

Revisiting Muhammad Abdul Hai and W.J. Ball's 'The Sound Structures of English and Bengali': A Critique of the Consonant Inventory

Naira Khan*

Abstract: This paper aims to review a section of the book titled 'The Sound Structures of English and Bengali' authored by Muhammad Abdul Hai and W.J. Ball. The book is focused on teaching English pronunciation to Bangla speakers, with a view to exploring the sound structure of both languages. By contrasting the sound structure of English and Bangla, it is intended to assist Bangla speaking students in developing their spoken English skills. According to the authors, a comparative study will enable students to discern between the similarities and dissimilarities in speech patterns, which will then ameliorate confusion and misinterpretation therein. The book limits the analysis to the Received Pronunciation (RP) model of English and is meant for students without prior exposure to an English-speaking environment, with a comparison of the sounds of Standard Colloquial Bengali (SCB) of the time, without taking into account the dialectal variation beyond SCB. Hence, the current critique is also limited to the sound system of SCB and aims to expand further in future work. The authors wrote the book with the intention that it would serve as a useful resource for teachers, and therefore it does not delve into phonetic theory, and instead emphasises the value of practice and a teacher-centered learning environment. An exploratory comparative investigation of Bangla and English vowels, consonants and intonation patterns is included in the contents. Due to constraints of time and space, this paper focuses primarily on the contrastive analysis of consonants of SCB and RP, with a review and reanalysis therein of plosives, fricatives, nasals, affricates, laterals, approximants, as well as consonant clusters, and a comparison of similarities and dissimilarities in the inventory of shared sounds. It compounds on the information presented by the authors by postulating comparative approximations of sound pairings from both languages that can minimise the phonetic distance in learning articulation at no cost to intelligibility or comprehension. It builds on the perspective of facilitating the learning of English by deviating from the RP model of English, as proposed by Ferguson (1962) in his review of said book.

* Associate Professor, Department of Linguistics, University of Dhaka, Bangladesh

1. Introductory remarks

Bangla (ethnonym: Bangla, exonym: Bengali), one of the most widely spoken languages in the world, is an Indo-European language that falls within the Indic subfamily. It maintains a substantial demographic presence, with an estimated 175 million speakers situated across the geographical expanse of Bangladesh and the Indian State of West Bengal (Dasgupta 2003; Lewis 2009).

The Bangla language is a complex tapestry of linguistic evolution and cultural heritage, and occupies a distinguished position within the elaborate mosaic of languages that adorn the South Asian subcontinent (Masica 1991). As a member of the Indo-Aryan branch of the Indo-European language family, Bangla encapsulates centuries of historical development, linguistic intricacies, and cultural expressions. Beyond its linguistic characteristics, Bangla serves as a conduit for the expression of cultural narratives, artistic endeavors, and historical memory. The language's rich literary heritage encompasses a treasure trove of poetry, prose, and religious texts that have left an indelible imprint on South Asian culture (Chatterji 1970; Bykova 1981).

In our present day context, Bengali speakers grapple with the challenges of globalisation, technological advancements, and language contact. The emergence of urban requirements, the coexistence of bilingualism and multilingualism, and the digital dissemination of language, contribute to the evolving dynamics Bengali speakers face in a rapidly changing world. One of these external forces and a formidable one that Bangla speakers have to contend with is the pressures of globalisation, and the necessity of acquiring the primary lingua franca that currently dominates the global stage – namely the English language.

English, a pivotal member of the Germanic branch within the Indo-European language family, occupies an exceptional position in the realm of global communication and cultural exchange. Renowned for its widespread usage across diverse domains, including academia, diplomacy, business, and popular culture, English serves as a lingua franca facilitating intercultural communication on an unprecedented scale.

The expansive influence of the British Empire and, later, the economic and cultural ascendancy of the United States have propelled English to the forefront of international communication. It boasts a vast array of regional and dialectal variations, with distinctions stemming from geographical, historical, and sociocultural factors. These variations range from British English dialects, such as Received Pronunciation and Scots, to the numerous American English accents and the diversity found within Commonwealth nations and former colonies (Smokotin et al 2014).

Beyond its linguistic features, English's sociopolitical significance is evident in its role as a global lingua franca. Its widespread adoption as a second or foreign language fosters cross-cultural interactions and enables access to a plethora of educational, economic, and cultural opportunities. The language's prevalence in international diplomacy, multinational corporations, and the digital realm further underscores its instrumental role in shaping modern global dynamics. As a result, English has pervaded trade commerce and education in our part of the world making it necessary for us to learn English (Murray 2006).

Although both the languages are Indo European, they stem from very disparate branches and have been influenced historically by a very diverse set of non-coinciding languages, and therefore have very different sound systems which present an interesting challenge in terms of learning accurate articulation (Masica 1991; Chatterji 1970; Ramaswami 1999). With this goal in mind Muhammad Abdul Hai and W.J. Ball have written the book titled 'The Sound Structures of English and Bengali' - a contrastive study aimed at teaching English in the RP model to Bengali speakers whose first language is Bangla and who have little to no exposure to a naturally occurring linguistic environment. By contrasting the sound structure of English and Bangla, it is intended to assist Bangla speaking students in developing their spoken English skills, as the authors contend that a comparative study will enable students to discern between the similarities and dissimilarities between speech patterns, which will then ameliorate confusion and misinterpretation therein. The book limits the analysis to the Received Pronunciation (RP) model of

English and is meant for students without prior exposure to an English-speaking environment. The authors wrote the book with the intention that it would serve as a useful resource for teachers, and therefore it does not delve into phonetic theory, and instead emphasises the value of practice and a teacher-centered learning environment. An exploratory comparative investigation of Bangla and English vowels, consonants and intonation patterns is included in the contents. The book has a very practical focus and straddles a fine balance between the technical and the non-technical in an effort to make the linguistic information therein accessible to non-linguists and laypersons. The book is written with the consideration that no language learning environment is complete without accurate audio stimuli and therefore is considered to be an aid to a teacher-centered learning process rather than a substitute for a teacher.

In this paper, I review a subsection of the book by exploring the section on consonants, and attempt to critique the information presented and add current research as a means of augmenting the analysis already set forth by the authors. This paper is organised as follows: with introductory remarks in §1 I explore the contents and organisation of the book (§2), with an overview of a review of the book by Charles Ferguson in §3 I embark on an exploration and critique of the section on consonants from the book in §4, with a final summarisation of the consonants from a contrastive perspective as sounds shared by both languages as well as those exclusive to each language in §5, I put forth some recommendations for future work (§6) and conclude the paper in §7.

2. Contents and Organisation

"The Sound Structures of English and Bengali" offers a comprehensive exploration of English pronunciation in light of the sounds of the RP model of English and Standard Colloquial Bangla (SCB). It begins by introducing basic concepts in phonetics and the phonetic symbols required to understand pronunciation, laying the foundation for studying the respective speech sounds. The concept of phoneme is also discussed, followed by a section called "The sounds of speech: vowels and consonants," It is with this section

that the contrastive analysis of the separate sound systems commences. The book then delves into specific vowel sounds, both in English and Bengali, presented with the phonetic symbols introduced at the beginning of the book. The distinction between "English simple vowels" and "Diphthongs" is elucidated, along with a detailed exploration of "Bengali diphthongs" and "English diphthongs."

