

BANGLA-SPECIFIC STUDY OF ENGLISH MONOPHTHONGS

S. M. Mohibul Hasan

Department of English & Humanities
BRAC University, 66 Mohakhali C/A
Dhaka-1212, Bangladesh
email: mohibul@bracu.ac.bd

ABSTRACT

The non-phonetic nature of English spelling leads to unpredictable pronunciation. Thus, Bangla-speaking learners of English mispronounce English monophthongs--short and long vowels as contrasted with diphthongs--since they lack specific knowledge about the contrastive elements of their L2 and L1 monophthongs. In order to help them, this essay discusses the redundant and distinctive features of English and Bangla monophthongs; presents English monophthongs with their Bangla near-equivalents; pairs up English short vowels with their long counterparts in ways helpful to Bangla-speaking learners of English; and lists the non-syllabic (both phonemic and non-phonemic) realizations of English long vowels. Finally, it discusses some implications for learners.

Key words: Phonemes, Graphemes, Monophthongs, Long Vowels, Short Vowels

I. INTRODUCTION

Setter and Jenkins (2005) say, "Whatever the pedagogic orientation, however, pronunciation is universally considered to be a 'difficult' aspect of an L2 to teach and learn – and possibly *the* most difficult" (p. 1). Truly, as a teacher of *Phonetics and Phonology* at the undergraduate and MA levels, I have also felt that our learners exhibit a considerable difficulty when they try to produce English speech sounds. The reason is that English spelling is notoriously non-phonetic because the graphemes do not automatically lead us to the correct phonemes. There are transparent languages, such as Finnish, Italian etc., and the phonemes of the spoken forms of these languages link one-to-one to the letters of written language. The English writing system has only 26 letters representing 44 phonemes. Thus, in English, there are more sounds than letters to go round. This problem has led many to ridicule the language. There are few people in the academic arena who do not know that George Bernard Shaw used to make fun of the English orthographic system. Once Shaw wrote the word "fish"/fɪʃ/ as "ghoti", where "gh" is pronounced as "gh" in "enough", "o" as in "women" and "ti" as in "nation". Because of such misleading spellings, explicit teaching of pronunciation becomes an integral part of standard language teaching syllabuses. It should also be noted that standard pronunciation may not always be necessary for our

communication to be successful. However, if our students lack English phonological features in our speech, they may sound having an "accent" or there may even be a communication breakdown. On the other hand, standard pronunciation will help them with intelligible and confident communication. Along with this, it should contribute to the speaker's capability in communicating with the standard accent--thus, raising his or her status in the listeners' eyes. As it is true for ESL learners around the globe, pronunciation is also a very important learning factor for Bangladeshi Language learners who approach English pronunciation through their L1 lens.

II. PROBLEMS AND POSSIBLE SOLUTIONS

Bangla-speaking learners of English have two basic inter-related problems. First, they do not know the phonological differences between the monophthongs of Bangla and English. Second, as a logical consequence of the first, they transfer features of the phonemes of their L1 to those of L2. In other words, lack of knowledge forces them to resort to mispronunciation.

Bangla ESL learners may benefit from learning the contrastive elements of Bangla and English phonemes. As an effort to help the learners, my present paper attempts to compare RP

monophthongs¹ with their Bangla counterparts and point out their similarities and differences in order to analyze the kinds of difficulties that arise in our students' pronunciation of vowels, specifically monophthongs due to their L1 background. Then, this essay suggests Bangla ESL students some ways to apply their knowledge of similarities and differences in RP and Bangla monophthongs in order to improve their pronunciation.

III. REDUNDANT AND DISTINCTIVE FEATURES

If RP monophthongs are placed side by side with Bangla ones, the first aspect that is important is the distinction between the ideas of "redundancy" and "distinctiveness". A feature is considered redundant or phonetic, when its absence or presence does not alter the meaning of a given word in a language. On the other hand, the loss or addition of a phonemic feature causes a change in meaning. To understand what is redundant and what is distinctive in English and Bangla

monophthongs, we can consider the concepts of nasalization and vowel length.

