

Lexical Stress and Foot Patterns of Pakistani English

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Abstract

Pakistani English PE, a nativized variety of English, has a different lexical stress and foot pattern to that of any native variety of English. This difference in the varieties often results in comprehension failure or leads to awkward situations. The present study focuses on describing the stress of different syntactic categories of PE to illustrate its foot patterns. The data was collected from the English news broadcasted from Radio Pakistan Islamabad for Pakistani English variety. The results show that PE is significantly different from native English varieties such as British Standard English BSE, in respect to placing primary and secondary level stress on different syllables in a multisyllabic word. For instance, unlike native English varieties, where lexical stress on a penultimate syllable is more common in case of nouns and adjectives, Pakistani English prefers to place the stress on the ultimate syllable irrespective of which syntactic category is chosen. Furthermore, differences are also noticed in foot patterns; as foot pattern of PE is 'iambic' unlike BSE which shows 'trochaic' foot pattern.

1. Introduction

Although Pakistani English (PE) is influenced by both British English BE and American English AmE yet, it does not strictly follow BE or AmE. On the contrary, it is highly affected by the local and regional languages of Pakistan leading to variations at different linguistic levels such as phonology, morphology, syntax, etc. PE is previously described as a non-native variety of English by different researchers. For example, Rahman (1990) discussed PE as sub-varieties spoken by people of four different social strata in Pakistan. According to him, the elite class Pakistani speakers of the English language show fewer differences from native English variety; whereas lower class shows maximum differences at all linguistic levels.

Later, Mahboob & Ahmer (2004) also explained PE as one variety at various linguistic levels but gave less attention to supra-segmental phonological features of PE. Moreover, Afsar & Kamran (2011) compared the consonantal system of PE with that of BSE and highlighted inventorial, incidental, realizational and distributional differences of these varieties.

PE is a kind of non-native variety of English which is spoken by speakers of other languages such as Urdu, Punjabi, Sindhi, Pashtu, Balouchi, Saraiki, etc. All of these and most of the other languages spoken in Pakistan are drastically different in terms of prosody and rhythmic patterns from native varieties of English. Regional languages spoken in Pakistan are syllable-timed; i.e. languages in which syllables tend to appear at an equal period time; as Tickoo (2003) claimed that most of the South-Asian languages are syllable-timed. Hussain (2010) also confirmed that Urdu (national language of Pakistan) is a syllable-timed language with unbounded right-headed foot pattern. Whereas, BE is stress-timed language i.e. language in which stresses often take place at an almost equal interval of time (Ladefoged, 2001). About its foot patterns, Selkirk (1980) described it as a language with bounded left-headed (trochaic) foot pattern. This difference between Urdu and British English plays a major role in the study of PE which is nativized variety, i.e. influenced by native language(s).

So, regardless of first language (L1) of Pakistani speakers of English, PE is spoken as a nativized variety with different rhythmic patterns from any other native variety of English such as British Standard English or American General English.

These differences between native English and PE cause hurdles in oral communication among their speakers. As Jenkins (2000) also verified that nuclear stress is one of the three principal features of intelligible pronunciation. Moreover, Tickoo (2003) emphasized that for being intelligible non-native speakers of English should produce correct rhythm and stress.

Pakistani learners of English also score less in speaking and listening modules of the International English Language Testing System IELTS and Test of English as a

Foreign Language TOEFL. There seems a need for highlighting these kinds of differences to be focused for the teaching of English language, so that the learners of English in Pakistan can enhance their pronunciation skills effectively.

For this purpose, this study describes the stress and foot patterns of PE; so that these supra-segmental features of PE, which vary from native English varieties, should be highlighted.

2. Literature Review

This section discusses the following fundamental concepts which are important to understand the supra-segmental features of any variety of language: prosody, stress and stress patterns; foot and foot patterns.

Different supra-segmental features including stress, syllable, and foot together are referred to as prosody. Sometimes it is known as a study of rhythm. For Pennington (1997) prosody refers to “transegmental or supra-segmental aspects of speech... to the patterns in individual words of stress, of pitch and of tone, as well as the rhythmic and intonation patterns of longer utterances” (p. 128). Intonation is also taken as a part of prosody when a prosodic study goes to the level of sentence. O’Connor states about intonation that “the words do not change their meaning but the tune we use adds something to the words, and what it adds is the speaker’s feelings at that moment; this way of using tunes is called intonation.” (1980, p.108)

Fromkin et al (2007) have their own perspective about it, for them, the term ‘prosodic’ comes from poetry and is referred to the metrical structure of a verse. The prosodic hierarchy based on different supra-segmental features is illustrated in Figure 1 below.

