

Beyond British English: Exploring the Nuances of Closing Diphthongs /aɪ/, /eɪ/, and /ɔɪ/ in Pakistani English

Bukhtawer¹

Faiza Yaqoob²

Dr. Ali Hussain Bin Sadiq³

Corresponding Author: bukhtaweraqeel8@gmail.com

ABSTRACT

Phonological variance is a recognized phenomenon when it comes to speaking a second language. The current study aims to examine the unique phonological traits of Pakistani English pronunciations with particular attention to a set of closing diphthongs /aɪ/, /eɪ/, and /ɔɪ/ ending with /ɪ/ sound. For this purpose, the study used the descriptive method to explore the phonetic pattern variations among Pakistani and Standard British English pronunciations. By following the convenience sampling technique, ten participants from a private sector university in Sialkot Pakistan, are selected as a sample. A list of common words targeting selected diphthongs was provided to students, they were asked to pronounce them one after another. By employing PRAAT speech analyzing software, the obtained data suggests that Pakistani English holds distinct phonological features due to the influence of native Urduized pronunciation. Significant differences in diphthongs were found by formant value analysis (F1 & F2), with PakE showing greater values than RP. Enclosing the fact that indigenous languages and regional accents have influenced the pronunciation of PakE. The observed formant patterns may be further influenced by variances in diphthong phonemes introduced by these dialects. This work expands our comprehension of this ever-changing variant of English by allowing us to examine how regional dialects impact additional aspects of PakE phonology.

Keywords: diphthongs, Pakistani English, Received Pronunciation (RP), PRAAT, phonological variations

INTRODUCTION

In Language, one of the main parts of a conversation is pronunciation. A sub-expertise from talking ought to be focused on the importance of phonetics in teaching pronunciation harder by EFL students, because, teaching pronunciation is a huge contributory element for progress in oral speaking (Priya & Kumar, 2020). As a bridge to effective oral communication, pronunciation is crucial for language learners. This is especially true when they use the target language they learn and produce the right words and phrases, including individual sounds, formants, spelling, pitch changes, stress, and intonation. Nurjannah et al., 2023 state that it is beyond the realm of possibilities for the students to talk fluidly assuming that they fall flat in pronunciation. Going against the norm, the adverse consequence of pronunciation error can lead to misconception and uncertain correspondence among audience members. In light of communicative language teaching (CLT), the essential inspiration for individuals who are learning another dialect is to work on their open ability. That is what it intends for the understudies not just to find out about the standards of the language in developing sentences, but it additionally finds out about factors affecting the English pronunciation of ESL learners.

The most desirable goal for all ESL learners, including non-native speakers, is to become proficient in the four English language domains speaking, listening, reading, and writing. However, many students believe that speaking English well serves the most useful function, particularly in the age of globalization. Learning a foreign language and wanting to sound as natural as possible in pronunciation seems to be a frequent goal. Nonetheless, pronunciation is hard to learn, maybe because it is much harder to acquire than it seems. Moreover, every student

¹MPhil Scholar, DLC, UMT Sialkot, Pakistan.

²MPhil Scholar, DLC, UMT Sialkot, Pakistan.

³Assistant Professor, DLC, UMT Sialkot, Pakistan.

should know about suitable articulation, if he needs to accomplish effective talking in English (Abdurrahman & Ramamoorthy, 2021).

English nowadays is used as a language of communication and to connect people around the world (Iqbal et al., 2021). They believe that this period passed quickly when people thought of English as the language of colonists and rulers. Pakistani English has also developed a significant accent and holds official status. It has gone through multiple stages of evaluation and is now considered a basic and essential language to be learned and spoken making a strong claim on the divergence of the English language. As it is the only language, we find that it has more non-native speakers than the native ones and it shows the great momentousness of the English language.