A. Nasalization

English monophthongs tend to be nasalized if they precede, follow, and surround nasal consonants, e.g. dance [dã:ns], fence [fẽns], man [mã:n] etc. Nasalization can be seen in "vowel preceding /m/ in *ham* and /n/ in *and*, of vowel between nasal consonants in *man*, *men* ... vowels on each side of the nasal consonants in *any*, *sunny* ... and possible slight nasalization of vowel following /m,n/ as in *meal*, *now*" (Cruttendon, 2008, p. 299). However, the presence or absence of nasalization does not change meaning. Thus, nasalization in English is phonetic, not phonemic. The same is not true for Bangla. In this respect, we can look at the study of Zeenat Imtiaz Ali (2001, p. 66-91). The writer says that Bangla has seven regular vowels and their nasalized counterparts. Thus, all Bangla vowels have their nasal counterparts. Table 1 shows how changing one single feature (nasalization of vowel) causes meaning change in Bangla.

Table 1: Bangla regular and nasal vowels

	Bangla regular vowels	Bangla word with IPA transcription	Bangla nasal vowels	Bangla word with IPA transcription
1	/i/	সিঁতি /ʃi̯ti/ white	/ĩ/	সিঁতি /ʃĩti/ hair-parting, tiara
2	/e/	বেড়ে /beɾe/ excellent	/ẽ/	বেঁড়ে /bẽre/ tailless
3	/æ/	একা /æka/ alone	/æ̃/	এঁকা /æ̃ka/ zigzag
4	/a/	গাদা /gaða/ pile	/ã/	গাঁদা /gãða/ marigold
5	/ɔ/	বটি /bɔti/ pill	/õ/	বঁটি /bõti/ fish-knife
6	/o/	গোড় /goɾ/ root	/õ/	গোঁড় /gõɾ/ protuberance
7	/u/	1. কুচ /kuc/ woman's breast 2. উ /u/ Brahma	/ũ/	1. কুঁচ /kũc/ seed of a small shrub 2. উঁ /ũ/ yes

Because of such difference, while teaching the pronunciation of English vowels, relating them to the features of Bangla vowels can be beneficial to students. Thus, they become capable of understanding the difference between phonetic and phonemic features, which is crucial in learning pronunciation.

B. Vowel Length

In the following examples of Table 2, we cannot easily predict the graphemes' pronunciations from their spellings because the same graphemes have different phonemic realizations. As a result, many such pronunciations of words need to be individually learned.

¹This paper studies only RP (Received Pronunciation) monophthongs, not GA (General American) ones.

Table 2: Same English graphemes with different phonemic realizations

English word	Same grapheme with IPA transcription	Word	Same grapheme with IPA transcription	Comment
hood, good, look, book, etc.	oo /ʊ/	boo, food, hoot, mood, moon, moot, etc.	oo /u:/	The graphemes are confusing.
hit, bit, etc.	i /I/	police, fino, ski, regime etc.	i /i:/	
put, pull, shush, etc.	u /ʊ/	jute, luke, frugal, flu etc.	u /u:/	
England, pretty, eleven etc.	e /I/	even, he, she, be etc.	e /i:/	

Though graphemes do not help in determining pronunciation, English pronunciation does display one learning point definitively: vowel length is a distinctive feature. This fact is further attested by the existence of minimal pairs such as pit /pɪt/ and peat /pi:t/; pull /pʊl/ and pool /pu:l/; hut /hʌt/ and heart /hɑ:t/; the weak form of the word *were* /wə/ and its strong form /wɜ:/ etc.

In terms of vowel length, Bangla has the exact opposite case. Bangla orthographical symbols or alphabets have short and long graphemes (a pair of

graphemes for both /I/ and /ʊ/). And they are important for Bangla writing system. However, vowel length is not a distinctive or phonemic feature in pronunciation. For example, though orthographically the Bangla word নদী /no.ɖi/ (river) has a long grapheme at the end and গদি /go.ɖi/ (cushion) has a short one at the end, phonemically they have the same short vowel at their ends. Table 3 shows how different Bangla graphemes (short and long) represent the same phoneme.

Table 3: Different Bangla graphemes with same phonemic realizations

Bangla word	Short grapheme with IPA transcription	Word	Long grapheme with IPA transcription	Comment
দ্বীপ /ɖip/ elephant	ই /i/	দ্বীপ /ɖip/ island	ঈ /i/	The graphemes are confusing.
কুল /kul/ family	উ /u/	কুল /kul/ shore	ঊ /u/	

However, Bangla-speaking learners of English often prolong their vowels when they want to attract attention to any word or phrase. For example, when someone is excited or angry, s/he makes vowels longer:

(রোগাশিত) কী বললে তুমি? /ki: bolle tʊmi/ (Angry)
What did you say?