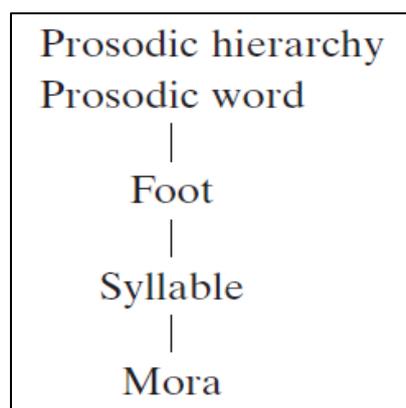


Figure 1 : Hierarchy of Prosody

In Figure 1, ‘Mora’ is the minimal unit of prosodic hierarchy. Zec (1995) discusses mora as a weight unit of a syllable. Syllable weight is one of the major areas of research in syllable phonology. For encoding syllable weight, the moraic outlook of the syllable is a generally accepted approach. Syllables are categorized as heavy or light on the basis of counting the number of morae or moras (plural of mora) in it. Within this approach, it is generally agreed that a short vowel constitutes a single mora while a long vowel is bimoraic (Lass, 1984). With respect to consonants at a ‘coda position’, however, there is a controversy over whether the difference between a single consonant and a geminate (long) consonant is the one that affects syllable weight or not. In this regard, Hayes (1988) postulates the moraic theory of geminates which says that a geminate consonant is moraic but a single consonant is not.

Consonantal phonemes as a nucleus of a syllable can also play role in the weight of a syllable. As one important function of some special consonantal phonemes such as /l, n, r/ in a syllable is that they can be syllabic because of their high sonority values. However, a syllable having these syllabic consonants at a nucleus instead of vowels is called as a ‘weak syllable’. Hence, such weak syllables are always unstressed in English. In a narrow phonetic transcription, a syllabic consonant is indicated by a small vertical line [] under the relevant symbol. The particular environments for each of these consonants in which they occur as syllabic consonants are given below.

In English, the syllabic [l] is the most frequent of the other syllabic consonants. It is most noticeable that [l] behaves syllabic when it comes at the end of a word, and is preceded by a consonant, as in table [teɪ.bəl], double [dʌ.bəl], and bottle [bɒ.təl]. On the other hand, [l] is non-syllabic when it is in the onset position of a syllable e.g. please [pli:z] and followed by a vowel in the coda position, e.g. normal [nɔː.məl].

The syllabic [n] also occurs in a coda position of a syllable when it is preceded by a plosive or fricative but not in the onset position of a syllable, as in button [bʌ.t.ən]. The syllabic [r] is very common but in many rhotic accents of English only. On the other hand, it is rare in non-rhotic accents, where this phoneme is usually completely missing (except before a vowel).

About these two classes of syllable nuclei: vowels and syllabic consonant; Zec (1995) states that all English syllable nuclei are not on an equal footing. He distinguishes in the distribution of those syllables whose nuclei are based on /l/ or a nasal, and those whose nuclei are either a vowel or /r/. The former class of syllables, those with light nuclei, has a severely restricted distribution, which is stated below:

“Distribution of syllables with /l/ or a nasal in the nucleus (L = l or nasal)

a. CL and CLC syllables are never stressed. (C is any consonant other than L)

b. There are no monosyllabic CLC words or disyllabic CLCL words”. (2003, p. 127)

He gives the following weight hierarchy, with CL and CLC syllables figuring as the lightest English syllables.

CVC, CVV, CV, CR >> CL, CLC

R stands for /r/ as a nucleus.

After mora comes, ‘syllable’ in the above given prosodic hierarchy, in the substance of the syllable structure, there are segments, the ingredients of the syllable. According to Hayes (2009), the consonants before a vowel, i.e. onset in a syllable is often obligatory in syllable structure of many languages and is often articulated more forcefully; whereas coda, that is consonant(s) after a vowel in a syllable are optional or forbidden in many languages. There is a strong relationship between these segments’ quality and syllable structure. So, by focusing on the segmental properties of syllables, it can be understood that what kind of role, each type of segment plays in determining properties of the shape of the syllable. Other than shaping the syllable structure, quality of segments also plays a vital role in phonotactic constraints, i.e. possible clusters at the syllable edges. Minimum unit or segment at the level of phonetics and phonology is ‘phoneme’. A phoneme is an abstract sound segment and the basis of speech (Roach, 2009). Moreover, the length of a segment also affects syllabification patterns. So, one of the consequences of segmental length is ambisyllabicity, i.e. “The association of a consonant with two syllables at the same time” (Giegerich, 1992, p.182).

Given that all above, a presence of consonants also plays a role in the structural categorization of a syllable. One type of syllable is called ‘closed syllable’, i.e. which ends on a consonant. It is sometimes also termed as a checked syllable, and the vowel forming the nucleus is then a checked vowel. The second type is the one without consonant at the end called ‘open syllable’ (Katamba, 1989; McMahon, 2000).

