

An Analysis of the Vowel Sounds of Pakistani English

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Abstract

English in Pakistan has gone through an evolutionary process over the last century. The stage of deviations, inter-language and deficient varieties are over, and Pakistani English (PE) has, now assumed its independent entity among other non-native varieties. This study investigates the vowel sounds specific to the Pakistani variety of English and for this purpose, a sample population comprising fifty subjects including both males and females between the ages of eighteen to twenty five, belonging to Lahore, was randomly selected to obtain speech samples based on lists prepared by the researcher. All speakers were ethnically Punjabis who spoke Urdu at home and in their workplace or institution. Vowels and diphthong phonemes were studied from the recordings obtained. The results of the study showed that the Pakistani variety of English has restructured the sound system of English to suit its own sound system. For similar sounds, the pronunciation is the same as in Received Pronunciation (RP) but for dissimilar sounds, near-equivalents from Urdu have been substituted. The overall pattern of pronunciation emerging from the study points strongly towards the existence of an educated Pakistani accent. It is closer to the British RP than any other native English accent. However, there are certain differences in the segmental and non-segmental features of pronunciation which need to be accepted as the distinctive characteristics of this variety.

Key Words: Non-native variety; Received Pronunciation; vowel phonemes; pronunciation.

Introduction

The educated variety of Pakistani English, has evolved over a period of prolonged use in the academic, administrative, legal, commercial and diplomatic spheres of national life in Pakistan.(Haque,R,A:2003). Some unwritten, indistinct norms regarding pronunciation existed, but were never explicitly stated (Saleemi,A,P: 1985). This fact usually became obvious at the time of interviews and selection tests when a basic expectation was conformity not to the RP standards, but to the locally accepted norms; those not conforming to ‘the norms’ were marginalized. Baumgardner (1989) maintains that Pakistani English has developed its own linguistic identity and culture that does not make it inferior to British Standard English. Rahman (1990) who investigated the sociolinguistic variation in Pakistani English with a focus on phonology, syntax, morphology and lexis, called for the need for a published and easily available description of Pakistani English as an institutionalized non-native variety. Pakistani English has now established its own linguistic identity and justification with its distinct phonological features, syntactic differences and culture-specific lexicon.

One of the major aspects of phonological features of new English varieties is the restructuring of vowels. There is a strong tendency in non-native varieties to restructure the sounds of native English to suit their purpose. Consonants exhibit less restructuring as compared to vowels. Platt et al (1984) give the following general tendencies which are shared by some or all of the new varieties:

- A tendency to shorten vowel sounds as in words like ‘purse’, the /ɜ:/ is sometimes replaced by /ʌ/.
- A lack of distinction between long and short vowels e.g. in ‘genetic’, the /e:/ is substituted by /æ/.
- A tendency to replace the central vowels with either front or back vowels as in ‘vehicle’, the /ə/ is replaced by /i/.
- A tendency to shorten diphthongs and to leave out the second element in a diphthong e.g. in ‘gate’, /eɪ/ is pronounced as a monophthong, /e:/.

Such restructuring of vowels can also be found in the Pakistani variety. /e/ is pronounced as /æ/.as in ‘education’,/ædʒukeɪʃən/. The schwa is made longer e.g. ‘sofa’ is not pronounced with a schwa in the final position but with an /ɑ/. The ‘bird’ vowel, /ɜ:/ is substituted by /ʌr/.

The aim of this article is to investigate and establish the distinctive phonological features of the vowel sounds of Pakistani English. The overall individual performance of the subjects in the present study pointed towards a pattern of pronunciation generally used by the educated Pakistani speakers, thus giving further strength to the hypothesis of the existence of educated Pakistani English as a speech form.

Research Methodology

Sampling

A sample population comprising fifty students including both males and females between the ages of eighteen to twenty five, belonging to Lahore, was selected. The sampling design selected for this study was multi-stage cluster sampling. The present study deals with the spoken English of educated young persons with at least Higher Secondary School education so a list of leading Science and Arts colleges and universities was taken and out of these, thirteen colleges and university departments were randomly selected. From these institutions fifty students which included twenty-three girls and twenty-seven boys, were sampled.

