Introducing the IPA Symbols for English Consonant Phonemes to Bengali Learners of English and the Ensuing Challenges

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Abstract

Despite learning English as a compulsory subject for twelve years, Bangladeshi adult students can hardly communicate orally because of their pronunciation being very faulty. The exams never test the examinees' ability to speak, resulting in widespread negligence towards pronunciation. If these learners ever approach the International Phonetic Alphabet as an attempt to develop a self-correcting mechanism, they show some particular tendencies. This study was carried out to determine the extent to which Bengali speaking Bangladeshi learners of English depend on English letters to read English words in IPA transcription. It also aimed to establish a hierarchy of the symbols in terms of the learners' difficulty to master them. By employing an experimental research design as well as a questionnaire survey it was revealed that learners heavily rely on their knowledge of English letters while reading English words in transcription. It was also found out that all the IPA symbols for English consonant phonemes are not equally difficult for them to master: there is a clear hierarchy of difficulty.

Key words: IPA; Bengali speaking Bangladeshi learners; English consonant phonemes; Segmentals; Suprasegmentals; Phonemic transcription; ESL; EFL

INTRODUCTION

Due to people's increased mobility, joint study programmes, commercial networks, information technology, and many more, the ability to speak in English is generally acknowledged to be an indispensable skill in today's world. As with the rest of the world, this is an essential skill for the Bengali people living in Bangladesh. In addition to face to face and electronic conversations in English with foreigners on the phone as well as via the Net, an increasing number of Bengali speaking Bangladeshi students, workers and business people are visiting and living in many foreign lands where they must speak in English to communicate with the non-Bengali foreigners.

With regard to speaking in English, most Bangladeshis appear to be very shy, which is caused by their, among others, self-conscious diffidence about their erroneous pronunciation resulting from a tradition utterly negligent to English pronunciation. Although English is taught as a compulsory subject for 12 years in the country, nowhere in this long curricula is anything which focuses on pronunciation. The two major public exams (SSC and HSC) as well as their equivalents, which test the examinees' level of English proficiency for 400 points (about 20% of the total), do not include any speaking ability testing mechanism. All other entrance and recruitment tests follow suit. In consequence, except for few isolated efforts at individual or family level, English pronunciation ever remains neglected letting the learners be led by their own discretion and ultimately become habituated to grossly incorrect pronunciation.

However, thanks to international English proficiency tests like IELTS, there is now a demand, though not very widespread, for better English pronunciation among some of the stakeholders. With pronunciation being

one of the four criteria used for assessing an IELTS test taker's ability to speak English (see IELTS Speaking band descriptors), and hundreds of Bangladeshis taking the test every month, the demand for better English pronunciation has in recent years been intensified resulting in the introduction of speaking courses at some institutions, especially private, in the country.

Belonging to such an institution and dealing with a number of consecutive groups of students learning the IPA as a part of an English speaking course, the researcher noticed that all the twenty four IPA symbols for English consonant phonemes are not equally difficult for Bengali speaking Bangladeshi learners of English (BSBLE) to master. The learners were also observed to tend to read the symbols on the basis of their being similar or dissimilar in appearance to the letters of English alphabet.

So the researcher decided to undertake the study to find out if the IPA symbols for English consonant phonemes are equally difficult for BSBLE to master or there exists a hierarchy of difficulty. The other aim was to demarcate the extent to which the learners while reading the symbols rely on the similarity of their outward looks with those of the English letters.

1. REVIEW OF LITERATURE

Pronunciation has been defined as a set of habits of producing meaningful sounds. Humans form these habits by repeating the sounds over and over again. Thus, learning to pronounce a second language requires forming new pronunciation habits and overcoming the interferences of the first language (Connor, 1980; Cook, 1996).

About the importance of good pronunciation Sparkman (1926, pp.227-235) commented eloquently, "A good pronunciation of any language is similar to being well dressed; it is the outward semblance of culture and refinement in matters of speech". But good English pronunciation by a nonnative is no longer a question of mere "refinement in matters of speech": it has become an essential skill for economic development. Yong (2004) predicted that reading and writing skills would no longer be sufficient for the development of the economy and that face to face communication would assume greater importance. Earlier Rivers (1968) and Celce-Murcia (1987) had contended that, in spite of good mastery of vocabulary and grammar, nonnative speakers often fail to communicate orally if their pronunciation is underperformed.