English language is governed by rules and it has a specific pattern of speaking and sound pronunciation, which belongs to diphthongs. Diphthongs are usually the part of the vowels, that occupies a significant place in the English language, and these diphthongs are the combination of two vowel sounds within the same syllable. A tautosyllabic sequence of two vowels with distinct properties is referred to as a diphthong. When we talk about this kind of vowel, one common question is where we draw the boundary between heterosyllabic vowel sequences, or any two vowels that occur across a syllable boundary, and “diphthongs” as defined in this fashion. Native speakers and their comparison with Standard British pronunciation and the variations of the specific diphthongs base the present study on the pronunciation of closing diphthongs ending with /ɪ/ sound /aɪ/, /eɪ/, and /ɔɪ/. Closing Diphthongs is the set of diphthongs where the tongue moves from its lower position to a higher position in the mouth during the movement of articulators. This movement usually involves the transformation from a mid or lower vowel to a higher vowel, usually containing the closing of the mouth. These vowels comprised three sounds /aɪ/, /eɪ/, and /ɔɪ/ which are going to be discussed in the current study.

Research Objectives

The objectives related to the research are:

- i. To investigate and compare the pronunciation of selected diphthongs in Pakistani English and standard British English.
- ii. To analyze the acoustic characteristics of diphthongs /aɪ/, /eɪ/, and /ɔɪ/.
- iii. To find out the possible variation in Pakistani English pronunciation.

LITERATURE REVIEW

In Pakistan, people converse in seventy-three different languages. Pakistani people use Urdu, their national language, as a lingua franca as they typically are unable to speak in one another's language or languages. Together with the four main regional languages—Balochi, Pashto, Punjabi, and Sindhi—the nation also speaks several other (minor) languages. It is frequently noticed that when speakers of the nation's various regional languages speak English, it sounds noticeably different from other speakers in many ways, suggesting that their language has some influence from their mother tongue. Consequently, Pakistani English appears to be a collection with multiple sub-varieties rather than a single consistent variety. The language appears to have unique phonetics, phonology, syntax, and lexicon setting as its distinct variety.

Sadiq and Ayyaz (2022) are of the view that English is the most widely spoken language in the world and it has emerged almost all over the globe. Every country has its distinct style of speaking including its accent and dialect. Pakistani English has also been revealed on the surface over the past many years and has gone through certain gauging. “*Pakistani English: Some Phonological and Phonetic Features*” penned by (Rahman, 1991) focused on describing the

phonological and phonetic features of Pakistani English spoken by natives. Researchers also shed light on the segmental and non-segmental characteristics of PakeE (Pakistani English). It examines the pronunciation of diphthongs regarding Received Pronunciation and Standard British English as spoken by Pakistani speakers. Honey (1985) explores the rise of the public school accent highlight, which was common in 1870, and the term Received Pronunciation was utilized interestingly to describe the standard discourse type of English.

The prestigious accent RP, which is traditionally associated with the British middle and upper classes, has also been called, “Queen’s English,” “BBC English,” or “Oxford English”. RP is free of any regional indicators so it does not reveal where the speaker comes from geographically, but will show their social and educational background. According to Thoughtco, this accent fully emerged in the late 18th century and was solidified during the 19th century by figures such as A.J. Ellis and Daniel Jones; Cambridge English teacher.

Nurjannah et al., 2023 in “*Enhancing EFL Learners Diphthong Pronunciation Ability using PRAAT*” tried to complete and analyze the teaching-learning and effective instruction in terms of obstacles and demands of the learners. The alternative way that can be preferred to address the problem of this research is using CALL to help Acehnese EFL learners in their pronunciation skills.