Nesset (2008, p.51) makes the following three-way distinction in syllables while discussing the stress phenomenon in the Russian language:

1. Syllables with stress and mora (σ_μ)
2. Syllables with a mora, but no stress (σ_μ)
3. Syllables with neither stress nor mora (σ)

Cho and King (2003, p.187) present the notion of a ‘semisyllable’ which is a syllable ‘that contains no mora’. They also tell the following six properties of semisyllables:

1. Without nucleus
2. Without coda

3. Without stress/accent/tone
4. In prosody, it is invisible
5. Onset clusters are well-formed
6. It is restricted to only peripheral positions of a morpheme

After syllable, there comes foot in the prosodic hierarchy. It is an organizing structure for joining syllables. Davenport & Hannahs (1998) characterizes foot as: 'A stressed syllable combined with any associated unstressed syllables constitutes a foot.' A foot consists of only one stressed syllable with one or more unstressed syllable. This compulsory stressed syllable of a foot is termed as its 'head'.

Stress is a kind of force which is put on any syllable in a word. According to Ball and Rahilly (1999), stress is syllable prominence, which is obtained from three phonetic factors, i.e. loudness, enhanced length, high pitch movement. Stress levels can be differentiated in terms of the difference of prominence. As Gordon (2004) discussed various levels of stress; in which primary stress means maximum prominence in a syllable; and secondary level stress contains less prominence as compared to the primary level but it is more prominent than any unstressed syllable.

Stress is usually studied in the domain of words. Polysyllabic words, i.e. words containing more than one syllable, contain unstressed and stressed syllables. This combination of stressed and unstressed syllable constitutes different stress patterns. Chomsky and Halle (1968); and Yavas (2006) discuss following three different stress patterns: (1) Ultimate, i.e. stressed syllable is first from the right e.g. re. 'port (verb). (2) penultimate, i.e. stressed syllable is second from the right e.g. 're. port (noun). (3) antepenultimate, i.e. stressed syllable is third from the right e.g. ca. pa. 'bil.i.ty (noun).

These stress patterns formulate various foot patterns in languages. The foot is classified according to the number of occurring syllables in it and presence of stressed syllable on an edge, i.e. left or right. Based on these characteristics, following five types of the foot are found:

- (i) Degenerate syllable occurs as a foot with one stressed syllable only, without any un-stressed syllable (*)
- (ii) Right-headed bounded or iambic foot consists of two syllables; one stressed syllable and one unstressed syllable; with stressed syllable on its right edge. (.*)
- (iii) Left headed bounded or trochaic: It also contains two syllables with head on the left edge. (*.)

- (iv) The unbounded left headed foot has two or more unstressed syllables with a stressed syllable (head of foot) on the left side of the unstressed syllables. (* . . .)
- (v) Unbounded right headed foot also consists of two or more unstressed syllables with head in its right side. (. . . *)

However, in any foot pattern, an extrametrical syllable is the unstressed syllable which does not become the part of any foot <.>. An extrametrical syllable always occurs on the left or right edge(s) of the word (Lieberman and Prince, 1977; and Hayes, 1982). Moreover, in both foot patterns (bounded or unbounded) degenerate syllable or extrametrical syllable can occur.

Languages vary in their foot patterns. Some make a bounded foot, left or right-headed while another form unbounded foot pattern with a difference of headedness. However, the degenerate foot can occur in a language of any foot pattern (Dobrovolski & Katamba, 1996; Davenport & Hannahs, 1998; Ewen & Hulst, 2001). It is interesting about Guahibo language that its default stress pattern is trochaic but it is also iambic as a lexically marked pattern (Kondo, 2001)

Many languages show a phonological process of lengthening in stressed open syllables. When this process happens in iambic languages, it is known as ‘iambic lengthening’. Hayes (1995) argues that the impetus behind this process is to create a well-formed, canonical (LH) iambic foot in agreement with the Iambic/Trochaic Law (Hayes 1995, p.80) given below:

- a. Elements contrasting in intensity naturally form groupings with initial prominence.
- b. Elements contrasting in duration naturally form groupings with final prominence.

While discussing the foot patterns of English, Akmajian et al. (2010) distinguishes three different types of foot on the basis of number of foot. A ‘unary foot’ is consisted of one syllable, a binary has two syllables and ternary contains three syllables.

Backley (2011) discusses the representation of phonological categories by elements in element theory; he states the double association of elements in these words: “they are associated with physical patterns in the acoustic signal and also with segmental representation in the mental grammar” (p.5). He further tells the relationship between elements and different units of prosodic structure. Weakening processes also function within prosodic domains, such as a syllable, foot or word. It is clear in the foot domain that segments are weakened in weak syllables. For example, [p^heti] is pronounced [p^heri] in some English varieties, in which [t] is weakened as [p] because it exists in a weak syllable of foot and [p] is aspirated being the onset of the stressed syllable.