Performance in pronunciation accuracy is subject to the involvement of the participant (Thompson, 1991). It may also be determined by a learner's motivation, sensitivity to accuracy, age and education (Firth, 1992). Another important determinant is the individual's aptitude (Jilka, et al, 2007). To this, Liu (2011) added that mimicry and the ability to monitor greatly influence pronunciation improvement.

On the other hand, a learner's L_1 may jeopardize their progress in pronunciation (Gillette, 1994; Graham, 1994; Pennington, 1994; Flege, 1995; Celce-Murcia et al, 1996; Suomi et al, 2008; Liu, 2011). Another big problem is the remarkable variety of accents. Many students are confused about the differences between accents, and often speak a mixed accent perplexing a native speaker. Enlarging the list of obstacles, Huai (2003) reported that, while learning English pronunciation, learners may face certain psychological and social barriers.

Though Krashen (1985) claimed that pronunciation is acquired naturally, there is a lot of empirical evidence implying that classroom pronunciation teaching can help the learners overcome these barriers and improve their pronunciation. For instance, previous exposure to phonological rules and principles enables the students to assess their own speech (Jones et al, 1994, as cited in Gilakjani, 2012; Saito, 2007). Lintunen (2004) claimed that there is a correlation between pronunciation skills and skills in phonemic transcription. Phonemic transcription is a useful tool in pronunciation teaching especially when the learners are used to a close letter-to-sound correspondence in their L_1 (Varasarin, 2007; Suomi et al, 2008; Por & Fong, 2011). Using the IPA to correct pronunciation is very effective even for low ability university students (Messerklinger, 2009). However, teaching the IPA does not result in native like pronunciation. It raises a sort of awareness which can lead to other activities that focus on pronunciation.

Some other methods have also been offered to pronounce English words based on its letters. But English does not have a pure phonemic orthography (Katamba, 2005). There are 26 letters in the English alphabet which stand for at least 44 different sounds. Another way of dealing with English pronunciation is respelling, which often fails to distinguish the exact individual sounds. Respelling is also less meaningful for EFL learners because of L_1 interferences (Fraser, 1997).

Another solution vouched for by many scholars like Dalton & Seidlhofer (1994) is a contrastive analysis of L_1 and L_2, which would allow us to predict difficulties. But finding such an analysis inadequate, Eckman (as cited in Celce-Murcia et al, 1996) suggested constructing a hierarchy of difficulty for phonological acquisition; the hierarchy might predict not only which sounds learners would have difficulty with, but which problems would be more difficult for a linguistically homogeneous group of learners.

It is worth noting here that under the impact of communicative method the focus of pronunciation teaching has shifted from what is called a narrow approach—concentrating on segmentals—to a broader one that emphasizes aspects of speech beyond the level of the individual sound or suprasegmentals (e.g., Pennington & Richards, 1986; Seidlhofer, 2001; Celce-Murcia et al, 2010; Lane, 2010; Gilakjani, 2012). Comparing these approaches, Derwing et al (1998) favoured the

broad approach. Another study conducted by Derwing & Rossiter (2003) in Canadian ESL context found an emphasis on suprasegmentals as more effective in terms of comprehensibility, accentedness and fluency. However, as the concept includes the simultaneous teaching of accuracy and fluency, the contents of the narrow approach are not abandoned altogether (Celce-Murcia et al, 2010). Recognizing the need for both segmental and suprasegmental training Lane (2010) has talked about a balanced approach.

In the above mentioned theoretical or conceptual framework, teaching the IPA as an initial step towards English pronunciation teaching in Bangladesh could be an opportune innovation. This study is going to help take the appropriate course of action by delineating the hierarchy of difficulty that the symbols pose for BSBLE and by demarcating the extent these learners, while learning them, rely on the resemblance in look of the symbols with English letters.

2. RESEARCH QUESTIONS

The purpose of the present study is to reveal how far BSBLE rely on English letters while reading words in IPA transcription. It also aims to find out if the symbols are equally difficult for the learners or there is a clear hierarchy of difficulty. In other words the present study seeks to answer the following two questions:

a. To what extent BSBLE depend on English letters to read words in IPA transcription?

b. Are the consonant IPA symbols equally difficult for BSBLE?

