VOWEL EPENTHESIS IN PAKISTANI ENGLISH

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ABSTRACT

This paper attempts to find out the epenthesis patterns in Pakistani English. It also focuses on the phonological environments in which epenthesis takes place. For this purpose data has been collected from Punjabi speakers of English language. We have studied epenthesis at initial, medial and final positions as well as before syllable consonants. Speech pictures and spectrograms have been used to prove the absence or presence of vowel insertion between consonant clusters, syllable consonants and in syllable onsets. The research proves that epenthesis is a regular feature of Pakistani English and it follows certain patterns. The present study is useful as it scientifically proves the claims of various researchers about epenthesis being a regular feature of Pakistani English. It bolsters perception based opinions with the help of instrumental study and thus validates the previous claims.

Keywords: Epenthesis, Pakistani English, acoustics, instrumental study,

INTRODUCTION

In the world of today, English has become a lingua franca and one of the most frequently used languages for communication at international level. Due to colonial influences (Hickey, 2004) or the need to compete at international level, English has attracted users and communities all over the world. Graddol (2006) has predicted that in the coming ten to fifteen years, the number of second language learners of English will increase to two billion. Already with “three out of four” (Crystal, 2004, p.23) non-native users, English is no more claimed to be the language of the Americans or the British only. Kachru (1990) has divided English speaking or using countries into three circles on the basis of the role played by English in these countries. But the inner circle countries are no more the passive users of English language. They bring their own repertoire of linguistic habits and structures which they transfer to the English language. Hence the term World Englishes has been used since 1980s (Erling, 2006) to denote this indigenous character of English. Now there are recognized varieties of English with a flavor of local language and native features (Erling, 2006) added to them. There are labels for such varieties like Singaporean English, Polish English, Thailand English and Hong-Kong English etc. And there is a broad umbrella term South Asian English (Crystal, 2004) which is used for all varieties of English used in India, Pakistan, Bangladesh and the rest of South Asia. Hickey categorizes Pakistani English with the South Asian variety as many of its distinct features are found in Pakistani English. These distinct indigenous features distinguish Pakistani English from its western counterparts, at the same time bringing it in line with the Asian varieties.

All these varieties of English differ from each other as well as from the British and American varieties in terms of lexical, grammatical (Crystal, 2004) and phonological features. Kachru (1992) differentiates South Asian English from other varieties on theses three levels and further discusses the subdivisions and
micro level differences. However, here we are concerned with only the phonological level and aim to focus the phonological differences that mark Pakistani English as a variety distinct from the array of “New Englishes” (Crystal, 2003, p.147).

LITERATURE REVIEW & STATEMENT of the PROBLEM

It has been argued by many researchers that when the L2 users of a language are faced with the consonant clusters that are illegal in their mother tongue, they respond mainly in two ways. Either they delete the offending consonant in the cluster or they insert a vowel to break the cluster and thus make it tolerable according to the grammar of their native language (Abrahamsson, 1999; Davidson, 2003; Hall, 2006; Iverson, Ekanayake, Hamann, Sennema & Evans, 2008; Penner, 2009). The insertion is termed as epenthesis which is further divided into prosthesis and anaptyxis on the basis of its position. Abrahamsson describes prosthesis as insertion before the cluster and anaptyxis is described as insertion to break consonant clusters. The use of epenthesis results in the resyllabification of illegal consonant clusters according to the phonological grammar of the users’ native language. Thus this phenomenon is studied in the background of mother tongue interference in the perception and production of L2 structures.

Davidson (2003) has studied the nature of epenthesis with the help of gestural analysis. She discusses two types of epenthetic vowel: lexical and epenthetic. Both these insertions are distinguished on the basis of gestural presentation. She establishes that epenthetic schwa occurs when the neighbouring sounds fail to overlap and this leads to the perception of a vocoid between them. On the other hand, lexical schwa does have its own gesture and canonical representation. But this distinction is based on gestural analysis and is difficult to be ascertained in acoustic terms.

A further distinction has been made by Hall (2006) who divides inserted vowels into epenthetic and intrusive. According to her, inserted vowels are optional and do not repair the illegal structures. They are also influenced by their context and may be a copy of neighbouring vowels. Whereas the epenthetic vowel is the exact opposite: it has a fixed quality, is independent of the context and it is used to repair the marked structures. Hall has also discussed the issue of syllabicity with reference to epenthetic and intrusive vowels. Yet the issue is far from being resolved as epenthetic vowel behaves differently in every language.

The nature of epenthetic vowel has also been discussed from auditory point of view. Iverson, Ekanayake, Hamann, Sennema and Evans (2008) have conducted a study to investigate the role of perceptual interference in learning L2 phonemes. The participants, who were native speakers of Sinhala, Dutch and German, performed various tests to identify /v, w/ phonemes in English. The results of their study indicate that the impact of mother tongue is strong in L2 learning and when the phoneme inventory of speakers’ L1 does not carry a certain phoneme, it is difficult for the users to perceive it accurately.