Selection/sampling bias

Sampling bias was kept into account when defining the inclusion and exclusion criteria for the sample. Random sampling was done. The research was designed to be multi-centric, i.e. a number of educational institutions were chosen as opposed to a sample from one institution, in order to prevent selection bias. Further, in each institution a random sample of students was taken. Hence randomization of sample was done at two steps. The researcher's personal perception about pronunciation and experience was not allowed to interfere with the interpretation of results. At each step absolute objectivity was maintained to avoid any bias in analysis.

Data Collection Instruments

Questionnaires word list Structured questionnaires were given to the sample population to get the demographic data as well as the opinions and preferences of the subjects regarding the different varieties of language in use. The total number of variables included age, gender, and medium of education, mother tongue, parents' education, socio-economic status of the family and the students' priority and importance of spoken English in the academic and professional environment within Lahore.

The responses to questions 1 to 10 were quantified while responses to questions 11 to 14 which were of a qualitative nature were presented in the form of a summary. Most of the students were cooperative. However, they lacked awareness regarding the different varieties of English. They did not seem to know which particular variety of English they themselves spoke. A majority believed that they were using a British accent when actually they were using a typically local variety of pronunciation. The preferred accent by majority of the subjects was British while the remaining subjects had American and Pakistani accents as their preferred accents. Another point worth noticing was ignorance on behalf of some of the students about the importance of studying English and their reason for studying it.

The data thus collected was analyzed using SPSS 13.0 (Statistical Package for Social Sciences). The nature of research was quantitative.

Word lists comprising common areas of difficulty were made. These included commonly mispronounced vowel sounds. Samples of their spoken English were recorded using these word lists from each of the fifty units of population. Pronunciation analysis was done using isolated words in which one vowel sound was observed in each of the words in the list.

Analysis of Results

Recordings of the spoken English of the sample population were made using a total of seventeen words with special emphasis on vowel sounds. The sounds produced by more than fifty percent of the sample would be treated as representing the speech of educated Pakistani English. The pronunciation of twelve vowel sounds was observed out of which four vowels i.e. /ɪ/, /i/, /æ/ and /u/ are pronounced according to RP. The analysis of the remaining vowel sounds which generally pose problems for Pakistani speakers has been given below:

Analysis of Vowel Sounds

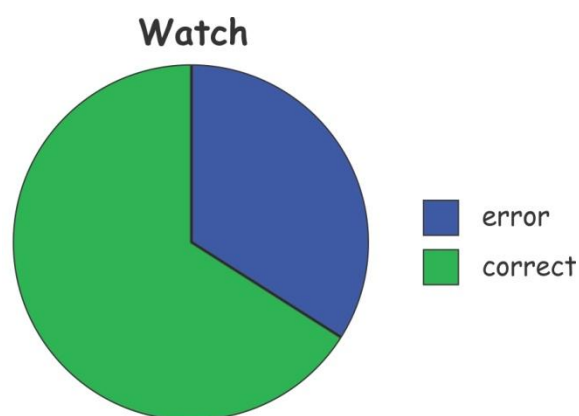
3.1. Analysis of /ɒ/ in watch: /wɒtʃ/

Table1

Frequency table of 'watch'

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Error	17	34.0	34.0	34.0
	Correct	33	66.0	66.0	100.0
	Total	50	100.0	100.0	

Figure 1: Pie Graph Showing the Responses of 'watch'



In this word, the pronunciation of the open back vowel /ɒ/ was observed. 66% produced the vowel sound correctly while 34% were unable to pronounce it correctly. They replaced it with back open /ɑ/ vowel.