Thus, in such cases, vowel length is a phonetic feature, but not a phonemic or meaning-changing one.

IV. ENGLISH MONOPHTHONGS WITH THEIR BANGLA NEAR-EQUIVALENTS

Just like any other vowels, English monophthongs or pure vowels are voiced. They differ from each other in terms of openness or closeness--because of “the vertical distance between the upper surface of the tongue and the palate” (Roach, 2009, p. 11),

also known as tongue height--and frontness, centralness or backness depending on the part of the tongue, which is raised highest. English has seven short and five long vowels. They are ɪ, e, æ, ə, ʌ, ɒ, ʊ, i:, ɜ:, ɑ:, ɔ:, and u:. The following table

places English vowels with their Bangla near-equivalents. The sub-sequent discussion ignores two (/e/ & /æ/) of the English monophthongs as they pose as the least problematic to learners whose L1 is Bangla.

Table 1: English monophthongs with Bangla near-equivalents (BNE)

	Front				Central				Back			
	Short	BNE	Long	BNE	Short	BNE	Long	BNE	Short	BNE	Long	BNE
Close	/ɪ/	ই	/i:/	Long ই (ঈ)					/ʊ/	উ	/u:/	Long উ (ঊ)
Mid	/e/	এ			/ə/	very short অ্যা	/ɜ:/	Long অ্যা (অ্যাঃ)			/ɔ:/	Long ও (ওঃ)
Open	/æ/	এ্যা			/ʌ/	আ	/ɑ:/	Long আ (আঃ)	/ɒ/	অ		

A chart like the above with reference to Bangla near-equivalents works as a good starting point to Bangla-speaking learners of English. However, the above chart is not enough to phonetically describe the distance between vowels. So, to describe and

classify vowels accurately, phoneticians have devised a set of vowels called cardinal vowels. These vowels do not belong to any particular system. They work as a standard reference system. They represent all the vowels that human speech apparatus can generate. Figure 1 shows the cardinal vowel diagram (following Roach). Figure 2 is a quadrilateral chart of English and Bangla monophthongs.

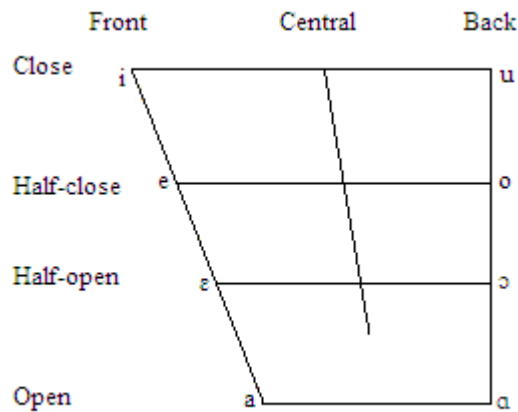


Figure 1: Cardinal Vowel Diagram

V. ENGLISH SHORT VOWELS AND THEIR LONG COUNTERPARTS

English has four pairs of vowels: /ɪ & i:/; /ə & ɜ:/; /ʌ & ɑ:/ and /ʊ & u:/. One important aspect of these pairs is that they exist mostly in pronunciation and very scarcely in orthography. Regarding these pairs of vowels, English spelling does not give any direct clue as to whether the phoneme is short or long. Rather, in many cases, it tends to confuse Bangla ESL learners. The pairs /ɪ & i:/ and /ʊ & u:/ can be discussed to delineate this point.

A. The pairs /ɪ & i:/ and /ʊ & u:/

For the /ɪ & i:/ pair, there is one single phoneme in Bangla /i/. All these three monophthongs are in the close front area of the vowel diagram. However, Bangla /i/ is less front and close than English /i:/ but more front and close than English /ɪ/. Thus, Bangla /i/ is more akin to the reduced form of /i:/ in