The book further explores consonantal sounds, comprising both English and Bangla consonants. The presence of nasals and fricatives in both languages is studied comparatively, along with the lateral sounds of clear and dark 'l', as well as affricates. Additionally, as a segue between consonants and vowels, semivowels are examined, contributing to a comprehensive understanding of the diverse sounds in RP English and SCB. Reference is also made to non-standard varieties of Bangla to illustrate points about certain sounds and their resulting interference in terms of acquisition of RP pronunciations.

There is an intriguing method implemented in the book in introducing the sounds from a contrastive perspective using a hybrid approach of phonetic transcriptions in the International Phonetic Alphabet (IPA) as well as the roman script, and the meanings in their respective languages presented in the Bangla or Roman script, often devoid of glosses. An example is given on the form of an excerpt from the book (diagram 1), although there is wide variation in representational diagrams:

<i>Phonetic Symbol</i>	<i>Language in which it is used</i>	<i>Key word</i>
i:	English	feel
'i'	Bengali	chi-l (চিল)
i	English	fill
'e'	English and Bengali	bed
'æ'	English and Bengali	cat
'a'	Bengali	bhat (ভাত)

a:	English	part
‘ɔ’	English and Bengali	hot
ɔ:	English	walk
‘o’	Bengali	go-l (গোল)
u	English	full
‘u’	Bengali	chu-l (চুল), mu-l (মূল)
u:	English	fool
ʌ	English	but
ə:	English	shirt
ə	English	above

Diagram 1: English and Bengali Vowels (Hai and Ball, 1961:6)

The next section explores the common sounds in RP and SCB, highlighting phonetic similarities between the two languages. Conversely, the authors also identify "English sounds not heard in standard Bengali" and "Bengali sounds not heard in standard English," shedding light on phonetic elements unique to each language. An intriguing aspect, and one that is most useful to language learners, is presented through "English sounds as attempted by Bengali speakers," examining how pronunciation may be influenced by native language patterns leading to first language interference and amelioration strategies therein. The authors also delve into the complexities of "consonant clusters," providing insights into the phonotactics of combining consonant sounds in both languages.

The next section of the book explores the realm of suprasegmental features relevant for language learners -exploring the intonation patterns as well as strong and weak forms of stress, in order to highlight their significance in terms of pronunciation, as these suprasegmental features are phonemic in English and can lead to alterations of meaning due to native language interference (Hayes & Lahiri 1991; Khan 2008; Selkirk 2006). As the book caters specifically to Bengali learners of English, the authors proceed to address stress

in Bangla considering the distinct patterns in the language, with a final section of examples of intonation patterns, providing illustrative instances of intonation in speech to enable the learner's understanding of these contrastive phonotactic elements. With its comprehensive scope, this book promises to be a valuable resource for language enthusiasts, linguists, teachers and learners seeking to master the nuances of RP within the context of SCB from a phonetic approach.

3. Charles Ferguson's Review

The book titled 'The Sound Structures of English and Bengali' authored by Muhammad Abdul Hai and W.J. Ball, has been reviewed by Charles Ferguson in the 38th volume of *Language* (1962). According to Ferguson's review the core purpose of the book is to facilitate English language learners who are native speakers of Bangla from an East Pakistani (present day Bangladesh) background, with little to no exposure to an English-speaking environment. The book is focused on learning accurate English pronunciation in the RP model, in light of a contrastive analysis of the sound systems of English and Standard Bangla. Ferguson acknowledges that while contrastive analyses can be centered on various theoretical endeavours, the book under review inclines towards practical purposes in its focus of the contrastive study.

The practicality of the contrastive study is motivated by the idea that in the absence of a naturally occurring English speaking environment such contrasts help illuminate the difference between the sound systems, and hence equip the learning environment with error analysis tools to learn accurate pronunciation. Ferguson further points out that he agrees with the authors' contention that unless the learner is in an English speaking environment, such an effort to learn accurate pronunciation mandatorily requires exposure to samples of accurate models of pronunciation in the target language in the form of audio stimuli. Hence, the presence of a teacher as well as audio recordings is essential with a view to this book being an aid in the classroom rather than a substitute for teacher-centered learning.

Ferguson delves into the content and organisation of the book, stating how it explores the sound systems with a brief preface that highlights the differences of both albeit in a non-technical mode, followed by a more technical approach with phonetic terms to familiarise students with sounds and symbols, and then goes through a gradual progression of the sounds by categorising them as vowels, consonants, consonant clusters, sound differences, and finally suprasegmental features. He highlights that with a focus on error analysis the book explores each section with errors relevant to native Bengali speakers in the form of first language interference in learning English. He then explores the bibliography section with note that the form of English chosen is Received Pronunciation (RP) as modeled by Daniel Jones (1966), and represented with modified IPA and Jones' cardinal vowel system, and that the form of Bangla is primarily Standard Colloquial Bengali (SCB), with some notes on other non-standard variants such as Noakhali, Sylheti and the Kutti variety of Dhaka.

Ferguson has high praise for the book and the authors for the way in which it straddles the delicate balance between the non-technical and the technical, to create a handbook that not only serves as a resource for learning pronunciation but also one that can be used for teacher training with a view to teaching accurate RP pronunciation. He succinctly states that the book is a step in the right direction, and extols it highly for presenting concepts of linguistics and applied linguistics in a manner that is very accessible to non-linguists and laypersons. He adds a final note of praise for the way in which the book has successfully explored in detail the suprasegmental feature of intonation, one that is often overlooked in language learning.

While Ferguson has high praise for the authors and the contents of the book, he makes a few points of critical observation. These are summarised below:

1. Ferguson acknowledges that the balance between technical and nontechnical descriptions is a difficult one, and whether scientific accuracy must be sacrificed on the altar of practicality and accessibility. However, he states that an inclination towards

the more technical may have been required in some cases despite the cost to comprehension, namely in the section on sibilants and affricates. According to him, the aforementioned section had insufficient information to guide the learners regarding these sounds, and that the notes and special sections did not suffice in illustrating the said sounds.