Ortiz-Lira (1998) discusses a difference in the stress patterns of Received Pronunciation (RP) and American English (Am E) particularly of the words which are of French origin. He explains the tendency of Am E speakers to put stress on the last syllable, i.e. ultimate of di-syllable words following a French pronunciation; whereas RP speakers mostly produce penultimate stress patterns in same words such as *ballet*, *brochure*, *café*, *précis*, *vaccine*, etc. Similarly, these two native varieties also vary in stress patterns of tri-syllable and tetra-syllable words; a tri-syllable word like *attaché* is pronounced with an ultimate stress pattern in Am E, if is penultimate in RP. A tetra-syllable word like ‘advertisement’ is produced with a penultimate stress in Am E but antepenultimate in RP.

It is not only the quality of a vowel in a syllable, which is weak. There can be other factors which affect stress in a word like, syllables containing reduced vowels such as /ə/, /ɪ/; or syllabic consonants which are always unstressed in English; but there can be other factors which affect stress in a word. Skandera and Burleigh (2005) discuss three major factors that influence word stress patterns of English. These are word origin, word class, and the presence of suffixes, but they influence stress only in non-compound words. Stress in words of Germanic (language family) origin is influenced by the word origin (mainly from Old English and Old Norse, the language of the early Scandinavians). These kinds of words tend to have a stress on the first syllable as in *answer* and *brotherhood*, while words of Romance (language family) origin (mainly from French and Latin) mostly contain stress on later syllables, as in *respond* and *fraternity*.

Another factor which is most frequently discussed in phonology is ‘Word class’ which influences stress in that nouns and adjectives tend to have first-syllable stress, as in *present* / 'pre.znt / and *record* / 're.kəd/, while verbs have a tendency to have second-syllable stress, as *present* /pre. 'zent/ and *record* /re. 'ko:d/. A third factor is the presence of suffixes, which is also important. There are a lot of phonologists, such as (Kreidler, 1997) who tell us about the different types of suffixes in English words that can influence stress patterns. In these types, some suffixes are of a kind that usually attract stress, whereas other suffixes commonly specify which of the syllables of a word carries stress, and still other suffixes usually cause a shift in stress. For example, words containing the suffixes *-ee*, *-eer*, *-ese*, *-esque*, and *-ette* usually carry the (primary) stress regardless of which syllable was stressed before the addition of a suffix, as in *mountaineer* derived from *mountain* and *kitchenette* derived from the *kitchen*. Syllables containing the suffix *-ate* also usually carry the stress (but in American English, they usually don't) when they occur in disyllabic verbs, as in *dictate* /dɪk 'teɪt/ and *frustrate* /frʌs 'treɪt/ (in American English /'dɪk.teɪt/ and /'frʌs.treɪt/).

In trisyllabic verbs, the (primary) stress mostly occurs on the first syllable, as in *dominate* / 'domɪneɪt/ and *fluctuate* / 'flʌktʃueɪt/ and in four-syllable verbs, it is the second syllable which carries the (primary) stress, as in *deliberate* /dɪ 'lɪbəreɪt/ and

facilitate /fə 'silitert/. And some suffixes are known as 'stress- shifting' such as *-ial*, *-(i)an*, *-ic*, and *-it*, they usually shift the stress from the syllable that carries the stress before the suffix is added to the syllable immediately preceding the suffix, as in *tutorial* /tju:'tɔriəl /, derived from *tutor* / 'tju:ta /, and *climatic* /klai'mætik /, derived from *climate* / 'klaimət/.

There are also suffixes, however, which do *not* usually affect stress position at all. These are named as stress-neutral suffixes. Among such suffixes are *-ish*, *-ite*, *-less*, *-ment*, *-ness*, *-ous*, and *-y*. They usually retain the stress on the same syllable that carries the stress before the suffix is attached, as in *involvement* / in'vɒlvmənt /, derived from *involve* /in'vɒlv/, and *dangerous* derived from *danger*.

As mentioned above that *present* /prezənt/ and *record* /reko:d/, as the noun and the verb, are words with an identical spelling, which are distinguished most noticeably by their stress patterns, i.e. they have contrastive stress in English.

In the stress patterns of English, strong forms can appear in both prominent and non-prominent positions, i.e. they can be either stressed or unstressed; but weak forms can only be present in non-prominent positions, i.e. they are always unstressed. The stress behaviour of grammatical words or functional words is also generally predictable. As they usually do not convey most of the message of an utterance, so they are often in the non-prominent positions and are, therefore mostly unstressed.