3. METHODOLOGY

The IPA symbols for the English vowel phonemes were excluded, and so was the symbol /ʒ/ because there is no corresponding consonant sound in Bengali. Thus, twenty three of twenty four English consonant phonemes were used for the study. Besides, the study dealt only with the segmental aspects of pronunciation: supra-segmental aspects were beyond its scope.

3.1 Participants

The participants of the research were one hundred first semester students studying Bachelor of Business Administration (BBA) at a private university in Dhaka, the capital of Bangladesh. Ranging from 17 to 21 years of age and coming from many parts of the country, they had completed their HSC examination within the previous twelve months. It was ensured by means of a questionnaire that Bengali was their first language and no one had any prior knowledge of the IPA symbols. In fact

no such student was found, so no exclusion was required.

The control group (CG) consisting of 27 male and 23 female participants had enrolled to the department for Fall 2012 whereas 37 male and 13 female students coming to the department for Spring 2013 made up the experimental group (EG).

3.2 Instruments

Twenty three minimal pairs were used for the study—each pair containing a different symbol for a different English consonant phoneme. The words were of two sorts—words whose transcriptions use only the symbols which look like English letters (capital or small), and words whose transcriptions use at least one of the symbols which do not look like any English letter. As for the vowel symbols, only two, i.e. /e/ and /ɪ/ were used because they look like the fifth (small) and ninth (capital) letter of the English alphabet.

With the 23 pairs of words two test papers (pre and post) were designed: the first paper contained one word from each of the pairs leaving the other for the second paper.

3.3 Procedures

Before administering the tests, both groups were told about the objectives of the study and specifically ensured that their scores would be used only for research purposes with no effect on their grades at the university. After the pretest, the EG underwent three hours' formal teaching of the IPA symbols (three one-hour classes held at the beginning, in the middle and at the end of the four-month semester). The lessons included introducing the symbols from Oxford Advanced Learners' Dictionary (2010: R45), explaining how the corresponding sounds are produced, and writing in Bengali the pronunciations of common English words in IPA transcription.

Approximately three months after the pretest, the posttest was taken. During the tests the participants were asked to write the pronunciations of the transcribed words in Bengali. The scores of the groups were compared to see if the EG had performed significantly differently in the posttest.

4. DATA ANALYSIS AND FINDINGS

Of the twenty three IPA symbols for English consonant phonemes, sixteen look the same as English letters, either in capital or small form. These symbols caused less trouble for the participants than the remaining seven symbols. The first part of the following analysis deals separately with these two sets of symbols whilst the second part discusses the hierarchy of difficulty that the symbols present for uninitiated or primarily oriented participants.

4.1 Participants' Ability to Read the Symbols

Table 1
Sixteen IPA Symbols and the Groups' Performances in the Tests

Groups and tests	Frequency in percentage (N = 50)			
	Able to read the transcribed words correctly	Able to read only the symbols	Unable to read either the words or even the symbols	Did not attempt at all
EG in the pretest	78	20	2	0
CG in the pretest	77	21	2	0
EG in the posttest	79	18	2	1
CG in the posttest	72	23	4	1

Table 1 shows the pre and posttest performances of the participants with regard to the sixteen symbols that look like letters of English alphabet (/h/, /l/, /m/, /n/, /r/, /d/, /b/, /p/, /s/, t/, /f/, /k/, /z/, /g/, /w/ & /v/). There seem to be no big differences between the groups' performances on the one hand or the tests' on the other. While in the pretest 78% participants of the EG read the transcribed words correctly and 20% of them recognized the symbols, these proportions for the posttest were quite similar, 79% and 18% respectively, indicating no significant change occurring due to the lessons. With no participant refraining from the attempt, the remaining 2% EG participants failed to read the transcribed words or the symbols in the pretest. In the posttest the same percentage of EG participants (2%) could neither read nor recognize the symbols whereas 1% of them did not attempt at all.

The performances by the CG were very similar to those of the EG. In the pretest, 98% participants in total (77% and 21%) came out successfully with 2% being unable to read the symbols. As for their performances in the posttest, 72% read the words correctly while 23% of them could read only the symbols, with the grand total of successes being at 95% which was even 3% lower than that for the pretest. The rest either tried in vain (2%) or desisted from trying (1%).