Penner (2009) has also identified that an important reason of Japanese users’ failure to learn English is the disparity in their L1 and L2 sound categories. He also claims that this disparity results in difficulty to identify L2 sounds, consonant clusters and word boundaries. Penner suggests that this difficulty may be resolved by adjusting foreign sounds in the native phoneme category and by perceiving a vowel between those consonant clusters which are not legal in the users’ L1. The study conducted by Dupoux, Pallier, Kakehi & Mehler (2001) also establishes Penner’s claim about the insertion of epenthetic vowel when Japanese users of English are presented with Japanese illegal/English legal consonant clusters. The results of their research prove that illegal consonant are repaired with the help of epenthesis or the matching of phonetic patterns between L1 and L2.

Abrahamsson (1999) has discussed the importance of context in the use of epenthesis by Spanish users of English as a second language. He has proved that the preceding vocalic segment may increase the frequency of epenthesis whereas a preceding consonantal segment may decrease this possibility. Moreover, word boundary plays a neutral role in the occurrence of epenthesis. So the grammar and the phonotactic constraints of L1 play a vital role in the acquisition of L2 structures and their usage. The present study also aims to explore the influence of L1 on Punjabi speakers’ use of English in Pakistan.
English language enjoys a special status in Pakistan. It is a vastly used language in different regions and mainly occupies L2 status here (Lewis, 2009). English is the official language and the medium of education right from intermediate to graduate and post graduate level (Abbas, Aslam & Rana, 2011). It is the language of science and technology in Pakistan and extensively favored by media (Hickey, 2004; Khan and Bukhari, 2011). It is a tool for social mobility, a mark of identity and the basic requirement for securing high paying jobs.

Pakistani English is a variety distinct from other varieties at many linguistic levels. Hickey (2004) discusses its marked phonological, grammatical and lexical features which are different from other varieties of English. Kachru (1992) also discusses these “deviations” on phonetic/phonological level and gives three examples of phonological deviations. Raza (2008) draws on Kachru’s study to hypothesize that epenthesis (insertion of vowel sound) is a regular feature of Pakistani English and cites Rahman (1990) to validate his hypothesis. He mentions two forms of epenthesis, firstly consonant clusters in the onset position are avoided by the insertion of a weak vowel and secondly a vowel is added at initial word boundary position and thus the syllable structure is changed. Mahboob and Ahmar (2004) have also discussed the same phenomenon in their detailed study of Pakistani English. Hickey also refers to the same phenomenon and denotes its occurrence to the influence of Urdu and Punjabi language on Pakistani English. But these are mostly conjectures and not research based opinions. Among the numerous repair strategies available to the users of L2, epenthesis is believed to be the most commonly used strategy to make illegal consonant clusters licit in the grammar of users’ native language (Davidson, 2003). That is why we decided to study epenthesis as a repair strategy used by Punjabi L1 users of English Pakistan. So the present paper aims to find out if epenthesis is found in Pakistani English spoken by Punjabi speakers of Faisalabad, Pakistan. Our hypothesis is that:

- Epenthesis is a feature of Pakistani English.

And this leads us to find out the phonological environment where epenthesis takes place in Pakistani English.

METHODOLOGY

To investigate our hypothesis we need to determine first if epenthesis is a feature of Pakistani English. If it is so, we need to find out the phonological environment of epenthesis. For that purpose we have collected the data of thirty monosyllabic and disyllabic words from twenty speakers. The monosyllabic words are chosen from Oxford English Dictionary, 7th Edition’s list of “The Oxford 3000” most frequent words. However disyllabic words are chosen randomly on the discretion of the researchers. It is seen that the words are fairly common and frequently used by Pakistani speakers of English.

The population sample includes ten male and ten female graduate and post graduate students. All of them are Punjabi L1 speakers and reside in Faisalabad, Pakistan.

The participants have been asked to pronounce words in a natural manner. Their speech samples have been recorded on Compaq nc6320 laptop computer using EarphoneMic. They have been guided about the whole recording procedure and the researchers demonstrated the process of recording to the subjects. The researchers have been careful to minimize the element of noise. But it has not been eliminated by using technical means. So there is a possibility of noise in the sound recordings.

These recordings are examined using PRAAT software and each word is individually studied to check if insertion has taken place. The results have been reanalyzed and matched again to minimize the possibility of errors. The findings are discussed in the next section.

The results of our study have been discussed with reference to the phonotactic constraints of Urdu and Punjabi as these are the majority languages of Pakistan. Urdu here is the national language and Punjabi is
one of the widely used languages with 60, 600, 000 speakers (Ethnologue, 2009). Moreover, our participants are all Punjabi L1 speakers and when the phonotactic constraints of their mother tongue clash with those of English, they use certain strategies to repair this clash. We here are concerned with only one repair, that is epenthesis.

