PE is a different case and is discussed below.

Goedemans and Hulst (2005) further discuss the cross-linguistic variability of coda weight in different languages. According to them, unlike English, not all types of consonants in coda position need to make syllable heavy; instead, there are languages in which only some consonants such as sonorant at coda position are weightful.

Dobrovolsky and Katamba (1996) used the term 'forcefully' for the allophonic free variation of /p/ sound in the coda position of word /stɒp/ in some English variety. Similarly, it is also noted in PE some consonants at the coda position are pronounced forcefully and this forceful production affects prominence. So, every type of consonant at coda position does not carry weight but only that coda consonant which is pronounced forcefully is weightful in PE.

### **Conspectus**

The study discusses an important supra-segmental feature, syllable, by discussing various phonological approaches to highlight the syllable structure, syllabification, phonotactics, syllable weight of PE. Moreover, it focuses on the differences in the syllabic phonology of British English and PE. Some of the important differences are summarized below:

- In poly-syllabic words of PE cluster of three/two consonants is not allowed word internally. It infers that this variety of English does not follow MOP.

- The weight of the syllable is not only based on the quality of vowel but unlike British English also on the quality of consonant at the coda position, i.e. forceful production of consonant at coda position. So, a heavy syllable is one with a long vowel (V:) or diphthong (VV) or vowel followed by a consonant(s) produced forcefully (VC)
- According to two parameters i.e. 'empty nuclei' and 'branching rhymes' of GvP English licenses both of these parameters; on the other hand, PE admits only 'branching rhymes' but it does not permit 'empty nuclei' which means syllable without vowel as a nucleus. In PE every syllable must contain vowel as a nucleus, none of the sonorant consonants like [l], [m], [n], etc. can be syllabic while they are syllabic in British English.

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