To sum up, with regard to these sixteen symbols the lessons hardly had any perceptible impacts on the performances of the EG participants in the posttest: the participants' performances were quite similar to their own performances in the pretest as well as those of the CG in their pre and posttests.

Table 2
Seven IPA Symbols and the Groups' Performances in the Tests

Groups and tests	Frequency in percentage (N = 50)			
	Able to read the transcribed words correctly	Able to read only the symbols	Unable to read either the words or even the symbols	Did not attempt at all
EG in the pretest	1	1	94	4
CG in the pretest	1	1	96	2
EG in the posttest	55	6	34	5
CG in the posttest	2	1	90	7

Table 2 shows the groups' performances in the tests in respect of the seven symbols that are unlike English letters either in appearance or in the sound they stand for (/θ/, /dʒ/, /ð/, /ŋ/, /tʃ/, /ʃ/ & /j/). It is easily noticed that except for the EG's performance in the posttest, the other three performances were almost the same, which implies a change brought about by the lessons.

In the pretest both the groups acted almost in the same way: an equal 98% of the participants either failed to read the words or did not try at all. This percentage was nearly equal to the CG's performance in the posttest (97%). However, more participants tended to refrain from attempting in the posttest. In comparison to 4% in the pretest, 5% of the EG and in comparison to 2% in the pretest, 7% of the CG did not attempt at all.

The performance of the EG in the posttest, in contrast, was a quite big surprise. There was a dramatic rise in the participants' ability to read the transcribed words, with a big 55% of them reading the words correctly. In addition, 6% of them were able to recognize the symbols. Although 5% of the participants did not attempt and a huge 34% of them tried in vain, the overall success rate (61%) was a strong argument for the lessons on IPA that the EG had.

4.2 Hierarchy of the IPA Consonant Symbols in Terms of Difficulty

As with the Chinese students learning English pronunciation (Liu, 2011), there also exists a hierarchy of difficulty for Bengali speaking learners of the IPA symbols for English consonants.

The hierarchy before the lessons: The participants comprising the CG never underwent any lesson dealing with the IPAs, meaning their pre and posttest performances were based solely on their knowledge of English letters and similarity in look between the letters and the symbols. The same was the case with the participants of the EG in the pretest. Figure 1, based on the total number of failures on the part of the participants without any prior orientation in the IPA, shows the hierarchy of the symbols in terms of their level of difficulty for BSBLE approaching the IPA symbols for the English consonant phonemes.
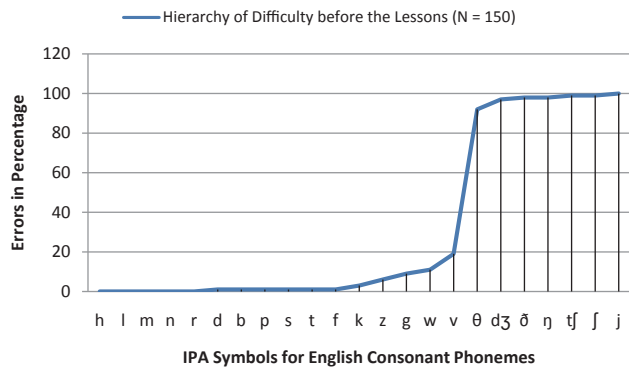

Hierarchy of Difficulty before the Lessons (N = 150)

Figure 1
Hierarchy of IPA Symbols for English Consonant Phonemes before the Lessons

As is seen in Figure 1, the sixteen symbols that look like English letters caused less trouble for the participants than the seven others that do not. Of the 16, /h/, /l/, /m/, /n/ and /r/ caused no problem for the participants whereas the percentages for /d/, /b/, /p/, /s/, /t/ and / f/ were an equal 1%. The hardest of these symbols proved to be /v/—19% participants could not read it successfully. With 11% failures, /w/ stood the second hardest while the percentages of failures for /g/, /z/ and / k/ were 9%, 6% and 3%, respectively.