2. Ferguson points out that SCB in then East Pakistan had already deviated from that of its West Bengali counterpart, and there was no adequate description of the differential dialectal values of these phonemes in Bangla, one that is salient for Bengali speakers learning English in East Pakistan.
3. He feels that the exposition on semivowels and diphthongs are also inadequate and require a much fuller treatment if acquisition of English 'w' and 'y' pose a great amount of difficulty for Bengali speakers whether in consonantal form or as the second element of complex-nuclei.
4. He notes that the omission of information on spirantal variation and labial aspirates in Bangla is another issue that needed to be addressed, as this is a significant contributor to the pronunciation difficulties arising from free variation of labiodental sounds and the acquisition of these sounds in English.
5. Ferguson questions the authors' choice of RP as a model of English, and states that while RP might present itself as an accessible model due to the availability of a plethora of information and metaknowledge on the model, it may have been more prudent to take into account the background phonology of the learners' and hence select a model of English that has less phonological distance, as even the spoken variety of fluent speakers of English in the region differ significantly from RP.
6. He further denotes that the model of English that was predominantly learnt by the educated classes in the region was from a Northern or Scottish variety of English. And this is evident from the pronunciation of preconsonantal rhotics, the

w/wh merger and certain vocalic features, and in fact it even has features that are not found in RP. Hence Ferguson puts forth the recommendation that such an endeavour to teach English to Bengali speakers should focus on points of pronunciation in English that result in loss of intelligibility or comprehension, rather than adhering to learning the accurate pronunciation of a particular model of English.

7. Ferguson has some critical observations regarding the typographical format of the publication, stating that while the book has a large and clear type, with proper use of the scripts from both languages and phonetics symbols, there are however misprints and some confusions between diacritical marks and phonetic symbols, but these do not pose an impediment to comprehension. The pagination and headings in the book are not consistent, but these do not affect the efficacy of the book.
8. He has been critical of the bibliography section as one being limited to English books only with a selective list of British publications, and has stated that it should have included books written in Bangla, by Bangla authors, and should have also included relevant publications from U.S.A., Pakistan (including Bangladesh), and India.

Ferguson concludes his review on a positive note, stating that the book has succeeded in applying linguistics in a pragmatic way to address a real-world practical problem, and that he hopes that it will take into account the above mentioned points of critical observations for a revised edition and provide inspiration for further publications of the same nature in South Asia.

4. The Sounds of Speech: Consonants Revisited

The section on consonants in the book titled "The Sound Structures of English and Bengali" presents the consonantal sounds of each language according to their phonetic characteristics from a contrastive perspective, with a view to the manner of articulation, with relevant points of place of articulation nested within. Although a lay student is not required to have previous knowledge of such phonetic classification, the motivation of such an arrangement is to

facilitate the learning of accurate pronunciation by means of understanding the phonetic articulation.

No.	Type of Consonant Group	Phonetic Symbol	Keyword	Keyword (p.s.)	Meaning in Bengali
1	Plosive (Unvoiced)	p	pen	pen	কলম
2	" (Voiced)	b	bag	bæg	ব্যাগ
3	" (Unvoiced)	t	ten	ten	দশ
4	" (Voiced)	d	desk	desk	ডেস্ক
5	" (Unvoiced)	k	come	kʌm	আসা
6	" (Voiced)	g	give	gɪv	দাও
7	Nasal (All voiced)	m	mouth	mauθ	মুখ
8	" "	n	name	neɪm	নাম
9	" "	ŋ	song	sɔŋ	গান
10	Lateral (Voiced)	l	look	lʊk	দেখ
11	Fricative (Unvoiced)	f	face	feɪs	চেহারা
12	" (Voiced)	v	very	veri	খুব
13	" (Unvoiced)	θ	three	θri:	তিন
14	" (Voiced)	ð	these	ði:z	এইগুলি
15	" (Unvoiced)	s	sit	sɪt	বসা
16	" (Voiced)	z	zoo	zu:	চিড়িয়াখানা
17	" (Unvoiced)	ʃ	show	ʃəʊ	দেখাও
18	" (Voiced)	ʒ	measure	meʒə	পরিমাপ
19	Trill (Voiced)	r	red	red	লাল
20	" (Unvoiced)	h	hat	hæt	হ্যাট
21	Affricate (Unvoiced)	tʃ	chalk	tʃɔ:k	চক
22	" (Voiced)	dʒ	June	dʒu:n	জুন মাস
23	Semi-vowel (Voiced)	w	window	wɪndəʊ	জানালা
24	" (Voiced)	j	yes	jes	হ্যাঁ

Diagram 2: Consonants of English (Hai and Ball, 1961: 15)

This paper will review each consonant section in accordance to the ordering in the book, except for the subsection of consonant clusters, which has been brought forward before discussing the contrastive summarisation of the sounds of both languages §5.

4.1 Plosives

Plosives, as their name suggests, are sounds that involve a burst of air or explosion per se, after a complete closure, the point of closure determining the type of plosive and is labeled accordingly (Crystal 1988; Ladefoged 1975). Hai and Ball state that there are 20 plosives in Bangla (diagram 3) and 6 in English (diagram 2), and proceed to illustrate the articulation of the English plosives.

<i>Type of Consonant Group</i>	<i>Phonetic Symbol</i>	<i>Key Word</i>	<i>Phonetic Script</i>	<i>Meaning in English</i>
Velar	k	কানা	kana	blind
	kh	খানা	khana	food
	g	গুনো	guno	you count
	gh	ঘন	ghono	thick
Alveolo-palatal	c	চানা	cana	gram
	ch	ছানা	chana	whey
	j	জাল	jal	net
	jh	বাল	jhal	hot
Alveolo-retroflex	ɽ	টিলা	tila	mound
	ʈh	ঠিলা	thila	jar
	ɖ	ডাক	dak	post
	ɖh	ঢাক	dhak	drum
Dental	t	তাল	tal	palm
	th	থাল	thal	plate
	d	দান	dan	gift
	dh	ধান	dhan	paddy
Bilabial	p	পাল	pal	sail
	ph	ফাল	phal	plough
	b	বান	ban	flood
	bh	ভান	bhan	pretense

Diagram 3: Plosives in Bengali (Hai and Ball, 1961:18-9)

However, if this presentation is accompanied with a comparative pairing of close approximations from Bangla sounds it might make the illustrations more accessible to a Bangla learner of English, rather than a mechanical description of the articulatory factors. Such a comparative pairing is added as a revision below:

4.1.1 'p' - Voiceless (aspirated) bilabial plosive

According to Hai and Ball (1961), "To make the sound 'p', put your lips together lightly, and then force a breath of air out through them". The sound 'p' in English is aspirated unless preceded by a fricative (Crystal 1988). In Bangla this sound is represented by the letter 'প' and its standard Bangla pronunciation /p^h/. It should be noted that the letter 'ফ' has an allophonic variant /f/ which in no way can be connected to the English pronunciation of aspirated 'p'. The unaspirated 'p' found in words such as *spill* and *spoon* is similar phonetically to the Bangla sound /p/ represented by the letter 'প'.

Comparative approximation:

pill → p → /p^h/ → প

spill → p → /p/ → প

4.1.2 't' - Voiceless (aspirated) alveolar plosive

As stated by Hai and Ball (1961), "To make the sound 't', the tip of the tongue is put against the hard ridge above the top teeth and is then forced away from it by the release of air from the air passage". The plosive 't' in English follows the same pattern and is aspirated in initial positions unless preceded by a fricative. In Bangla the closest approximation to this sound is represented by the letter 'ত' and its SCB pronunciation the post-alveolar /t^h/. The unaspirated 't' found in words such as *'still'* and *'stoop'*, has its closest phonetic approximation in the Bangla sound /t/ represented by the letter 'ট' – the difference being the place of articulation in Bangla is post-alveolar rather than alveolar, but it is an approximation that help students access the alveolar sound.