3.2. Analysis of /ʊ/ in wool: /wʊl/

Table 2

Frequency table of 'wool'

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Error	20	40.0	40.0	40.0
	variation in error	2	4.0	4.0	44.0
	Correct	28	56.0	56.0	100.0
	Total	50	100.0	100.0	

Figure 2: Pie Graph Showing the Responses of 'wool'

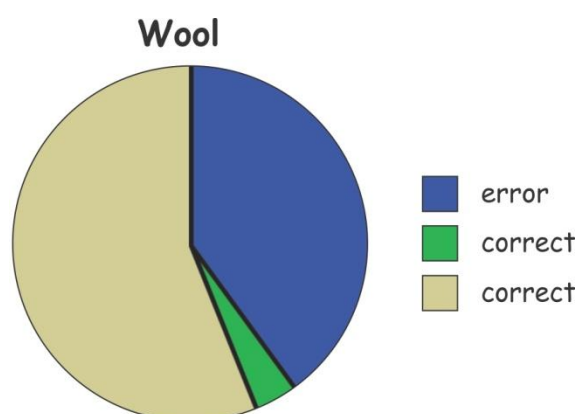


Figure 2: Pie-chart for 'wool'

Fifty six percent of the total number of subjects produced this sound correctly.40% mispronounced this vowel sound by substituting it with the long rounded back vowel,/u/.4% produced a variation in error.

3.3. Analysis of /ɔ/ in record: /r e k ɔ d/

Table 3

Frequency table of 'record'

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Error	4	8.0	8.0	8.0
	variation in error	16	32.0	32.0	40.0
	Correct	30	60.0	60.0	100.0
	Total	50	100.0	100.0	

Figure 3: Pie Graph Showing the Responses of 'record'

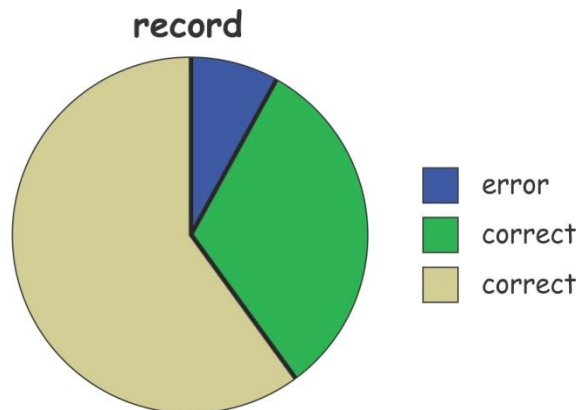


Figure3: Pie-chart for 'record'

Out of a total population of fifty subjects, 30 i.e. 60% of the respondents produced this sound correctly, 32% articulated the /r/ sound in the middle of the word while 8% could not produce the sound correctly.

3.4. Analysis of /e/ in genetic: / ɔ̃ enet ɪ k/

Table 4 –Frequency Table of ‘genetic’

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Frequency table of ‘genetic’

	frequency	Percent	Valid Percent	Cumulative Percent
Valid error	17	34.0	34.0	34.0
correct	33	66.0	66.0	100.0
Total	50	100.0	100.0	

Figure 4: Pie Graph Showing the Responses of ‘genetic’

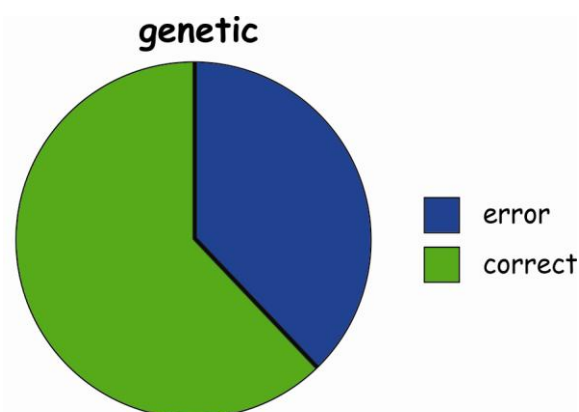


Figure 4: Pie-chart for 'genetic'

62% of the respondents pronounced this vowel correctly while 38% pronounced it incorrectly by replacing the second vowel /e/ with /æ/.