Zamma (2003) summarizes that English has the following five major stress patterns: (i) when the last syllable is extrametrical; the extra syllable at the edge of any word which is never the part of any foot (Lieberman and Prince 1977); and stress falls on the antepenult if the penult is light as in ('natu)<ral>, ('humo)<rous>, ('domi)<nant>, ('addi)<tive> (ii) when stress falls on the light penult with the non-extrametrical syllable as in alco('holi)<c>, a('tomi)<c>, ti('tani)<c>, sym('phni)<c>, however, in these words there are extrametrical consonants (iii) non-retracting patterns in which stress falls on the last syllable, journalése, ingénéer, volontéer, picturésque, cigarette, recognìze, (iv) strongly-retracting are those in which stress falls on the antepenult as in désignate, démonstrate, confiscate, sátisfy (v). In weakly-retracting stress falls on the penult if it is heavy as in ellípsoid, mollúscoïd, stalágmite, gelígnite, eleméntary. Representative suffixes of each pattern discussed above are summarized as below:

(i) extrametrical suffixes are: *-ity*, *-ion*, *-(i)an*, *-al*, *-ous*, *-ive*, etc.

(ii) non-extrametrical suffixes are: *-ic*, *-id*, etc.

(iii) non-retracting suffixes are: *-ese*, *-eer*, *-esque*, *-ette*, etc.

(iv) strongly retracted suffixes are: *-ate*, *-(i)fy*, *-ize*, etc.

(v) weakly retracted suffixes are: -oid, -ite, -ary, -ory, etc.

Other than native varieties of English, many researchers have worked on the non-native varieties of English as well. For example, Wells (1986) discusses the prosodic characteristics of the Anglo-Indian accent of Indian English which are reported to be similar to the South-Welsh accent. It was mentioned that in this variety, a difference of stressed and un-stressed syllables depends on pitch and duration mostly, so, the intensity is the least relevant in this case.

Kachru (1983) and Bansal (1990) described the stress patterns of the Indian English variety that there is no distinction of stress patterns of bi-syllable words as nouns and verbs rather speakers of this variety regularize stress either on first or on the second syllable. So, no difference of stress position in the word 'record' as a noun as well as a verb. Similarly, the absence of stress shift is also reported in this variety, as in derived forms of words, which are words with suffixes, no shift in the stress position is brought, so the stress position of the stem of the word is retained. For example, 'examine' and 'examination' are pronounced with the same stress patterns.

Similarly, Pennington (1997) reported word stress patterns of other non-native varieties of English such as Hong Kong English, Malaysian English, Singaporean English and Guyanese English. In these varieties, alternate stress patterns of stress shift from first to second or from second to the first syllable are observed.

3. Research Procedure

The data of PE is recorded from the English news broadcasted from Radio Pakistan, Islamabad. To explore the rhythmic patterns of this variety; polysyllabic lexical words, i.e. words with more than one syllable, from PE news are selected. First stress patterns of PE are compared with BSE then a comparison of foot patterns is presented. For stress patterns, differences of stress positions on the basis of occurring stressed syllable(s) (primary and secondary both) in the word are discussed. Whereas for comparison of foot patterns of PE and BSE following three parameters are explored:

- a. Boundedness: It helps to decide about the number of stressed and unstressed syllables in a foot, i.e. bounded or unbounded foot.
- b. Headedness: It is useful to know about the position of stressed syllable (head) in the foot, i.e. left- or right-headed foot.
- c. Extrametricality: It provides information about such unstressed syllables which are not the part of a rhythmic pattern.

4. Comparison of Stress Patterns of PE with BSE

This section provides a comparison of stress patterns of PE with that of BSE. Stress patterns of poly-syllable words such as; bi/disyllabic, tri-syllabic, tetra-syllabic and penta-syllabic words; are mentioned in the form of tables to follow:

Table 1

Stress patterns of bi-syllabic words

Sr no.	Words from PE with phonetic transcription	Stress patterns of PE	Words from BSE	Stress patterns of BSE
1.	Eng. 'lish (N& A) [ɪŋ. 'liʃ]	Ultimate	'Eng.lish (N& A)	Penultimate
2.	Re. 'port (N) & (V) [rə. 'po:rt]	Ultimate	'Re.port (N) rə. 'port (V)	Penultimate Ultimate
3.	sup. 'port (N) & (V) [səp. 'po:rt]	Ultimate	śup.port (N) sup. 'port (V)	Penultimate Ultimate
4.	Pro. 'tect (V) [prə. 'tekt]	Ultimate	'pro.tekt (V)	Penultimate
5.	Ex. 'port (N) & (V) [əks. 'po:rt]	Ultimate	'Ex. port (N) Ex. 'port (V)	penultimate ultimate
6.	Head. 'lines (N) [hed. 'lainz]	Ultimate	'Head.lines (N)	penultimate
7.	Check. 'post (N) [tʃek. 'post]	Ultimate	'Check.post (N)	Penultimate

Table 1 presents a comparison of stress patterns of bi-syllabic words. In this table, it is clear that words (1-6) of PE show ultimate stress and their stress pattern does not change with a change in syntactic category. On the other hand, in BSE these words show the ultimate stress as 'verb' category only; whereas in the case of 'noun or adjective' stress pattern of these words is penultimate. Moreover, compound words in (7-8) that are noun also show the same difference of stress pattern i.e. ultimate in PE and penultimate in BSE. Comparison of tri-syllabic words, i.e. words containing three syllables, is given below.