“*Production of English diphthongs: A Speech Study*” by Dosia and Rido, 2017 was an attempt to analyze the speech of President Joko Widodo. Therefore, concerning the ability to write diphthong speech sounds of an Indonesian native speaker (Mr. Jokowi as the President of the Republic of Indonesia 2014 APEC forum’s official speech in China), this study focuses on analyzing his oral proficiency through its diphthong productions. Another study conducted by Abbasi et al., 2018 on “*Acoustic Characteristics of Pakistani English Vowel Sounds*” primarily talked about the motivation behind this examination was to archive acoustic qualities of Pakistani English (PakeE) vowel sounds. The analysis was intended to inspect the properties of ten vowels delivered by Pakistani ESL students. Moreover, the review centers around the acoustic properties of English vowel sounds and their acoustic vowel space in vowel stock plots. Furthermore, a study “*On the Markedness of Diphthongs*” written by Kubozono, 2001 focused on the markedness of distinctions among diphthongs, especially between /aɪ/ and /aʊ/, which are the most common diphthongs across languages. It is demonstrated that these two sounds are equally marked in both English and Japanese languages. This study also sheds light on the fact that /aʊ/ appears less frequently and is used in more phonotactic restrictions as compared to /aɪ/. Additionally, Setyaningsih et al., (2019) in their study of “*English Vowels and Diphthong problems of Sundanese Learners*” were directed to track down the issues and attempt to defeat them so that they could be expected. This sheds study light on the articulation mistakes of the understudies with Sundanese foundation in expressing English vowel and diphthong sounds. As they seem, by all accounts, diphthongs to be more risky among the understudies instead of the consonant sounds.

One more comparative study of pronunciation by AbdAlgan and Idris, (2020) puts attention to the study as an endeavor to explore the difficulties that EFL Learners inappropriate and address articulation in communicating in English. Besides, they concentrate on targets illuminating the meaning of elocution in teaching as well as figuring out how to any instructive foundation that takes on English as a course in the educational program, especially at the tertiary level.

Abdulwahid (2023) did another notable study on “*Teaching and learning phonetics obstacles in EFL classrooms:Cihan University-Erbil*”. Figuring out the principal impediments speakers face

in educating articulation the investigation reveals insight into the staggering blocks in elocution looked by English as an Unknown dialect first-year recruit understudies at the divisions of English and Interpretation, personnel of Expressions and Letters. In addition, this study attempts to reveal insight into the principal reasons that lead to cause error of some sounds.

The previous studies focused on the markedness, boundaries, and the difficulties of diphthongs in the English language concerning their native languages but no study has been done in the region of Sialkot particularly focusing on native Urdu language and the challenges for the Sialkot students in pronouncing diphthong /aɪ/, /eɪ/, and /ɔɪ/ either urban or rural in the university domain. Therefore, the current study highlights the specific formant values and the comparative analysis of Pakistani English speakers with Standard British pronunciation of particular diphthongs.

THEORETICAL FRAMEWORK

Uriel Weinreich is often credited with foundational work in the study of Language Contact. His seminal book, *“Languages in Contact: Findings and Problems”* (1953), is considered a cornerstone in the field of linguistics.

The “Language Contact Theory” looks at how speakers of different languages interact with one another and how this frequently results in linguistic changes. Contacts between languages result in various phenomena and cause “contact-induced changes”. The contact may be “direct” or “indirect”. In the first case, it takes place in bilingual or multilingual speakers. In the second case, the contact occurs without a direct contact of people through book learning.

This Language Contact Theory investigates multiple facets but language interference (Weinreich, 1953) and transfer, addresses how aspects of one language affect those of another, resulting in variations in phonetics, lexicon, and syntax. It investigates how linguistic structures are influenced by the integration of multiple languages by individuals and communities.

Additionally, “language maintenance and shift” are explored by the theory (Weinreich, 1953). In multilingual settings like Pakistan, where local languages and English coexist, this idea is pertinent. The hypothesis can be used to clarify how sociolinguistic factors affect language pronunciation and adaptation in Sialkot's rural and urban districts.

The researchers are going to relate this model to support their research objectives. It talks about the phonological and phonetic changes in L2 and the impact of the first language while acquiring the second language. Additionally, it contributes to understanding how local languages such as Urdu, Punjabi, Sindhi, Pashto, and others have impacted English, especially in pronunciation, when it comes to Pakistani English. Some multiple variations or factors occur in this process, like phonetic influence, phonological patterns, and sociolinguistic patterns. These features occur due to the impact of L1 (Urdu) on the English language in both rural and urban areas of Sialkot. In short, by adopting the Language Contact Theory, researchers may thoroughly grasp how and why the pronunciation of English in Pakistan diverges from native variants, demonstrating the dynamic interplay between languages in a multilingual situation.