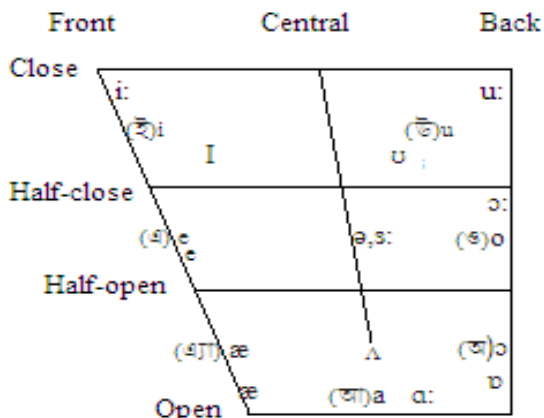


Figure 2: English and Bangla monophthongs

beat /bi:t/ (as contrasted with the full form in bead /bi:d/)¹, which is midway between /I/ & /i:/. As Bangla vowels are not marked for length, Bangla ESL learners tend to say /i/ for both /I/ & /i:/. Similarly, for the /ʊ/ & /u:/ pair, Bangla has only one phoneme /u/. All these three monophthongs are in the close back area of the vowel diagram. However, Bangla /u/ is less back and close than English /u:/ but more back and close than English /ʊ/. So, Bangla /u/ is more akin to the reduced form of /u:/ in moot /mu:t/ (as contrasted with the full form in mood /mu:d/). Just like the other pair, Bangla উ /u/ is midway between /ʊ/ & /u:/. Bangla ESL learners often miss this distinction.

However, the two orthographical representations in Bangla (ই, ঞ & উ, উ) for each of the two phonemes ironically boost the Bangla ESL learners' understanding of the two phonological realizations of the front and the back vowels in English. So, if pronunciation teachers consciously teach this distinction in the classroom, the learners should easily learn the fact that the English phonemes are marked for length, and thus, these two pairs should not pose as big a problem as do the following pairs.

B. The strut /strʌt/ and the start /stɑ:t/ phonemes

The only near-equivalent phoneme in Bangla for both of these phonemes, /ʌ/ & /ɑ:/, is আ /a/. All three monophthongs are open central vowels. Bangla আ /a/ is less open than English /ɑ:/ but more open than English /ʌ/. So, Bangla আ /a/ is similar to the reduced form of /ɑ:/ in cart /kɑ:t/ (as contrasted with the /ɑ:/ in card /kɑ:d/) and is midway between English /ʌ/ and /ɑ:/ (Siddiki, 2010).

The pair poses a big challenge to Bangla ESL learners. Unlike the above mentioned pairs, there is only one single orthographical representation in Bangla (আ) for both of these phonemes. Because Bangla-speaking learners of English do not have any other representations, they have a tendency to replace both /ʌ/ and /ɑ:/ with their আ /a/.

C. The schwa /ə/ and the hesitation phoneme /ɜ:/

These two phonemes are the most difficult ones for learners. Both of these monophthongs belong to the mid central area in the vowel quadrilateral. When

we say the /ə/ sound in words, the listeners hear an almost inaudible vowel. We often make this sound when we fail to understand someone and consciously request him/her to repeat what they said. On the other hand, we make the longer sound /ɜ:/ when we hesitate to say something.

Since Bangla does not have a weak vowel like schwa, this phoneme needs special attention. It sounds like a *very short* আ sound in Bangla. It is practically the short version of the long vowel /ɜ:/.

How may this be concluded? Three of /ɜ:/s recurrent and regular graphemes are the “er”, “ur”, and “or” (after /w/ phoneme) that are seen in words like *err*, *herd*, *nerd*, *curd*, *hurt*, *worm*, *work* etc. If “er”, “ur”, or “or” occurs in a strong syllable--where /r/ is important in determining the length of the vowel, it is almost invariably pronounced as /ɜ:/ as in the strong form of the word *were* /wɜ:/, *turtle* /tɜ:tl/, and *worth* /wɜ:θ/. However, the same grapheme sounds like /ə/ when it comes in an unaccented syllable--where /r/ is not pronounced--as it happens in case of the “er” grapheme in *water* /wɔ:tə/, *danger* /deɪndʒə/, the weak form of “were” /wə/, the “ur” in *Arthur* /ɑ:θə/, and the “or” in *author* /ɔ:θə/ and *error* /erə/. As these two vowels are so intimately related, when taught side by side, they prove very interesting to students, who find them extremely challenging otherwise.

D. English long vowel /ɔ:/ and short vowel /ɒ/

/ɔ:/ is the only long vowel phoneme in English that does not have any short counterpart. It sounds like the longer version of Bangla ও /o/ phoneme, also present in French words like *bonne* /bɔn/. Both /ɔ:/ and /o/ are mid back vowels but /ɔ:/ is more close than Bangla /o/. It is usually represented by the graphemes “au”, “aw”, and “or” as in *autumn*, *awesome*, and *order*. Similarly, /ɒ/ does not have any long counterpart. The nearest equivalent in Bangla is অ /ɔ/. Both /ɒ/ and /ɔ/ are half-open back vowels but /ɒ/ is more open than /ɔ/.