Table 2

Stress patterns of Tri-syllabic Words

Sr no.	Words from PE with phonetic transcription	Stress patterns of PE	Words from BSE	Stress patterns of BSE
1.	In.ves. 'tors (N) [in.ves. 'tɔrz ¹]	ultimate	In. 'ves. tors (N)	Penultimate
2.	Pre.ssu. 'rized (A) & (V) [prə.ʃə. 'raɪzd]	ultimate	'Pre. ssu. rized (A) &(V)	Antepenultimate
3.	a.tten. 'dance (N) [ə.ten. 'dɛns ¹]	ultimate	a. 'tten. dance (N)	penultimate
4.	Pes.ti. 'cide (N) [pes.ti. 'saɪd]	ultimate	'Pes.ti. cide (N)	antepenultimate
5.	In.vest. 'ment (N) [in.vest. 'ment ¹]	ultimate	In. 'vest. ment (N)	penultimate
6.	In.ter. 'view (N) &(V) [in.tɜr. 'viʊ]	ultimate	'In.ter.view (N) & (V)	antepenultimate

7.	Sub.si. 'dy [səb.si.'di:]	ultimate	'Sub.si. dy	antepenultimate
8.	Sac.ri. 'fice [sək.ri.'faɪs]	Ultimate	'Sac.ri. 'fice	antepenultimate

The difference of stress patterns of tri-syllabic words is obvious in Table 2 that all the words (regardless of the difference of syntactic category) in PE make an ultimate stress pattern; on the other hand, same words in BSE show either penultimate or antepenultimate stress patterns. Dobrovolsky and Katamba (1996) used a term 'forcefully' for the allophonic free variation of /p/ sound in the coda position of word /stɒp/ in some English variety. Similar forceful production of some consonants at the coda position is also noted in PE, such as in the above table [z] in [In.ves.tɛɪnz] (**Needs Correction by the author**) is pronounced forcefully and this forceful production affects prominence. So, every type of consonant at the coda position is not weightful but only that coda consonant which is pronounced forcefully is weightful in PE.

The difference of stress patterns of tetra-syllabic words, i.e. words with four syllables, can be seen in Table 3.

Table 3

Stress patterns of Tetra-syllabic Words

Sr no.	Words from PE with phonetic transcription	Stress patterns of PE	Words from BSE	Stress patterns of BSE
1.	a. ,na.ly. 'sis (N) [ə. ,næ.lɪ.'si:z]	ultimate	a. 'na.ly.sis (N)	Antepenultimate
2.	Par. ,ti.ci. 'pate (V) [pɑ. ,ti.sɪ.'pe:t]	ultimate	Par. 'ti.ci.pate (V)	antepenultimate
3.	Cons. ,pi.ra. 'cies (N)	ultimate	Cons. 'pi.ra.cies (N)	antepenultimate

	[kəns.ˌpi.rə.ˈsiːz]		
4.	De. ˈmo. cra. ˌtic ultimate (A)		De. mo. penultimate ˈcra.tic (A)
	[də.ˈmɒː.krə.ˌtɪk]		
5.	Sa.tis. ˈfac.tion (N) penultimate		ˌSa.tis. penultimate ˈfac.tion (N)
	[sə.tɪz.ˈfæːk.ʃən]		
	De.le.ˈga.tion (N) penultimate		ˌDe.le.ˈga.tion penultimate (N)
	[de.li.ˈgeː.ʃən]		

In the above-given table words (5-6) do not show any difference of primary stress position; however, there is a difference of secondary stress which causes a difference in the stress patterns of these varieties of English. In PE, these words carry only primary stress; on the other hand, in BSE secondary stress is also placed on the first syllables of both of the words. On the contrary, words (1-4) from both the varieties have differences in primary as well as secondary stress. In these words, from PE, the secondary stress is placed on the second syllable from the left; while in BSE, the secondary stress is not put and these words only contain the primary stress. Stress patterns of penta-syllabic words, i.e. words with five syllables, from both the varieties are presented below.