RESEARCH METHODOLOGY

This study employs a mixed method approach, which inspects the analysis of diphthong /aɪ/, /eɪ/, and /ɔɪ/ pronunciation in Pakistani English. A descriptive examination was carried out at a private university in Sialkot, Pakistan. Following a convenient sampling technique, the research sample was 10 university students enrolled in the BS-English Program from the 6th semester. Students were selected through simple random sampling, based on their availability and accessibility to the researchers. Urdu or Punjabi language reported as their primary language

source whereas they encountered English for educational means for at least 13-14 years. The participants agreed to participate in the study after being exposed to the purpose and goals of the study. Recordings of student's pronunciations will be analyzed by using PRAAT Software. As a research instrument tool, it will help to check the variations between diphthong pronunciations of Pakistani English and Standard British English. A list of fifteen words with distinct words including diphthongs /aɪ/, /eɪ/, and /ɔɪ/ has been created where each diphthong holds five words. The list included unsophisticated and frequently used words. Each participant was requested to visit the room one after another willingly. A printed copy of selected words with instructions to read each word once was given. Consecutively, each sound is recorded separately to avoid data misinterpretation.

Instead of being instructed to pronounce words correctly or incorrectly to accurately represent Pakistani English phonological features, the participants are taught to utter each word as they apply it in their real-life settings. When their word pronunciations are recorded, students are neither encouraged nor discouraged to speak in certain ways. Even if students ask about the pronunciations of specific before recording, they are informed of the validity concerns of the research, which helps to make the research objective and unbiased. The participant's pronunciation is recorded on high-tech smartphones with improved audio features in a calm setting with no background disturbances. The following table consists of a chosen word list along with their transcriptions regarding each specific closing diphthong set /aɪ/, /eɪ/, and /ɔɪ/ ending with the “i” sound.

/aɪ/		/eɪ/		/ɔɪ/	
Aisle	/aɪl/	Daybreak	/'deɪ.breɪk/	Royalist	/'rɔɪ.əl.ɪst/
Heighten	/'haɪ.tən/	Daisy	/deɪzi/	Destroy	/dɪ'strɔɪ/
Hypothesis	/haɪ'pəθ.ə.sɪs/	Bakes	/beɪks/	Exploit	/ɪk'splɔɪt/
Timing	/'taɪ.mɪŋ/	Straight	/streɪt/	Annoying	/ə'nɔɪ.ɪŋ/
Politely	/pə'laɪt.li/	Maintain	/meɪn'teɪn/	Point	/pɔɪnt/

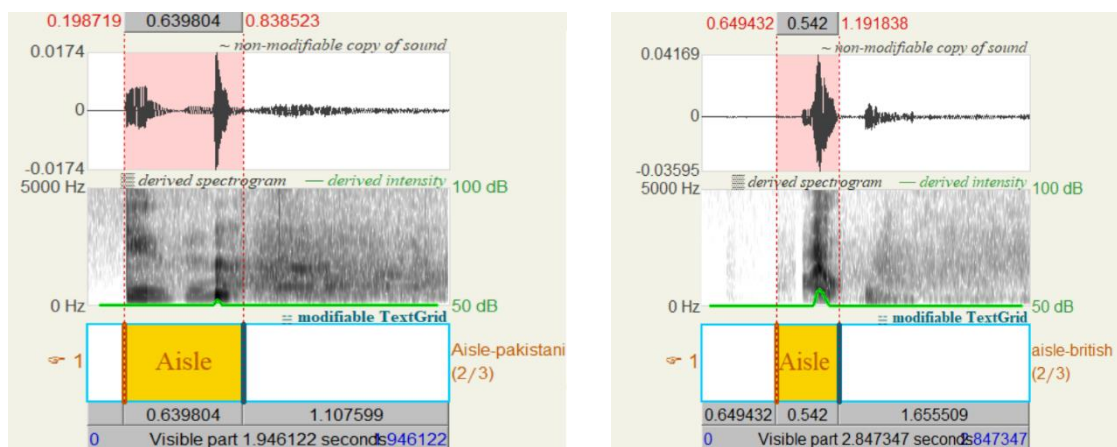
Table: structured wordlist regarding diphthongs /aɪ/, /eɪ/, and /ɔɪ/

DATA ANALYSIS

This part of the study provides detailed insights into the data being analyzed with its possible findings. By employing the PRAAT software, the study intended to present the analytical patterns of the sounds in the form of waveforms and spectrograms including text grids and intensity lines. While performing on software, screenshots of required sounds have been captured and added for clear distinctions.