3.5. Analysis of / ɪ / in /women: /wɪ m ɪ n/

Table 5 –Frequency Table of ‘women’

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Frequency table of ‘women’

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid error	19	38.0	38.0	38.0
correct	31	62.0	62.0	100.0
Total	50	100.0	100.0	

Figure 5: Pie Graph Showing the Responses of ‘women’

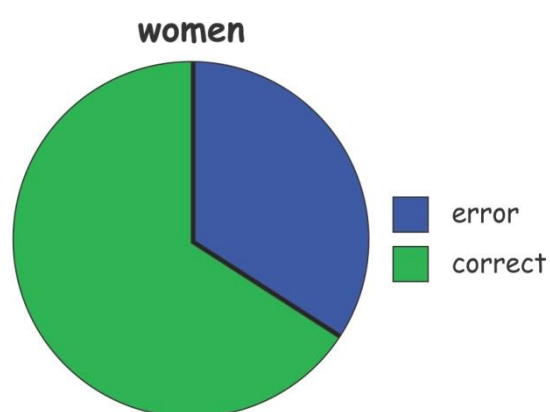


Figure 5: Pie-chart for 'women'

66% of the total respondents pronounced the vowel, /i/, correctly whereas 34% of them substituted it with /ʊ/ thus mispronouncing it.

3.6. Analysis of / ə / in vehicle: / vɪ ə kl/

Table 6 –Frequency Table of ‘vehicle’

Table 6

Frequency table of ‘vehicle’

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Error	28	56.0	56.0	56.0
Correct	22	44.0	44.0	100.0
Total	50	100.0	100.0	

Figure 6: Pie Graph Showing the Responses of ‘vehicle’

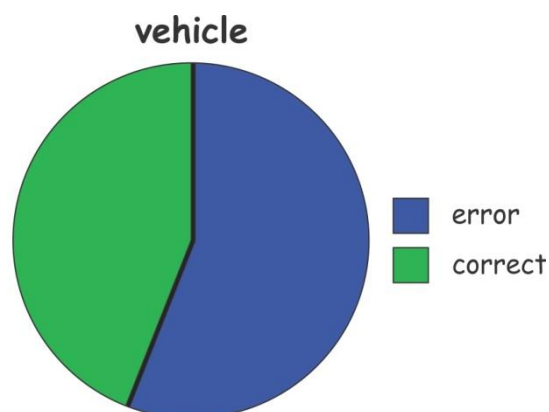


Figure 6: Pie-chart for 'vehicle'

Less than 50% of the subjects i.e. 44% were able to pronounce this word correctly. 56% pronounced it incorrectly by sounding the /h/ in the middle of the word and stressing it strongly. The correct pronunciation is /vɪəkl/.

3.7. Analysis of / ə / in apparent: / ə pær ənt/

Table 7 –Frequency Table of ‘apparent’

Table 7

Frequency table of ‘apparent’

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Error	19	38.0	38.0	38.0
variation in error	4	8.0	8.0	46.0
Correct	27	54.0	54.0	100.0
Total	50	100.0	100.0	

Figure 7: Pie Graph Showing the Responses of ‘apparent’

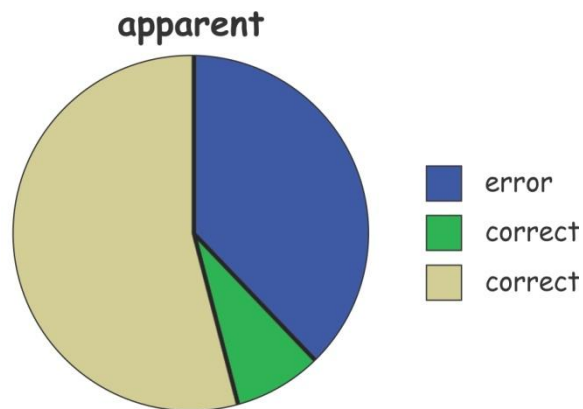


Figure 7: Pie-chart for 'apparent'

54% of the respondents pronounced the word correctly with schwa at the beginning of the word. 38% replaced the schwa with /æ/ while 8% pronounced it incorrectly.