Table 4

Stress patterns of penta-syllabic Words

Sr no.	Words from PE with phonetic transcription	Stress patterns of PE	Words from BSE	Stress patterns of BSE
1.	Re. ˌcon.ci. ˈlia.tion (N)	penultimate	ˌRe.con.ci. ˈlia.tion (N)	penultimate
	[rɪ.ˌkɒn.si.ˈli.e.ʃən]			

2.	Coun. 'duc.tive (A)	,ter.pro. penultimate	,Coun.ter.pro. 'duc.tive (A)	penultimate
		[kʌn. ,ter.prə.dʌk ¹ .trɪv]		
3.	Re.pre.'sen.ta.,tive (A)	ultimate	,Re.pre.'sen.ta.tive (A)	antepenultimate
		[rep.rɪ.zəʊn.tə.,trɪv]		
4.	A.no.'ny.mi.,ty (N)	ultimate	,A. no.'ny.mi.ty (N)	antepenultimate
		[ə.no.ni:ʊ.mi.,ti]		
5.	In.te.'rro.ga.,tive (A)	ultimate	,In. te. 'rro.ga.tive (A)	antepenultimate
		[ɪn.tə.ro:ʊ.gə.,trɪv]		
6.	e.lec.'tri.ci.,ty (N)	ultimate	e ,lec.'tri.ci.ty (N)	antepenultimate
		[ə.lek.tri:ʊ.s.,ti]		

In Table 4, all words from both the varieties do not show any difference in the placement of primary stress; therefore, a difference of stress pattern is established because of the secondary stress position. Although words (1-2) do not show any difference in the stress patterns of PE and BSE; but rest of the words (3-6) make an ultimate stress pattern in PE and an antepenultimate stress pattern in BSE.

Comparison of the stress patterns of PE and BSE is presented in this section. In this comparison, it is clear that multi-syllabic words from BSE make three types of stress patterns; i.e. ultimate, penultimate and antepenultimate; whereas, words from PE formulate only two types of stress patterns, i.e. ultimate and penultimate. Moreover, in bi-syllabic words from BSE, stress pattern changes with a change in a syntactic category of the word but these words from PE make only ultimate stress pattern; because the change in the syntactic category does not affect stress patterns in this variety.

5. Comparison of Foot Patterns of PE with BSE

This section compares foot patterns of these English varieties. On the basis of the stress patterns of both varieties presented above, foot patterns are compared in the table below.

Table 5

Comparison of foot patterns

Foot Patterns of PE:	Foot Patterns of BSE:
(Ex. 'port) (N) or (V) (Head. 'lines)	('Ex.port) (N) <Ex> ('port) (V) ('Head. lines)
<Mo>.(ni. 'tor) <In>. (ves. 'tors)	('Mo.ni) . <tor> <In> . ('ves. tors)
(Cons. ,pi) .(ra. 'cies) (a. ,na) . (ly. 'sis)	<Cons>.('pi.ra) . <cies> <a>.('na.ly) .<sis>
<e> . (lec. 'tri) . (ci. ,ty) <a> .(no. 'ny) . (mi. ,ty)	<e>.(,lec) .('tri.ci) . <ty> (,a. no) .('ny. mi) .<ty>

Table 5 illustrates that words from PE make a 'bounded right-headed' (Iambic) foot pattern. In the given words, <Mo> <In> <e> & <a> are extrametrical syllables. There is not any degenerate syllable formed in these words. Conversely, BSE shows 'bounded left-headed' (Trochaic) foot pattern. There are also some extrametrical syllables such as: <Ex>, <In>, <tor> , <Cons>, <cies>, <a>, sis>, <e> & <ty> . Moreover, there are also two degenerate syllables (≅port) and (,lec) found in these words from BSE.

6. Conclusion

It is concluded that PE shows many differences in the lexical stress patterns and foot patterns from that of BSE. As described above, in PE, the stress is preferred to be placed on the ultimate syllable irrespective of the syntactic category chosen. Moreover, PE allows only two stress patterns, i.e. ultimate and penultimate; whereas BSE allows three stress patterns. So, the antepenultimate stress pattern, which is the third pattern in native varieties of English, does not occur in PE. It is also seen that PE shows some differences in the placement of the secondary stress. Furthermore, differences are also noticed in foot patterns; as foot pattern of PE is ‘**Iambic**’ unlike BSE which shows ‘**trochaic**’ foot pattern. In the future, more supra-segmental features, such as intonation of PE can be explored so that the differences can be highlighted for a better understanding of this variety of English spoken in Pakistan.

References

- Afsar, A. & Kamran, U. (2011). Comparing consonantal Phoneme of Pakistani Standard English and British standard English. *Kashmir Journal of Language Research*, 14(1), 29-48.
- Akmajian, A., Demers, R. A., Farmer, A. K. & Harnish, R. M. (2010). *Linguistics: An introduction to language and communication*. (6th ed.). India: PHI Learning.
- Bacley, P. (2011). *An introduction to element theory*. Edinburgh: Edinburgh University Press.
- Ball, M., & Rahilly, J. (1999). *Phonetics: The science of speech*. London: Arnold.
- Bansal, R. K. (1990). *The pronunciation of English in India*. Hyderabad: Central Institute of English and Foreign Languages.
- Cho, Y.Y. & King, T.H. (2003). Semisyllables and universal syllabification. In Fery, C. & Vajver, R.V.D. (eds.). *The syllable in optimality theory*. 183-212. Cambridge: Cambridge University Press.
- Chomsky, N., & Halle, M. (1968). *The sound Pattern of English*. New York: Harper & Row.
- Davenport, M. & Hannahs, S.J. (1998). *Introducing phonetics and phonology*. London: Arnold.