Comparative approximation:

till → t → /t^h/ → ত

still → t → /t/ → ট

4.1.3 'k' – Voiceless aspirated velar plosive

According to Hai and Ball (1961), "In making this sound the back of the tongue makes contact with the soft palate, and then forced away by the release of air from the air passage". Similar to 'p' and 't', the 'k' sound in English is also aspirated in initial position, and an inaspirate when preceded by a fricative. In Bangla this sound is represented by the letter 'ক' and its SCB pronunciation /k^h/. The unaspirated 'k' found in words such *skill* and *scan* is similar phonetically to the SCB sound /k/ represented by the letter 'ক'.

Comparative approximation:

kill → k → /k^h/ → ক

skill → k → /k/ → ক

4.1.4 Voiced Counterparts

Each plosive also has a voiced counterpart. Hai and Ball (1961) do not explore the pronunciation of the voiced counterparts apart from listing them. The sounds and their comparative pairing is given below:

Voiceless → voiced

p → b

t → d

k → g

Comparative pairing:

bill → b → /b/ → ব

dill → d → /d/ → ড

gill → g → /g/ → গ

The authors then proceed to analyse the error points generated by Bengali speakers due to first language interference. According to them the voiced bilabial plosive 'b' in medial and final position is often conflated with the voiced labiodental fricative 'v'. Eg: *verb* → /b^harv/, *wave* → /web/. This is, however, better understood in light of fricatives, in terms of Bangla phonotactics. As Bangla does not have any voiced labiodental fricatives in any of its varieties, the

closest sounds that speakers turn to are voiced bilabial plosives both in their aspirated and inaspirate forms, and as a result the substitution of 'v' with /b b^h/ carries over to medial and final 'b' in English words as well.

Hai and Ball (1961) also denote that the English 'p' is often pronounced as the fricative 'f', however this confusion in pronunciation comes from interference of non-standard Bangla forms. Eg – *slip* → *slif*, *put* → *fut*. It should be noted however, that for SCB speakers the issue is rather with aspiration than frication, as initial 'p' is almost always pronounced as an inaspirate /p^heek/ → /peek/, even though in English it is always aspirated, although aspiration is not phonemic.

The authors then proceed to present SCB consonants from the perspective of consonants not present in English. They denote that the voiced aspirated plosives do not occur in English, and conversely the voiceless plosives in English are always aspirated, whereas in SCB aspiration is phonemic and therefore voiceless plosives have both aspirated and unaspirated counterparts.

They also denote that the alveolo-palatal group of sounds in SCB are not found in English and their dialectal counterparts found in Kutti Bangla are the closest approximations to English palatal affricates i.e. /tʃ/ /dʒ/. However, more recent research along with spectrographic evidence shows enough frication in the alveolo-palatal group of consonants in Bangla to classify them as affricates rather than plosives (Khan 2010; Alam et al 2010).

The authors then proceed to denote some similarities between sounds found in non-standard Bangla and their counterparts in English, eg- the fricative /f/, discussed in more detail in §4.3.

4.2 Nasals

Nasal sounds are produced when the soft palate or velum is raised and the air flows through both nasal and oral cavities, with various closures determining the type of nasal (Crystal 1988; Ladefoged 1975). English has three nasal consonants, represented by the symbol /m n ŋ/. According to Hai and Ball (1961), "If you keep your

lips closed and then hum a continuous note, that note is a nasal sound. If the tongue is held in a neutral position, the humming sound is that of ‘m’. If you have the same note, this time with your mouth partially open, and the tip of the tongue, touching the top teeth, ridge, the sound you make is ‘n’. In forming ‘ŋ’ the back part of the tongue touches the soft palate”. Bangla has three nasals too (Hai 1960, Chatterji 1921). As correctly denoted by the authors, there is no phonetic difference between the English and Bangla nasal sounds. Bangla does however, have phonemic nasalisation unlike English, which has been extensively explored in the vowels section of the book, but as this paper is limited to the discussion of consonants it is not included here.

Comparative approximation:

mill → m → /m/ → ম

nil → n → /n/ → ন, ণ

sing → ng → /ŋ/ → ঙ

4.3 Fricatives

Fricatives are consonants that produce friction of the articulators as the airstream passes through (Crystal 1988; Ladefoged 1975). As Hai and Ball (1961) put it, “The sound of ‘friction’ is familiar to you. It means, literally, ‘rubbing’, that is to say there is a moving contact between two surfaces. There is, in case of fricative consonants, an obstruction which the air has to force its way past”.

4.3.1 ‘f’ – Voiceless labiodental fricative

According to Hai and Ball (1961), “To make a sound F, bring the lower lip up to touch the top teeth, and then force air between. It is in any case difficult to do this without considerable force, and we could hardly do it at all were it not that our teeth are not a solid block, but have minute gaps between them through which the air can be forced”. The authors postulate that the fricative sounds, in particular, the voiceless labiodental fricative /f/ is difficult for Bengali speakers to articulate, due to the sound itself being an allophonic variant of the voiceless aspirated bilabial plosive /pʰ/. Speakers of SCB tend to substitute the former for the latter.

However, this does not seem to be the case for Bengali speakers at present in Bangladesh (erstwhile East Pakistan). As the non-standard allophonic variant i.e. the voiceless labiodental fricative has begun to dominate over the voiceless aspirated bilabial plosive, and as a result the fricative /f/ does not pose a problem in terms of pronunciation of English for speakers of SCB. While SCB itself did not have /f/ in its phonemic inventory, it has now entered the repertoire through borrowed words from other languages that become assimilated into Bangla.

Comparative approximation:

fool → f → /f/ → ফ in সফর /sɔfɔr/, সাফ /saf/

4.3.2 'θ' – Dental fricative (Interdental fricative)

According to Hai and Ball (1961), "In making this sound, the tip of the tongue is held close to the upper teeth and then air is forced through the narrow gap between tongue-tip and teeth". This is a sound found in English and not SCB. It is at present identified and referred to as the interdental fricative (Crystal 1988). The authors contend that as the interdental fricative /θ/ does not exist in Bangla, Bengali speakers tend to conflate it with the voiceless aspirated alveolar plosive in English /t^h/, creating a confusion between words such as 'thin' and 'tin'. This, however, does not seem to be the case at present. The voiceless interdental fricative is more closely associated with the SCB phoneme – the voiceless aspirated dental plosive /t^h/ represented by the letter 'থ', and interchangeability of the two sounds does not affect meaning, and therefore is not marked as an interference.