3.8. Analysis of /ɔ/ in lawyer: /lɔtə/

Table 8

Frequency table of 'lawyer'

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Error	1	2.0	2.0	2.0
variation in error	24	48.0	48.0	50.0
Correct	25	50.0	50.0	100.0
Total	50	100.0	100.0	

Figure 8: Pie Graph Showing the Responses of 'lawyer'

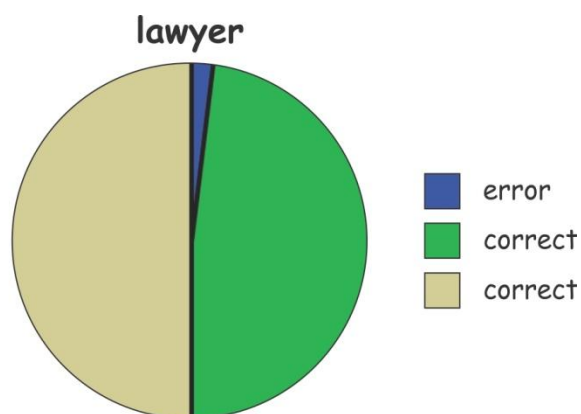


Figure 8: Pie-chart for 'lawyer'

Half of the total number of subjects i.e. 50% pronounced this sound of double vowels or diphthong correctly. 48% had a variation in error by producing the /r/ sound at the end of the word while 2% substituted the /ɔ/ with a /ɑ/ sound.

Table 9

Vowels that need some restructuring according to the vowel system of Urdu.

Vowel	Description	Example
e	Mid-front short vowel	Met, bed
æ	Open front short vowel	Hat, man
ɒ	Half-open to open short back vowel	Hot, job
ɜ	Half-close central long vowel	Burn, bird
ə	Half-open central short vowel	upper

Discussion

The Phoneme Inventory of Pakistani English Vowels

Pakistani English has developed its own identity in being a non-native standard variety. Majority of its phonemes are very close to the standard British English or RP as, until recently, the target model for pronunciation was what the predecessors of the present-day teachers received from the missionary teachers or teachers taught by the British. The present phoneme inventory is based on the study conducted by the researcher on the English spoken by a young and educated cross-section of urban society in Lahore. The sounds produced by more than 50% of the sample will be considered as representing the speech of educated Pakistani English. A phoneme inventory is the presence or absence of particular phonemes. English has 24 consonant sounds and 20 vowel and diphthong sounds (O'Connors, 1980) while Urdu has 43 consonant and 10 vowel sounds (Bokhari, 1985). RP sounds are used as a reference point to provide a comparison-point without any suggestion of it being 'more correct' or 'superior'. Trudgill and Hughes (1994) claim variation within RP in terms of a conservative or younger accent. This demonstrates that not all speakers of 'an accent' are in conformity over all the phonemes that are part of the inventory. It is possible to belong broadly to a community without sounding exactly like everyone else in the community.

A detailed description of RP vowel sounds, given below is based on Abercrombie (1967), Roach (1984) and O'Connor (1980). An inventory of the phonemes of Pakistani English is given followed by some distinctive phonological features traditionally associated with the local variety.

Pakistani English Vowel Sounds

/ɪ/ Realized as a centralized, front, half-close unrounded vowel in RP e.g. 'sit': /**sɪt**/.

/i/ Realized as a front, close unrounded vowel as in 'seat': /sit/.

/e/ It is a front, unrounded vowel between half-close and half-open. It is a short vowel. In the present study, 62% of the respondents pronounced this vowel correctly in 'genetic' i.e. /genetɪk/ while 38% pronounced it incorrectly by replacing the second vowel [e] with [æ]. Sometimes, [e] is replaced by the long vowel [æ] e.g. 'education' is pronounced as /ædʒʊkɪeɪʃn/.