The right-handed spectrogram screenshot represents the outcomes of Standard British English pronunciation. On the other hand, there are results of Pakistani-English pronunciations in the form of spectrograms. Out of the recorded material, every single word referring to each of the three diphthongs /aɪ/, /eɪ/, and /ɔɪ/ was selected and operated through the PRAAT software.

However, the study recognizes the limits of time and processing capacity needed for a thorough Praat analysis of all fifteen terms. The process of creating and evaluating spectrograms for every word might take a long time. Furthermore, a huge quantity of spectrograms might be overwhelming to readers and perhaps hide important data if presented and interpreted. We will analyze three words using spectrograms, one for each diphthong. The alternative data presenting technique of narrative description will be considered for the last twelve words. It will explain any trends or differences in formant values for the remaining words identified based on the information produced by Praat Software.



From Pakistani English

From British English

Figures 1 &2: The Spectrogram, text grid, and the intensity of /aɪ/ in Aisle

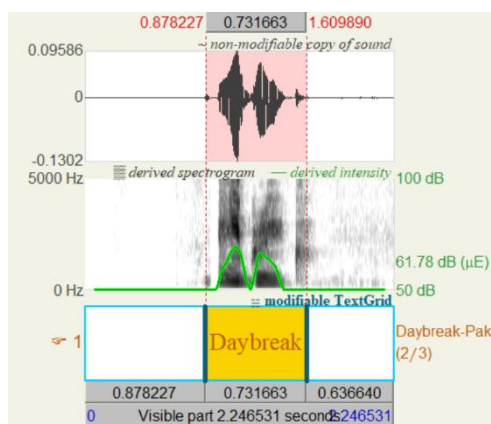
The above-clipped screen visuals provide the results of the acoustic analysis of the word ‘Aisle’ including diphthong /aɪ/. The Praat Speech software represents the energy of sounds in the form of frequencies of speech waves known as Formants. This helps to figure out the values of F1 and F2 of selected sounds. By annotating both sounds from Pakistani and standard British English on Praat Software, the researcher got a display, which was added, in the form of screenshots to explore the results. The voiced sections of the speech, which reflect the word's precise pronunciation, match the yellow sections in the Praat spectrogram.

The remaining regions (not colored yellow) may represent silence or silent noises that are captured but do not add to the basic pronunciation. The prominent dark spots on the spectrograms of Pakistani English show an elevated amount of energy, referring to the more stretched and incorrect pronunciation of the word “Aisle”. The intensity that is presented as a green line in Pakistani English did not rise due to the wrong emphasis on the pronunciations of the

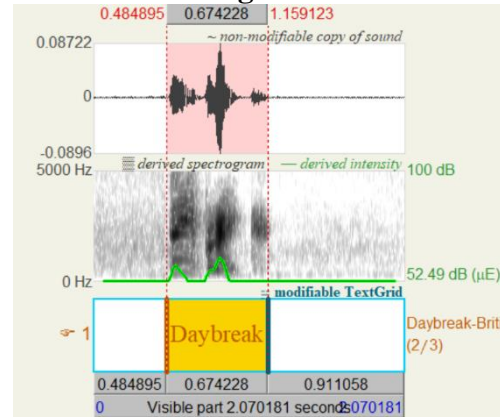
words. Opposite to it, Standard British English pronunciation of the same word represents dense and shorter black spots, highlighting the presence of the /aɪ/ sound resulting in correct pronunciation. The results of the formant we get are:

Formant value	Pakistani English	Standard British English
F1	512Hz	853Hz
F2	1874Hz	149Hz