Of the seven symbols which do not look like any English letters or which stand for a completely unlikely sound, the least troublesome was /θ/; the percentage of participants failing to read it was 92%. This rate for /dʒ/ was 97% whilst the percentages for /ð/ and / ŋ / were an equal 98%. While the same percentage of participants (99%) failed to read /tʃ/ and /ʃ/, /j/ turned out to be the hardest with no participant reading it correctly.

The hierarchy after the lessons: Figure 2 below shows the level of difficulty that the IPA symbols for English consonant phonemes pose for their learners who have undergone a three hours' primary orientation in them.
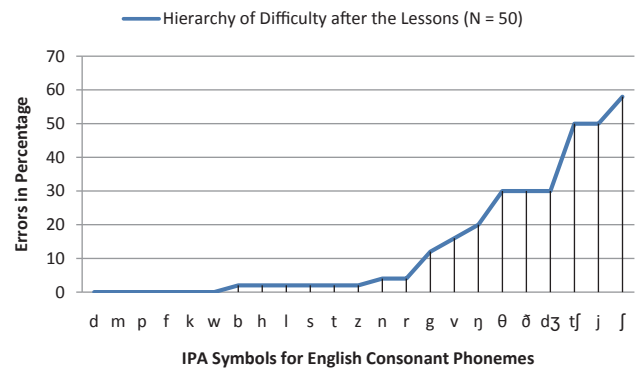

Hierarchy of Difficulty after the Lessons (N = 50)

Figure 2
Hierarchy of IPA Symbols for English Consonant Phonemes after the Lessons

As with the participants with absolutely no knowledge of the IPAs, the most difficult symbols for EG after the lessons were still those which are either different in appearance from English letters or represent an unlikely sound (/ŋ/, /θ/, /ð/, /dʒ/, /tʃ/, /ʃ/ & /j/). However, their posttest performance was significantly better and the sequence of the seven symbols stood in a different order.

The least troublesome among the seven dissimilar symbols was /ŋ/; the percentage of participants failing to read it was 20%. This rate for /θ/, /ð/ and /dʒ/ were an equal 30% while half of the participants were unable to read /tʃ/ and /j/. But the most difficult symbol was /ʃ /; as many as 58% participants failed to read it correctly.

As for the easier 16 symbols, /b/, /m/, /p/, /f/, /k/ and/ w/ caused no problem for the participants whereas the percentages for /b/, /h/, /l/, /s/, /t/and /z/were an equal 2%. The hardest symbol among these proved to be /v/:16% participants could not read it successfully. With 12% failures, /g/ stood the second hardest while an equal 4% failed to recognize/n/ and /r/.

5. DISCUSSION

The analysis of the data provided by the tests reveals that BSBLE heavily rely on their knowledge of English letters while reading words in IPA transcription. On average, about 97% of the participants without any knowledge of the IPA succeeded in reading the sixteen symbols similar in appearance to English letters while this percentage for the symbols unlike English letters was only around 2% proving that the performances of the participants were almost entirely controlled by the similarity or dissimilarity of the symbols to English letters. The performances of the participants after they had been

oriented in the symbols also showed a similar trend. Although their performances with respect to the seven symbols unlike English letters improved greatly (62%), those in respect of the sixteen symbols similar in look to English letters did not show any different tendency: the same (97%) was the success rate.

Therefore, it can be argued that the participants were able to read sixteen of the symbols with 97% accuracy only because they look like English letters, and because of the same reason, the other seven were difficult for them. So the challenge that BSBLE and their teachers need to exert more efforts to meet is to develop appropriate habits required to read the symbols that do not look like English letters or that stand for an unlikely sound.

In answer to the other research question, whether the IPA symbols for English consonant phonemes are all equally problematic for BSBLE, it can easily be claimed that there does exist a hierarchy of difficulty. However, it should also be noted that the symbols fall in a different order of difficulty before and after the introductory lessons on them (see Figure 1 & 2). In sum, the sixteen symbols like English letters hardly caused any problem for the learners regardless of their orientation in IPA or not whereas the seven symbols unlike English letters remained in both cases at the top of the hierarchy of difficulty implying that they require special attention from both the BSBLE and their teachers.