¹ A closing voiceless consonant in a syllable has a reducing effect on the long monophthongs. (Cruttenden, 2008, p. 117)

² As this paper studies only RP monophthongs, not GA ones, most instances of the R sound in this essay should technically be transcribed as /ɹ/. However, /r/ is used throughout for ease.

Bangla ESL learners are quite understandable even if they confuse /ɒ/ and /ɔ/ phonemes. Thus, this pair is the least problematic for them.

VI. NON-SYLLABIC VERSIONS OF THE LONG VOWELS

The consonant phonemes /j/, /r/, and /w/ are the non-syllabic versions of the long vowels /i:/, /ɜ:/ and /u:/. This is why /j/, /r/, and /w/ are called semivowels. About /j/ & /w/ phonemes, Peter Roach says, “The most important thing to remember about these phonemes is that they are phonetically like vowels but phonologically like consonants” (2009, p. 50). About /r/ & /ɜ:/ phonemes, Peter Ladefoged observes that the phoneme /ɜ:/ is the vowel version of the consonant /r/ (2001, p. 217). In case of /j/, /r/, and /w/, the throat (vocal tract up from larynx) closes off quickly resulting in the sounds’ very short duration to give them the non-syllabic quality as contrasted with their syllabic counterparts /i:/, /ɜ:/, and /u:/. So, phonetically /j/, /r/, and /w/ are similar to /i:/, /r/, and /u:/ respectively. However, when we are concerned about the distribution of /j/, /r/, /w/, they are preferred in a consonantal or marginal or non-syllabic positions, e.g. in the words yield /ji:ld/, row /rəʊ/, and woo /wu:/ as opposed to the /i:/, /ɜ:/, and /u:/ sounds, preferred in the central or syllabic positions. The following figures (3 and 4) show the common CVC structure of English syllables for yield and woo.

phonemic /j/ can be detected from the y in the spellings of lawyer and sawyer.

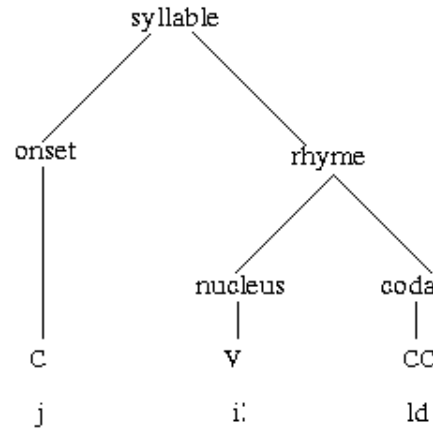


Figure 3: Syllable structure of yield

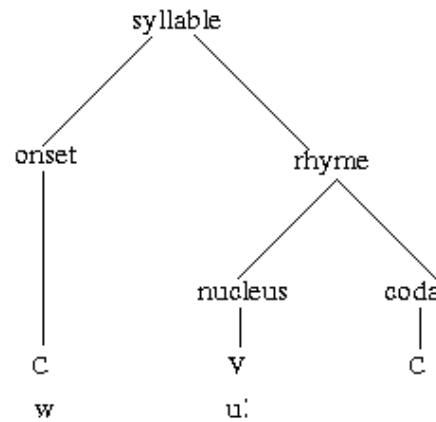


Figure 4: Syllable structure of woo

An interesting aspect of /j/ is observed when words like onion /ʌn.jən/, lawyer /lɔ:.jə/, and sawyer /sɔ:.jə/ are considered. In these words, /j/ phoneme gives us the clue about where the first syllable ends and the last one begins. Besides, the presence of a

Table 5: English long vowels with their non-syllabic realizations

	Long vowels	Bangla near-equivalents	Non-syllabic versions of long vowels	Bangla near-equivalents
Front	/i:/	Long ই (ঈ)	/j/	Semivowel of ই /j/
Central	/ɜ:/	Long অ্যা (আঃ)	/r/	র /r/
Back	/u:/	Long উ (ঊ)	/w/	Semivowel of উ /w/