DATA ANALYSIS

The epenthesis in Pakistani English has been analysed at four positions: word initial, between consonant clusters at word initial and final position, before syllable consonants and at the word boundary. The findings of our research are given below:

- Irregular insertion patterns have been detected at the word initial position.
- The insertion in consonant clusters at initial and final position is found and it follows a systematic pattern.
- Speakers insert short vowel sound before syllable consonants.
- Vowel insertion takes place at word boundary.
- There is no gender based difference in insertion pattern.

DISCUSSION

1.1 Insertion at Initial Position

Punjabi allows two consonants at the onset position in a syllable (Kabir, 2000). So it has been explored if this phonotactic constraint influences syllabification in Pakistani English. The result shows that eighty percent speakers do not insert a vowel sound at initial position. In the spectrogram of the word “black” as shown in figure 1, we can see that no insertion takes place in the first example but a vowel has been inserted in the second spectrogram of the word “support” (fig. 2). Its duration shows that it is a short vowel and the intensity proves that it is weak and lax. We have found that insertion at onset position is rare in Pakistani English. And when it does take place it is random and irregular. Moreover the phonotactic constraints of Punjabi do not influence the syllable structure of Pakistani English as far as the initial consonant clusters are concerned.

1.2 Insertion in Consonant Clusters

There are some examples of insertion at onset position in the consonant cluster in particular phonological environment. Fleischhacker (2005) claims that ‘st’ and ‘sr’ clusters may be repaired by inserting the vowel either “before the clusters or inside it” (p. 60). However, in our study, it appears that when a syllable starts with /s/ and is followed by a voiceless stop and /r/ as in words “string, spring”, eighty percent participants insert a short weak vowel between them. The short duration of the inserted vowel asserts that the vowel is lax in quality. This insertion may be caused due to the phonotactic constraints of Urdu and Punjabi as Lambertz, Dupoux and Gout (2000) claim that the phonemic inventory of a language affects the way users perceive the sounds of non native languages. Since both Punjabi and Urdu languages do not allow more than two consonants in the onset position, it appears to be a plausible reason for epenthesis. This phenomenon can be formulated in the following way:

\[ \emptyset \rightarrow [+\text{schwa}] / [+s] \quad \rightarrow \left[ -\text{voice} \right] \right] [+r] + \text{stop} \]

The spectrogram in figure 3 shows the insertion in the consonant cluster of the word ‘string’. But such insertions may take place in other phonological environments as well. The spectrogram of the word
“cream” in fig. 4 shows vowel insertion in the consonant cluster. So the above mentioned formula has to be generalized as:

2. \( \emptyset \rightarrow [+\text{schwa}] / \left( +\text{con} \right) - \left( +\text{con} \right) \)

1.3 Insertion before Syllable Consonants

In the analysis of syllabic consonants, it was discovered that ninety percent speakers insert a short weak vowel between onset and the syllable consonant. It is a prominent phenomenon and needs detailed explanation. We propose that this insertion occurs as a consequence of mother tongue interference. There is no concept of syllable consonants in Punjabi as it must have a vowel at the peak of a syllable. Moreover Punjabi is an abugida language as each consonant in Punjabi is accompanied by an inherent vowel (Goyal & Lehal, 2008). When these constraints are unconsciously applied by Punjabi speakers to the English syllable consonants, it results in epenthesis of short weak vowel. The spectrogram of the word “little” (fig. 5) shows vowel insertion of a short vowel.

1.4 Vowel Insertion at Word Boundary

A tendency to insert short vowel at the word boundary is also noticed. It is mostly evident when voiceless stops or nasals occur at word boundary in coda position. It can be represented thus:

3. \( \emptyset \rightarrow [+\text{schwa}] / -\text{voice} \ # \ # \) 

4. \( \emptyset \rightarrow [+\text{schwa}] / +\text{nasal} \ # \ # \)

The spectrogram in figure 6 shows this insertion. However this area needs more research to further specify sound patterns and environments which are associated with vowel insertion at word boundary.

CONCLUSION

This research shows that epenthesis is a prominent feature of Pakistani English. It occurs at all positions. It can be at onset and coda positions as well as at word boundary in certain circumstances. But the most regular pattern of insertion is before syllable consonants. And the short cardinal vowel is inserted by the participants. The vowel quality is lax as indicated by the short duration of the vowel. Hall (2009) describes epenthetic vowel, as opposed to inserted vowel, as independent of speech rate and a source to repair marked structures in a language. The vowel inserted by Punjabi users of English in Pakistan has both these qualities. However a detailed study needs to be conducted to determine the precise effect of speech rate in the occurrence of epenthesis. Epenthesis in Pakistani English results in resyllabification of English syllable templates. Yet a more detailed analysis is needed to find out the resyllabification patterns and their phonological environments in Pakistani English.
References


Appendix A

Figure 1. Spectrogram of the word ‘black’

Figure 2. Spectrogram of the word ‘sport’

Figure 3. Spectrogram of the word ‘string’
Figure 4. Spectrogram of the word ‘cream’

Figure 5. Spectrogram of the word ‘little’
Figure 6. Spectrogram of the word ‘plant’