Comparative approximation:

thin → th → /θ/ → থ /t^h/

4.3.3 's' – Voiceless alveolar fricative

As Hai and Ball (1961) state, "this sound is like the hissing of a snake or of air escaping from the punctured inner-tube of your bicycle". Rather than discussing the sound on its own the authors have drawn a comparative analysis of the voiceless alveolar fricative with the

voiceless palato-alveolar fricative (also identified as voiceless palatal fricative), both of which occur in both languages.

4.3.4 'ʃ' - Voiceless palato-alveolar fricative

According to Hai and Ball (1961), “if you put your finger in the roof of your mouth, you will feel there a narrow ‘valley’ above your top teeth. In making ‘ʃ’ the tip of your tongue retreats, as it were, up this ‘valley’ and, in consequence, the blade of your tongue becomes hunched up towards the hard palate. And so, when you force air through, you make the sound ‘ʃ’”.

The authors postulate that the above two sounds /s/ and /ʃ/ pose a problem for Bengalis in terms of pronunciation of English due to pre-existing perceptual issues precipitating from the sound to letter correspondence of these sounds in SCB. Bangla has both /s/ and /ʃ/ in its phonemic inventory, however they correspond to 3 letters i.e. ‘স শ ষ’, and the letters ‘স’ and ‘শ’ are both used to represent both the sounds subject to spelling rules specific to lexical items, while ‘ষ’ is only to represent the voiceless palato-alveolar fricative and never the voiceless alveolar fricative. The authors claim that the latter sound is one that has primarily been found in borrowed words as a stand-alone sound, or in clusters as an allophonic variant, while the former is found in the lexicon as the primary phoneme – and this leads to a conflation of the two which then carries over to the perception of these sounds in English resulting in a similar confusion in pronunciation. The authors have alluded to the idea that Bengali Muslims do not face similar issues.

It should be clarified that such a confusion exists in the dialectal continuum of Bangla amongst Bengali speakers gravitating towards West Bengal, with a strong regional divide rather than a religious one, although the majority religion coincides with the regions, with West Bengali speakers in India having this perceptual conflation between the two sounds in question, while for Bangladeshi Bengali speakers such a perceptual issue is not as common. The conflation of the two sounds being dominant in the dialectal variants of West Bengal often cause interference in the standard variety spoken in the region and is thus misleadingly perceived by the authors as a

religion-based feature. It should be mentioned further that the issue of perceiving the two sounds as one and conflating them, is one that is found cross-linguistically in all languages with a variety of sound pairs. The issue arises not from the representation of the sounds in the script, as denoted by the authors here, but due to the perception of the sounds as allophones of a single phoneme versus allophones of two separate phonemes (Sonderegger & Yu 2010). According to the phonetic studies of these sound pairs, it appears that the sounds pairs exist on a spectrum, and the speakers articulate a sound somewhere in the middle of the spectrum, which is then perceived and identified by the hearer as one of the two sounds at each end of the spectrum, resulting in a consistent flipping effect of the two sounds within the continuum.

In SCB, although it can be shown through minimal pairs such as /aʃte/(slow) /aʃte/(coming) or /saʃ/(sir) /ʃaʃ/(fertiliser), that /s/ and /ʃ/ are allophones of two separate phonemes, however, prior to the influx of borrowed words /s/ existed primarily as an allophonic variant of the palato-alveolar fricative /ʃ/ (Chatterjee 1970), and this configuration remains in the language with a higher frequency of occurrence, leading to perceptual differences that are then perpetuated by the speakers as an areal feature. Hence, Bengali speakers of variants prevalent on the West Bengal side tend to conflate /s/ and /ʃ/ and this carries over to their English pronunciation. However, for Bengali speakers in Bangladesh (erstwhile East Pakistan), this remains largely a non-issue.

The authors correctly denote that the voiceless alveolar fricative and voiceless palato-alveolar fricative are phonetically identical to the English sounds.

Comparative approximation:

sip → s → /s/ → স in স্যার /saʃ/, শ in শ্রেণী /sʃeni/

ship → sh → /ʃ/ → স in সব /ʃob/, শ in শব /ʃob/, ষ in আষাঢ় /aʃar/

4.3.5 Voiced counterparts – Fricatives

The fricatives as listed by the authors /f θ s ʃ/ each have a voiced counterpart in English. However, all of these are not phonemic in

Bengali. The authors list them as below, with a perfunctory mention of the confusion of the voiced alveolar fricative with the voiced palatal affricate:

Unvoiced → Voiced

f → v

θ → ð

s → z

ʃ → ʒ

Of the sounds listed above, the voiced labiodental fricative /v/ does not exist in SCB or its non-standard varieties, and is therefore most often substituted by its closest approximation as discussed in §4.1.4. The voiced interdental fricative /ð/ is most often substituted by the voiced dental plosive /d̪/, which, however, does not affect comprehensibility to a great extent, much like its voiceless counterpart. The voiced alveolar fricative /z/ is an interesting one, as it is prolific in non-standard variants of Bangla, however in SCB it only pertains to borrowed words which are often re-analysed into SCB phonotactics and substituted by the voiced palatal affricate /dz/. This substitution and the interchangeability of /z/ and /dz/ due to both sounds being allophonic variants of the phoneme /dz/ in free variation, once again leads to the conflation of the two sounds similar to the flipping phenomenon discussed in §4.3.4. And this perceptual issue carries over into English where the voiced alveolar fricative /z/ and the voiced palato-alveolar affricate /dʒ/ (closest approximation to Bangla /dz/) are two separate phonemes, and therefore, it becomes an issue of pronunciation with first language interference as exemplified by the authors. Eg. *zoo* > *jew*. The voiced palatal fricative /ʒ/ does not exist in SCB and is often substituted by /z/ or /dz/ even in borrowed words, but does not affect comprehensibility in SCB as such, and hence remains a point of interference for English learners.

Comparative Approximation:

van → v → /v/ → no comparative approximation in SCB; it can be learnt by point of articulation

then → th → /ð/ → ʈ /d̪/

zip → z → /z/ → ‘য’ in নামায /namaz/

déjà vu → j → /ʒ/ → no comparative approximation in SCB; it can be learnt by point of articulation

4.3.6 ‘h’ – Glottal fricative

According to Hai and Ball (1961), “this is the sound of breath, leaving the mouth without having to overcome any obstruction”. The authors claim that the Bangla glottal fricative is a voiced one, while the English one is unvoiced, however we can show with spectrographic evidence that both fricatives are unvoiced and phonetically the same (Khan 2008, Alam et al. 2010). As a result, this is a sound that does not pose any issue in terms of pronunciation of English for Bengali speakers. The authors denote that some Bengali speakers have the ‘w/wh’ merger, also known as the wine–whine merger – a phonological merger by which /hw/, historically a voiceless labio-velar approximant [ɰ], is articulated as phonetically indistinguishable from the bilabial approximant [w] (Wells 1982). Hence, according to the authors some Bengali speakers tend to overtly pronounce the ‘h’ in ‘wh’ words and mention that it is not pronounced in RP.