VII. NON-PHONEMIC REALIZATIONS OF /j/, /r/, AND /w/

Another important aspect of /j/, /r/, and /w/ is that these phonemes also have non-phonemic uses in English. /j/ is often heard as a glide or a transition

sound as the speech apparatuses pass from the articulatory position of /l/ to the next vowel, and as a result, acts like an onset (which is always non-syllabic) in a syllable, as in seeing /si:(^l)ɪŋ/. In this context, Cruttenden (2008) says that “A junctural [l̥] glide may be heard between /i:, ɪ, eɪ, aɪ, ɔɪ/ and a following vowel ... However such a glide is rarely equivalent in nature to a phonemic /j/, the finishing point of the diphthong not being sufficiently prominent, nor the glide being long enough” (p. 227). He also adds that pairs like *my ear* [maɪ^{l̥}ɪə] & *my year* [maɪjɪə] show the difference between junctural or non-phonemic glide and the /j/ phoneme. /w/ is no exception to the above and often starts as a glide from /ʊ/ to the next vowel, and thus, is heard as an onset in a syllable, as in going /gəʊ(w)ɪŋ/. About /w/, Cruttenden (2008) observes, “The difference between phonemic /w/ and junctural [w̥] can be seen in the opposition between two-eyed [tu: ^waɪd] and too wide [tu: waɪd] ... (p. 230)”. Just like /j/ and /w/, /r/ also has phonemic and non-phonemic realizations in English. The regular /r/ in read /ri:d/ is definitively phonemic. However, linking /r/ and intrusive /r/ are confusing to students. To make them easier, I would like to follow Cruttenden’s formulation. Both linking /r/ and intrusive /r/ act as transition sounds between two vowels, and thus, are heard as onsets in syllables. However, only linking /r/ should technically be considered phonemic, as in the cases of *flora* /flɔ:rə/, *flooring* /flɔ:rɪŋ/, *Floor Inn* /flɔ:rɪn/, *urea* /jʊriə/, *scare up* /skeərʌp/, and *your ear* /jɔ:rɪə/. The reason is that linking /r/ is present in the spelling. And because the use of intrusive /r/ is disapproved by many phoneticians, I think that its use could be taught as non-phonemic or junctural as in *awing* [ɔ:’ɪŋ], and in *media are* of the sentence *The media are to blame* [ðə mi:dɪə’ɑ: tə bleɪm].

VIII. IMPLICATIONS FOR LEARNERS

Based on the observations of this Bangla-specific study of English monophthongs, the writer holds the opinion that Bangla-speaking learners of English should

- always remember that English monophthongs are marked for length (unlike Bangla) requiring more effort on the part of the learners.

- be able to nasalize vowels where appropriate but remember that English monophthongs are NOT marked for nasality (unlike Bangla).
- familiarize themselves with the distinctive and contrastive features of their L1 and L2 phonemes.
- be conscious about the differences of the two phonological systems, and thus, not fall prey to their interlanguage phonology (Selinker, 1972, p. 209).
- use available online and offline resources to train their mouths for speaking and ears for listening to a standard variety of English (preferably RP).

IX. CONCLUSION

Having no knowledge of the differences and similarities of the L1 and L2 phonemes (specifically L2 phonemes), Bangla ESL learners tend to pronounce English monophthongs according to their own interlanguage phonology. The author makes a comparative study of RP monophthongs and their Bangla counterparts and points out their similarities and differences so that Bangla-speaking learners of English may learn this and consciously apply their new knowledge to improve their speech.

REFERENCES

1. J. Setter, J. Jenkins: “State-of-the-Art Review Article” *Language Teaching*, 38, pp 1-17. (2005)
2. A. Cruttenden: *Gimson’s Pronunciation of English*, 7th ed., pp 227-99. London: Hodder Arnold. (2008)
3. Z. I. Ali: *Dhanibijnaner Bhumika (Introduction to Linguistics)*, 1th ed., pp 66-91. Dhaka: Mowla Brothers. (2001)
4. P. Roach: *English Phonetics and Phonology: A Practical Course*, 4th ed., pp 11-50. Cambridge: Cambridge University Press. (2009)
5. Z. R. Siddiki (Ed.): *English to Bengali Dictionary*, 2nd ed., Dhaka: Bangla Academy. (2002)
6. P. Ladefoged: *A Course in Phonetics*, 4th ed., pp 217. Boston: Heinle & Heinle. (2001)

7. L. Selinker: "Interlanguage". *International Review of Applied Linguistics in Language Teaching*, 10:3, pp 209-31. (1972).