From Pakistani English



From British English



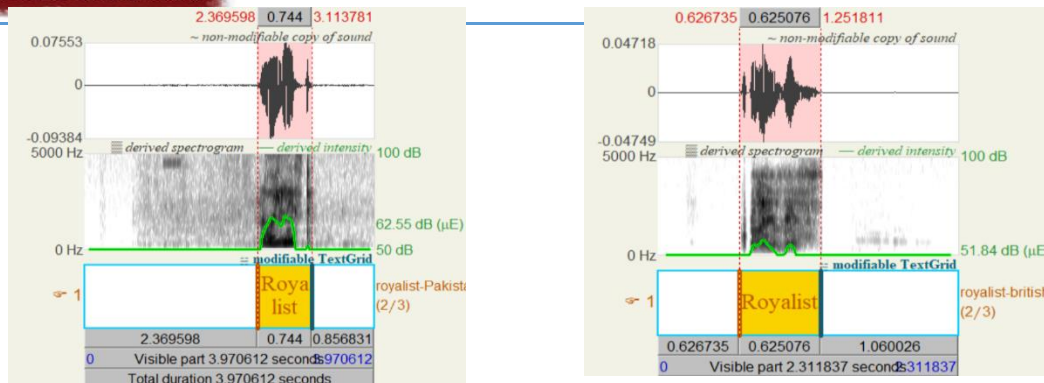
Figures 3 &4: The Spectrogram, text grid, the intensity of /aɪ/ in Daybreak

These above-given spectroscopic images propose an acoustic analysis of the word “daybreak” including diphthong /eɪ/. In that respect the left, image represents Pakistani English pronunciation with more stretched wavelength durations. Just as visible through the continuous occurrence of black patches in the spectrogram. Furthermore, a quiet rise of intensity along their values in both spectrograms is visible which can help to differentiate which word is uttered with more emphasis. For instance, the diphthong /eɪ/ in Pakistani English is presented as the /ay/ sound with an emphasis on the syllable. On the contrary, spectrograms of standard British English pronunciation indicate the presence of the /eɪ/ sound after the /d/ sound. In addition, a few black patches show a low concentration of energy. Formant levels for both kinds of pronunciations are:

Formant value	Pakistani English	Standard British English
F1	522Hz	794Hz
F2	2003Hz	2025Hz

From Pakistani English

From Standard British English



Figures 5 & 6: The Spectrogram, text grid, and the intensity of /ɔɪ/ in Royalist

The upper spectrograms are related to the word “Royalist” with a diphthong /ɔɪ/. The left visual spectrogram shows Pakistani English pronunciation with squeezed black patterns. The wavelength is short without any emphasis or stress on sounds. Alternatively, Standard British English represents the wavelength full of required stress exceeding the length of the wave. Moreover, the intensity of Pakistani English is raised as compared to standard British English, which is significant from the attached analysis done through PRAAT. The values of formants for both accents are:

Formant value	Pakistani English	Standard British English
F1	577Hz	727Hz
F2	1769Hz	1716Hz

NARRATIVE DESCRIPTION

The following analysis as previously continued by PRAAT Software demonstrates the extent to which diphthongs /aɪ/, /eɪ/, and /ɔɪ/ are employed in Pakistani English. From the selected list, although all fifteen words are analyzed using spectrograms, due to time and lengthy data constraints the narrative description approach is employed to provide the formant value analysis for these words. In addition, providing readers with numerous visuals might make the information visually overloaded and could obscure important conclusions. The focus is to evaluate the specific diphthong pronunciations in Pakistani English by students of Sialkot. The study is not aimed to promote or depreciate any particular accent. The efforts are to genuinely display the phonological aspects of Pakistani English.