Comparative Approximation:

hat → h → /h/ → হ

4.3.7 ‘r’ – Alveolar trill or approximant

The section on English ‘r’ refers to the pronunciation of the sound as found in RP. As we know, the pronunciation of the rhotic can differ vastly in different dialects of English. According to the authors, the ‘r’ is a fricative in RP English, but that it is a tap in SCB similar to that of Welsh and Scottish speakers’ articulation of English ‘r’. It was also denoted that RP tends to drop the final ‘r’. Recent studies however show that the Bangla rhotic and the closest approximation to English ‘r’ is an alveolar approximant /ɹ/ which is never dropped and always articulated whether in initial, medial or final position (Dasgupta 2003, Khan 2010). The rhotic /ɹ/ can be realised as a tap [r], both instantiations can be devoiced in codas (Dasgupta 2003).

Comparative Approximation:

rat → r → /r/ → র/ɹ/

4.4 Laterals

A lateral is a consonant in which the airstream proceeds along one or both of the sides of the tongue – a partial closure is made at some point in the mouth, in such a way that the air stream is allowed to escape around the sides of the closure (Crystal 1988).

4.4.1 ‘l’ – Lateral approximant:

According to Hai and Ball (1961), “the word ‘lateral’ is from Latin (*latus* = side), and expresses the fact that in making the sound the tip of the tongue touches the teeth ridge and space is left at either side of the tongue for air to pass along it”. The authors proceed to draw a distinction between a clear ‘l’ /l/ and dark ‘l’ /ɫ/, as found in RP English. As the authors exemplify through words such as “*leave, lake, along*” etc.: “You will observe that in making the ‘l’ sound the front of the tongue takes a convex shape as it moves towards the hard palate” and is thus a clear ‘l’ /l/. In contrast, in words such as “*cool, call, feel*” etc., “this time you will observe that in making the final ‘l’, the tongue becomes concave, and the back of the tongue moves towards the soft palate”, thus producing a dark ‘l’ /ɫ/. However, this distinction does not exist in SCB and the lateral approximant in Bangla is a close approximation the English clear ‘l’. Hence the authors find it necessary to clarify the distinction in order to improve pronunciation, although the distinction is not phonemic.

Comparative Approximation:

lip → l → /l/ → ল

4.5 Affricates

Affricates are sounds that are a combination of a plosive and a fricative, in that an obstruction of the articulators are followed by a short burst of air which then leads to frication (Crystal 1988; Ladefoged 1975).

4.5.1 tʃ and dʒ - Palatoalveolar Affricates

According to Hai and Ball, “the sound ‘tʃ’ is formed by plosions and followed by friction, as shown by the two elements of the phonetic symbol. English children make the sound in imitating the puffing

rhythm of a steam engine". The authors claim that while SCB does not have any affricates, close approximations of the palato-alveolar affricates /tʃ/ and /dʒ/ can be found in the Kutti dialect of Dhaka. However, it can be mentioned that recent spectrographic analysis shows that SCB does indeed have affricates, these are the voiceless alveopalatal affricate /tʃ/ as represented by the letter 'চ' and its voiced counterpart /dʒ/ as represented by the letters 'জ', and their aspirated counterparts /tʃ^h/ as represented by the letter 'ছ', and its voiced aspirated counterpart /dʒ^h/ as represented by the letter 'ঝ' (Khan 2010, Masica 1991). It should be mentioned that like plosives as denoted in §4.1, the English voiceless palato-alveolar affricate is aspirated in initial positions /tʃ^h/, with its closest approximation found in the sound represented by the SCB letter 'ছ'. An unaspirated allophonic variant can be found following sibilants, which is similar to the sound represented by the letter 'চ'. While its voiced counterpart is never aspirated in English.

Comparative Approximation:

chew → ch → /tʃ^h/ → ছ /tʃ^h/

eschew → ch → /tʃ/ → চ /tʃ/

jail → j → /dʒ/ → জ /dʒ/

4.6 Semivowels

Semivowels or approximants are sounds that are produced by the narrowing of articulators so as to produce friction but not obstruction (Crystal 1988; Ladefoged 1975). Semivowels are said to exist on a spectrum between fricatives and vowels.

4.6.1 w and j – Semivowels/Approximants

According to Hai and Ball (1961), "in order to pronounce 'w' correctly, put your lips into the correct position (rounded) first, before making the sound. Do not make the sound while you are moving your lips into the required position." The articulation of j has not been described. Bengali also has two semivowels 'w' and 'j', that are phonetically the same as English (Hai 1964, Hai and Ball 1961). The authors note that these two sounds are difficult for Bengali speakers. Hence such words are reanalysed in the following way

/wɔ:tə>ɔ:tar/, /jes>ies/. Hence, either the initial sound undergoes deletion, or it is analysed into two vocalic sounds. They do not however provide an explanation as to why it is difficult or a strategy for its amelioration. In this paper I claim that the reason the words exemplify show these sounds only in initial positions, and as SCB does not have words with the semivowels /w/ and /j/ in initial positions, speakers tend to delete them altogether or reanalyse them over a syllable break resulting in two vocalic sounds as an approximation of the semivowel. However, the semivowels are pronounced accurately in medial positions, hence it is a positional issue and articulation can be ameliorated through conscious learning of word-initial articulation as the sound already exists in the learners' repository.

4.7 Consonant Clusters

The authors postulate that the issues in processing and articulating consonants will be carried over to consonant cluster. As we have revised this perspective in terms of the consonants denoted by the authors, as described in the previous sections, our subsequent analysis of consonant clusters will also differ. It should be mentioned that the selection and focus on clusters here follows that of the authors. Here, we will follow that line of thought with a discussion of consonant clusters that pose pronunciation issues for the learner and critique it accordingly:

4.7.1 Aspiration:

Although this section is labeled as aspiration, the authors have listed words pairs where the voiceless bilabial plosive has undergone complete fricativisation or spirantisation /p/ → /f/. Eg – *please* → *fleas*.

Such issues in the articulation of the voiceless bilabial plosive is usually due to interference of regional varieties of Bangla, and not found in SCB speakers of Bangla as such. Apart from this the authors have also exemplified the de-aspirated alveolarisation of voiceless interdental plosives. Eg – *three* → *tree*. This is not a common occurrence in SCB learners of English, therefore further data collection is required to confirm the issue of pronunciation here.

4.7.2 Confusion of /j/ and /s/:

As noted in §4.3.4, the authors have postulated that Bengali speakers often conflate /j/ and /s/ in Bangla and that is carried over into their English pronunciation as well. However, as we have discussed in the previous section, such a conflation is more prevalent in SCB speakers in the state of West Bengal in India than in Bangladesh. Therefore, the confusion mentioned does not bleed into the pronunciation of English as much in the context of Bangladesh. It should be noted, however, that SCB speakers do tend to pronounce /s/ in words that are spelt with 's' but have an /j/ pronunciation, eg – *sugar*. The clusters presented by the author i.e. *mast* > /masht/, *rushed* > /rast/, are not entirely relevant for SCB speakers of Bangladesh.