6. PEDAGOGICAL IMPLICATIONS

As Bengali is a syllable timed language, it is natural for BSBLE to pronounce English words depending on their spellings, which is a dangerous habit barring the development of English pronunciation in the proper way. The earlier the learners become aware of the danger and develop the habit of relying on IPA transcriptions given in the dictionaries, the better English pronunciation will be the outcome. The present study will be a great help for the teachers who teach the IPA symbols to Bengali learners of English. The hierarchies of difficulty, before and after the introduction of the symbols, will help them to decide which symbol is to be given more effort and which less and which not at all. The study will also help them realize Bengali learners' behaviours when they approach the IPA symbols and why some of the symbols cause more trouble for the learners than others.

7. LIMITATIONS OF THE STUDY

As has already been stated, the study dealt only with the IPA symbols for English consonant phonemes. Yet the phoneme /ʒ/ was excluded since there is no equivalent sound in Bengali and in consequence cannot be written using Bengali letters. The words for the study were all monosyllabic so as to avoid the question of stress: the suprasegmentals were beyond the scope of the present study. Besides, students coming from various parts of Bangladesh seem to have varying levels of difficulty with some particular symbols and their corresponding sounds. For example, learners from the southern part of the country tended to pronounce /v/ as /b/. But this study could not alter its course half way through and left these issues to be explored in future.

8. CONCLUSION AND RECOMMENDATIONS

Good English pronunciation, as has already been stated above, is much more than mere "refinement in matters of speech". It is now an effective means of cultural, educational and economic achievements. Contrary to previously established concepts that good mastery of vocabulary and grammar is enough for a learner, intelligible pronunciation is growing in importance for efficient oral communication because poor pronunciation can incur anxiety, discrimination and communication breakdowns (Rivers, 1968; Celce-Murcia, 1987; Gilakjani, 2012; Morley, 1998). On the other hand, methods of teaching pronunciation based on spelling have been proved to be seriously faulty (Katamba, 2005). Similar is the case with the method of respelling (Fraser, 1997). The best solution ever offered in this regard is by the IPA. It reduces the ambiguities of pronunciation learning and helps fight the negative influence of the first language too (Suomi et al, 2008).

But in Bangladesh where the students learn English compulsorily for twelve years, the teaching of speaking and listening components, let alone the IPA, is utterly ignored (see An audit of current materials for teaching English in Bangladesh). The exams are completely devoid of any mechanism to test the candidates' ability to speak the language or comprehend spoken English. In consequence, English learners in Bangladesh are unbelievably negligent towards pronunciation accuracy: the data collected by the questionnaire showed that no participant had ever gone through the IPA or even heard of it. The following recommendations are made for urgent implementation:

a. Components of spoken English should be incorporated in the examinations.

b Massive awareness-raising tasks on the part of the education ministry can be undertaken.

c. Teachers equipped with training in phonetics can introduce the IPA as a part of their class materials.

d. Students should be taught and encouraged to use good English to English dictionaries.

It should also be remembered that despite pronunciation being acknowledged as very important, it is neglected in classrooms throughout the whole world. Many teachers are reluctant to teach pronunciation

(Tergujeff, 2012; Kawale, 2012). One of the reasons why English pronunciation is neglected or ignored is that the teachers do not know about the English pronunciation teaching strategies or techniques (Wei, 2006 as cited in Gilakjani, 2012). It is also caused by the teachers themselves being very bad at English pronunciation. Lack of authentic, context-rich activities is another problem (Kawale, 2012).

Therefore, before launching any project targeting English pronunciation for BSBLE, it is advisable to analyze and learn from the contexts around the world where similar missions have been in action, e.g. Russia, Finland, Japan, Thailand, Hong Kong, etc. As an illustration, EFL textbooks emphasizing phonetic training have been introduced for high school students in Maharashtra, India and teachers are being trained there to conduct pronunciation classes (Kawale, 2012). The contexts in Bangladesh and Maharashtra are similar in many ways. Both Bengali and Marathi are syllable-timed languages. The classes are very large and the teachers lack in motivation as well as training. The absence of any spoken component in the examination has the same backwash effects on teaching and learning of pronunciation of English. So, some of the following suggestions by Kawale could be of great use:

a. The teaching of English pronunciation should be taken seriously by the teachers.

b. Teachers should be trained properly in the area of phonology so that they can help their students improve their pronunciation.

c. Specific problems caused by L_1 have to be identified and taken care of with special attention.

d. Particular problems of some local students have also to be addressed properly.

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