- Dobrovolski, M. & Katamba, F. (1996). Phonology: the function and patterning of sounds. In Grady W. O; Dobrovolski, M. & Katamba, F. (eds.) *Contemporary linguistics* (3rd ed.).68-131. London: Longman.
- Ewen, C.J. & Hulst, H.V.D. (2001). *The Phonological structure of words*. Cambridge: Cambridge University Press.
- Fromkin, V., Rodman, R., Hyams, N., Collins, P., & Amberber, M. (2005). *An introduction to language* (5th ed.). Victoria: Thomson.
- Giegerich, H. (1992). *English phonology*. Cambridge:Cambridge University Press.
- Gordon, M. (2004). *Syllable weight*. In Phonetically based phonology, ed. Hayes, B., Kirchner, R & Steriade, D. 277-312. Cambridge: Cambridge University Press.
- Hussain, S. (2010). *Phonetic Correlates of Lexical Stress In Urdu*. Islamabad: National Language Authority.
- Hayes, B. (1982). Extrametricality and English Stress. *Linguistic Inquiry* 13, 227-276.
- Hayes, B. (1988). Metrics and phonological theory. In Newmeyer, F.J. (ed.). *Linguistics: The Cambridge survey: Linguistic theory: Extensions and implications*, (Vol. II), 220-249. Cambridge: Cambridge University Press.
- Hayes, B. (2009). *Introductory phonology*. Oxford: Blackwell Publishing.
- Jenkins, J. (2000). *The phonology of English as an International language*. Oxford: Oxford Univresity Press.
- Kachru, B.B. (1983). *The Indianization of English: The English language in India*. Delhi: Oxford University Press.
- Kondo, R. (2001). Guahibo Stress: Both trochaic and iambic. *International Journal of American Linguistics*, 67 (2). 136-166.
- Kreidler, C. W. (1997). *Describing spoken English : An introduction*. London: Routledge.
- Ladefoged, P. (2001). *Vowel and Consonants: An introduction to the sounds of languages*.Oxford: Blackwell Publishing.
- Lass, R. (1984). *Phonology: An Introduction to basic concepts*. Cambridge: Cambridge University Press.
- Lieberman, M., & Prince, A. (1977). On Stress and linguistic rhythm. *Linguistic Inquiry*, 8 (2) 249-336.

- McMahon, A. (2000). *Lexical phonology and the history of English*. Cambridge: Cambridge University Press.
- Mahboob, A., & Ahmar, N. A. (2004). Pakistani English: Phonology. In Schneider, E.D.; Burrige, K.; Kortmann, B.; Mesthrie, R. & Upton, C. (eds.) 1003-1016. New York & Berlin: Mout de Gruyter.
- Nesset, T. (2008). Abstract phonology in a concrete model: Cognitive linguistics and the morphology-phonology interface. Berlin: Mout de Gruyter.
- O'Grady, W., Dobrovolsky, M. & Katamba, F. (Eds.). (1996). *Contemporary Linguistic: An Introduction*. London & New York: Longman.
- Ortiz-Lira, H. (1998). *Words stress and sentence accent*. Argentina: Blackpool.
- Pennington, M. C. (1997). *Phonology in English language teaching: An international approach*. London and New York: Longman.
- Rahman, T. (1990). *Pakistani English: The linguistic description of a non-native variety of English*. Islamabad: National Institute of Pakistan Studies, Quad-i-Azam University.
- Selkirk, E. (1980). The role of prosodic categories in English word stress. *Linguistic Inquiry*, 11 (3), 563-605.
- Skandera, P. & Burleigh, P. (2005). *A manual of English phonetics and phonology*. Germany: Gunter Narr Verlag Tübingen.
- Tickoo, M. L. (2003). *Teaching and learning English*. New Delhi: Orient Longman.
- Wells, J.C. (1986). *Accents of English 3: Beyond the British Isles*. Cambridge: Cambridge University Press.
- Yavas, M. (2006). *Applied English Phonology*. Oxford: Blackwell Publishing.
- Zec, D. (1995). The role of moraic structure in the distribution of segments within syllables. In Durand, J. & Katamba, F.(eds.) *Frontiers of Phonology: Atoms, structures, derivations*. 149-179. London: Longman.
- Zamma, H. (2003). Suffixes and Stress/Accent Assignment in English and Japanese: a Survey. In *A New Century of Phonology and Phonological Theory* 59-469. Japan: Kaitakusha