4.7.3 Final and Medial *ft*, *vd*, *lp*:

The authors denote a mispronunciation of the consonant clusters *ft*, *vd*, *lp*, which once again ties into the spirantisation of bilabial and labiodental sounds due to interference of non-SCB Bangla such as Noakhali, eg – *loft*>*loved*, *raft*>*rapped*. However, such examples are not common in speaker of SCB and more data is required to substantiate this claim.

4.7.4 r-Initial Clusters:

According to Hai and Ball, clusters in the form of -*vr*c comprising of an r-initial cluster preceded by a vowel and followed by a consonant pose an issue. This is not due to the phonetic difference of the rhotic in either language, but due to the reanalysis of the preceding vowel or the succeeding consonant according to SCB phonotactics.

Eg –

--rd → heard > hard > hurt > heart

--rb → curb > carve > curve

--rts → church > charts

--rp → carp > calf

--rt → hurt > heard > hart > heard

--rth → hearth > heart

More data is required to clarify this issue of reanalysis, as it is not clear whether such a mispronunciation is due to the cluster or categorically found in words where these vowels are conflated, and therefore may be a vocalic issue more than a cluster issue. As this study is limited to a critique of the consonantal analysis in the given book, further analysis of the vowel sections will be able to shed light on this issue combined with further empirical data.

4.7.5 -s-, -z, -j Final Clusters

The authors denote that there is confusion in clusters with fricatives in the final position, either resulting in devoicing /z>s/, or conversely voicing /s>z/ or the palatalisation of 's' resulting in the confusion of 's' and 'j' as mentioned in §4.3.4, or t-deletion, or fricativisation of the palatoalveolar affricate (as discussed in §4.5). Although the authors are identifying the issue through clusters, the confusions stated here arise from the fricatives in the component sounds and pre-existing articulation issues therein, as discussed in the previous sections, and that appears to be the thread of commonality in these clusters.

-- dz → friends > french, glands > glance > glansh

-- ns → once > ones

-- nts → mints > mince

--ds → budge > buds

4.7.6 -ntj Final Cluster

The confusion of 'tj-final' clusters often result in the palatal affricate getting replaced by the alveolar fricative eg – *paunch* > *pawns*. These issues appear to be more of an issue of interference of non-standard Bangla where the two sounds /s/ and /tɕʰ/ are often conflated and this confusion is carried over to /s/ /tj/. The author also proceed to show some voicing and vocalic confusions and more data is required to study the progression of this phenomenon.

bench > bents > bends

launch > lawns > lunch

4.7.7 Semivowels

Hai and Ball (1961) note that the bilabial approximant *w* poses an issue in words such as '*swill*', '*dwell*', '*twitch*' etc and the words then get reanalysed into composite vowels that are a close approximation of the bilabial approximant. It should be noted that as shown in §4.6, the issue with the pronunciation of approximants is mainly positional, as the occurrence of bilabial and palatal approximants in the initial syllable is not common in SCB, and therefore speakers tend to break it up into two vowels spread over the syllable break. Hence, according to the authors the aforesaid words get reanalysed as:

swill > so.ill

dwell > do.well

twitch > too.itch

4.7.8 Final -nt and -nd

The authors assume that words with final clusters such as '-nt' and '-nd' may be conflated eg- *found* > *fount*, *pined* > *pint*. However, this is not that commonly heard or one that leads to major intelligibility issues.

4.7.9 sC-initial clusters

The authors correctly denote that words with 'sC-' clusters such as 'sk-', 'st-', 'sp-' in word-initial position pose a major issue in terms of pronunciation and are then reanalysed to epenthise a vowel that precedes the cluster eg- /skul > iskul/. The authors draw an analogy with Punjabi speakers of English and their word-medial epenthesis in order to explain the phenomenon eg- *station* > /sətəijn/.

While the Punjabi analogy comes close, in this paper I provide a more contextual explanation in light of Bangla phonotactics. The issue arises from having the said clusters in a single syllable in the word-initial position, one that is primarily found in words borrowed from Sanskrit into Bangla (Chatterjee 1970). Hence speakers that have issues with articulating these word-initial clusters in the Sanskrit-origin words tend to exhibit this issue in their pronunciation of the same clusters in English.

The issue with processing sC- clusters in a single syllable in word initial position is then ameliorated by epenthesis of a vowel which precedes the cluster and therefore re-analyses the syllable structure to assimilate the 's-' as the coda of the epenthesised vowel, and the following consonant in the cluster then becomes the onset of the next syllable, spreading out the cluster over two syllables:

sk.ul > is.kul

sp.un > is.pun

st.ik > is.tik

A more comprehensive analysis of Bangla epenthesis in consonant clusters is integral in understanding how L1 phonotactic constraints affect English consonant clusters beyond the ones highlighted here, which follows the clusters presented in the book under discussion.

With the above discussion on consonant clusters I conclude the exploration of individual sounds and take a step back to get a bird's eye perspective of the two contrasting points between the two sound systems by summarising the sounds that are shared by both languages as well as sounds that are exclusive to both languages – data points that are salient in a language learning resource.

5. The Commonality of Shared Sounds and Sounds Exclusive to SCB and RP

This section reviews coinciding sounds in RP and SCB, as well as their difference in distribution. It should be mentioned that as Ferguson (1962) noted in his review an attempt to completely emulate RP in terms of the articulation of sounds is not a very fruitful exercise given the differences in the phonology of the first language of the learners, and a more productive method would be to learn a model of English that has closer approximations as long as there is no cost to intelligibility. In the same spirit, I have charted the similarities and dissimilarities as posited by Hai and Ball and revised them to show that there are fewer differences than expected and close approximations that can be used interchangeably at no cost to comprehension. As this paper limits its review to consonants, I will also explore the subsection of consonants here.

5.1 Sounds that are heard in both Bangla and English

As charted by Hai and Ball the consonants that can be heard both in SCB and RP are given below:

Plosives: b d g

Fricatives: ʃ s h

Nasals: m n ŋ

Lateral: l

These are diagrammatically charted below:

Place →										
Manner ↓	Bilabial	Labiodental	Dental	Alveolar	Palato-alveolar	Alveo-palatal	Post-alveolar	Palatal	Velar	Glottal
Plosive	b			d					g	
Nasal	m			n						ŋ
Trill										
Tap or Flap										
Fricative				s				ʃ		h
Approximant										
Lateral Approximant				l						
Affricate										

Diagram 4: Sounds heard in both SCB and RP

5.1.1 Sounds that are heard in both Bangla and English: Revisited

I revise the chart in diagram 5 to give a different inventory of shared sounds in SCB and RP:

Place →									
Manner ↓	Bilabial	Labiodental	Interdental/Dental	Alveolar/Post-alveolar	Palato-alveolar	Alveo-palatal	Palatal	Velar	Glottal
Plosive	p ^h b			t ^h d				k ^h g	
Nasal	m			n					ŋ
Trill									
Tap or Flap									
Fricative		f		s z			ʃ		h
Approximant	w						j		
Lateral Approximant				l					
Affricate									