/æ/ Realized as a front, unrounded vowel just below the half-open position in RP as in ‘man’: /mæn /

/ɑː/ Realized as a centralized, back rounded vowel in RP e.g., ‘calm’: /kɑm/

/ɒ/ In RP, this is a back, rounded vowel just above the open position. e.g. ‘rod’/rɒd /. Half of the total number of subjects i.e. 50% pronounced this sound correctly, 48% had a variation in error by producing the /r/ sound at the end of the word, ‘record’ while 2% substituted the /ɒ / with a /ɑː / sound.

/ɔː/ It is a back, rounded vowel between half-open and half-close. In the present study, in the word, ‘watch’, the pronunciation of the open back vowel /ɔː/ was observed. 66% produced the vowel sound correctly while 34% were unable to pronounce it correctly. They replaced it with back open /ɑː/ vowel Sometimes replaced by /ɑː/ as in ‘walk’: /wɑ:k/.

/ʊ/ It is a back, centralized rounded vowel just above half-close. 56 % of the subjects pronounced this correctly. It is generally realized as in RP but sometimes replaced by /ʊ / as in ‘wool’ which is pronounced /wu:l/ instead of / wɒl /. Another common example is ‘sugar’ which is pronounced as / su:gə/.

/ u / Realized as in RP as a back, close, rounded vowel e.g. ‘boot’ is pronounced as /but/.

/ʌ/ Realized as in RP as a central, unrounded vowel between open and half-open.. It is sometimes replaced by /ɒ/ in words like ‘company’: / kɒmpənɪ / and ‘atmosphere’: /ætmoʊsfɪə/.

/ɜː/ Generally, pronounced correctly but sometimes substituted by /ɜr/ as in /hɜrt/ for /hət /

/ə/ In the initial position, this sound is sometimes replaced by /æ/ as in ‘aenemic’: /ænimɪk / and in the final position by /ɑ/ as in ‘data’: /deɪtɑ/ instead of /deɪtə/. 54% of the respondents pronounced this sound in the word, apparent, correctly with schwa at the beginning of the word while 38% replaced the schwa with / æ/8% pronounced it incorrectly.

Thus we can say that the new English varieties have restructured the sound system of English to suit the sound systems of their first language. This has given them a quasi-autonomy since researchers now consider them as distinct varieties in their own right.

In PE, there are some vowels which are articulated exactly like the English vowels. These are the English vowels which have equivalent sounds in Urdu. These are /i/, /ɪ/, /u/, /ʊ/, /ɔ/, /ɑ/ and /ʌ/. The vowels that need re-structuring to approximate to RP are /e/, /æ/, /ɒ/, /ɜ/, and /ə/.(Figure 9).

Conclusion

The present study has placed Pakistani English in its historical and global perspective and it has also established PE's vowel system as independent and distinct to this variety. This has been done through the evidence collected on the basis of an analytical and comparative study conducted during this research.

This research was based in Lahore and dealt with a statistically significant sample size. The linguistic features of PE were extensively investigated and based on the results of this study, existence of an educated variety of PE along with its characteristic features has been established. While previous research on the subject focused on the historical, political and sociolinguistic factors, it neglected the linguistic aspects. Results suggest that Pakistani English shares certain features with other non-native varieties of English. Prominent among the segmental features are restructuring of vowels by replacing central vowels with either front or back vowels, thus 'monophongizing' some diphthongs by making the first element of the diphthong longer and leaving out the second one. PE also exhibits a lack of distinction between long and short vowels.

There is a general acceptance of the educated variety of Pakistani English among native and non-native speakers of English. This is evidenced from the extensive use of this variety by Pakistanis living and working abroad in diverse occupational fields. Additional research on the intelligibility of PE by native and non-native speakers of English would be most instructive. Influence of mother tongue on the spoken language of L2 speakers is another area of inquiry that begs exploration. Hence, the study offers various avenues of extension and further research.

In conclusion, this study aims to make a valuable contribution to the body of work done on the linguistic features of PE with special significance for English teaching practitioners, curriculum designers and language researchers.

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