Diagram 5: Sounds heard in both SCB and RP revisited

Trill				r					
Tap or Flap									
Fricative			θ ð				ʒ		
Approximant									
Lateral Approximant				ɹ					
Affricate			ts dz	tr dr	tʃ dʒ				

Diagram 7: Sounds heard in RP and not SCB revisited

5.3 Consonants in Bangla not heard in English

As per Hai and Ball, the following consonants are found in SCB but not in RP:

Plosives: k k^h g g^h c c^h ʃ ʃ^h t t^h d d^h ʈ ʈ^h ɖ ɖ^h p p^h b b^h

Tap: r r^h

Trill: r

These are diagrammatically shown below:

Place →									
Manner ↓	Bilabial	Labiodental	Interdental/ Dental	Alveolar/ Post-alveolar	Palato-alveolar	Alveop-alatal	Palatal	Velar	Glottal
Plosive	p b p ^h b ^h		t̪ d̪ t̪ ^h d̪ ^h	t d t ^h d ^h			c ʃ c ^h ʃ ^h	k g k ^h g ^h	
Nasal									
Trill				r					
Tap or Flap				r r ^h					
Fricative									
Approximant									
Lateral Approximant									
Affricate									

Diagram 8: Sounds heard in SCB and not RP

5.3.1 Consonants in Bangla not heard in English: Revisited

I revise the above diagram to show that there are fewer differences than expected:

Plosives: k g^h t d d^h ʈ ʈ^h ɖ ɖ^h p b^h

Tap: r

Approximant: ɹ

Affricates: tɕ tɕ^h dʒ dʒ^h

These are shown diagrammatically (9) below:

Place →									
Manner ↓	Bilabial	Labiodental	Interdental/ Dental	Alveolar /Post- alveolar	Palato- alveolar	Alveop- alatal	Palatal	Velar	Glottal
Plosive	p b ^h		t̪ d̪ t̪ ^h d̪ ^h	t d ^h				k g ^h	
Nasal									
Trill									
Tap or Flap				r					
Fricative									
Approximant				ɹ					
Lateral Approximant									
Affricate						tɕ tɕ ^h dʒ dʒ ^h			

Diagram 9: Sounds heard in SCB and not RP revisited

5.4 Sounds that are Heard in both Bangla and English: Revised with Comparative Approximation Pairings

The charts above are summarised to posit a different inventory of shared sounds in SCB and RP, and include approximation pairs that are close enough phonetically to be interchangeable, as indicated by a forward slash, shown in the diagram (10) below:

Place →									
Manner ↓	Bilabial	Labiodenta l	Interdental/ Dental	Alveolar/ Post-alveolar	Palato-alveolar /Alveopalatal	Palatal	Velar	Glottal	
Plosive	p ^h b		θ/t̪ ^h ð/d̪	t ^h d			k ^h g		
Nasal	m			n				ŋ	
Trill				r/ɹ					
Tap or Flap									
Fricative		f		s z		ʃ		h	
Approximant	w					j			
Lateral Approximant				l					
Affricate					tʃ ^h /tɕ ^h dʒ/dʒ				

Diagram 10: Sounds heard in both SCB and RP with comparative approximations

6. Future Work

This paper reviews a subsection of the book titled “The Sound Structures of English and Bengali” by Hai and Ball, a comparative analysis with a practical focus of teaching English in the RP model to Bengali learners whose first language is Bangla with very little exposure to an English-speaking environment. While such an endeavour, as captured in the chapters of the entire book, is commendable, one of the limitations of the book is the attempt to teach articulation in the model of RP English without much consideration to the phonological distance of the sound systems of SCB and RP. As Ferguson (1962) denoted in his review of said book, such an attempt is somewhat less productive and focus should be given more on a model of English with less phonological distance from the speakers’ native language with a view to intelligibility, rather than parroting perfect articulation of RP. Hence, from this perspective, the present paper has proposed revisions to the consonant section by postulating comparative approximations that can be included in an effort make the English sound system more accessible, and thereby facilitate language learning. Such an effort can be taken further in future to include vowels and the suprasegmental system and create a learning model that teaches English in a more accessible way. The next level of analysis would have to be extended to the dialect continuum of Bangla and analyse the challenges there in learning English pronunciation given the sounds of the learner's Bangla variant. It will also be useful both for the scholar of linguistics as well as the language learner to include spectrographic analysis of the relevant sounds with more empirical real-time data. Given that we are now in the age of multimodal language learning, it is also possible to include searchable hyperlinks in the book and set up a relevant website, where a repository of spectrograms and animations of articulation can aid in learning accurate pronunciation in a more tangible manner. The book itself is now quite dated and can be revised to include more current

research and spectrographic information, which will not only make it informationally rich but also add another dimension for teaching and learning.

7. Conclusion

This paper reviews a section of the book titled 'The Sound Structures of English and Bengali' authored by Muhammad Abdul Hai and W.J. Ball. The authors have presented a comparative analysis of the sound structure of both languages, with a practical focus to teach English in the RP model, to Bengali speakers who speak Standard Colloquial Bangla with little to no exposure to a naturally occurring English linguistic environment. By contrasting the sound structure of English and SCB, it is intended to assist Bangla speaking students in developing their spoken English skills. According to the authors, a comparative study will enable students to discern between the similarities and dissimilarities between speech patterns, which will then ameliorate confusion and misinterpretations therein. This paper focuses primarily on the contrastive analysis of consonants with a review and reanalysis therein. I have conducted a review of the contrastive analysis of plosives, fricatives, nasals, affricates, laterals and approximants, and compounded on the information presented in the book by postulating comparative approximations of sound pairings from both languages that can minimise the phonetic distance in learning articulation at no cost to intelligibility or comprehension. I then explored and critiqued the information presented for clusters as well as the comparison of similarities and dissimilarities in the inventory of shared sounds. The postulation of comparative approximations is in the spirit of following Ferguson's review (1962), which states that such an endeavour to teach English through contrastive study should explore more accessible models of English for native speakers of Bangla given Bangla phonotactics, rather than simply attempt a complete emulation of RP, as that may not be an achievable goal and one that can even cause hindrance to the learning process. This paper also proposes further augmentation of

this work by adding a similar review of vowels and the suprasegmental system, as well as a multimodal dimension of hyperlinks, real time spectrographic information and animations of articulation in order to facilitate the learning process further and propel it into the present-day multidimensional language classroom.

Notes

1. This paper is dedicated to the memory of Professor Abul Kalam Monjur Morshed, for inspiring this article and for being a brilliant teacher, mentor and academic in the world of linguistics.
2. It should be mentioned that at the time of writing of this book SCB referred to the standard variety of Bangla as spoken by the erudite elite of Kolkata and its surrounding areas. However, at present there exists two varieties, with the Dhaka Standard being the one spoken in Bangladesh (erstwhile East Pakistan), which is phonologically and lexically distinct from the Kolkata Standard (spoken in the Indian State of West Bengal) (Ferguson & Chowdhury 1960).

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