Analysis of words with diphthong /aɪ/

Heighten/ 'haɪ.tən/

When we compared Pakistani English with Standard British English, our analysis utilizing Praat showed different formant patterns for the diphthong /aɪ/ in the word “heighten”. In Pakistani English F1 = 710 Hz and F2 = 1675 Hz were the measured formant values. In comparison to the normal realization of /aɪ/ in British English, this suggests a potentially lower tongue position because of the lower F1 and a more central articulation due to the lower F2. For British English F1 = 802 Hz and F2 = 1856 Hz were the formant values found for BE. When comparing the /aɪ/ diphthong to PakE, these values indicate a higher tongue position because of the higher F1 and more front articulation because of the higher F2. PakE with lower F1 and F2 values might point to a more concentrated diphthong, possibly becoming more similar to the pronunciation of /eɪ/ as in “reign”. The greater F1 and F2 values in British English, on the other

hand, correspond more closely to the typical “high” representations of /aɪ/ and show a more forefront articulation.

Hypothesis /haɪ'pəθ.ə.sɪs/

In Pakistani English as opposed to British English, the term “hypothesis” showed different formant patterns for the diphthong /aɪ/. Rather than being mispronounced, these variances draw attention to unique aspects of each accent. From Pakistani English, formant values are F1 = 718 Hz and F2= 1842 Hz while from British English F1= 850 Hz and F2= 1635 Hz. When examining the variations, a higher tongue position during vowel articulation is indicated by a lower F1 score in Pakistani English. In contrast to British English, it appears that the tongue is positioned higher in the mouth when the /a/ component of the /aɪ/ diphthong begins in Pakistani English. The distinct acoustic properties of Pakistani English are partly attributed to this variation. Keeping a view of spellings, some of the students replace the /aɪ/ sound with the long /i:/ sound while looking at the ‘y’ letter in the word ‘hypothesis’.

Vowel backness is linked to F2. The sound of the vowel appears more concentrated when the F2 is higher. In comparison to RP, the /ɪ/ part of the /aɪ/ diphthong in Pakistani English seems to be more centered in this instance. This characteristic may cause the recognition of a diphthong in PakE to change somewhat, sometimes even becoming closer to a higher, more predominant vowel sound.

Politely /pə'laɪt.li/

The analyzed formant values we get for the word “politely” in Pakistani English are F1 = 680 Hz and F2 = 1877 Hz while on the other hand, from Standard British English, are F1= 634 Hz and F2 = 1701 Hz. When articulating vowels, a lower F1 value denotes a higher tongue position. In this instance, the tongue appears to be placed somewhat higher in the mouth. Likewise, PakE gives a higher F1 value than it does in RP when the /a/ segment of the /aɪ/ diphthong begins. Contrastingly, the /ɪ/ part of the /aɪ/ diphthong in PakE seems to be more centered while checking the F2 values between both accents. However, between RP and PakE, there is a mere 46 Hz F1 difference. There may not be much of a change in the /a/ sound at the start of the diphthong due to this tiny shift in the tongue height.

However, there is a significantly larger F2 differential of 176 Hz. This is comparable to a notable shift in the tongue position. When compared to RP, a greater F2 in PakE indicates that the tongue shifts toward a more central location for the final /ɪ/ sound in the diphthong. This change is more likely to be perceptible and in some situations may even make the /ɪ/ sound in PakE sound closer to a lengthy “ee” like /i:/ sound. These variations found in sounds present distinct features of Pakistani English pronunciations. Despite these, pronunciations are likely to be understood in the Pakistani context.

Timing /'taɪ.mɪŋ/

The received formant values for PakE consist, of F1=607 and F2= 1947 while for RP, F1 = 421 and F2= 1184. Pakistani English may have acquired a unique vowel articulation pattern, with the tongue beginning higher for some diphthongs, such as /aɪ/. When comparing RP and PakE, the substantially higher F1 value 186 Hz difference indicates that the tongue starts much higher in PakE for the /a/ section. Conversely, there could be an effect by integration with neighboring sounds in PakE, resulting in a higher position. An even more significant shift in the /ɪ/ component of the diphthong might be indicated by the even bigger F2 differential of 763 Hz between both

accents. For a higher F2 rating, PakE speakers may strive for a more centered vowel sound for the /ɪ/ sound. There is a regional variation in this pronunciation. According to monothongization as the prominent feature of PakE, when the tongue moves earlier into a more central position, PE speakers may be able to diminish the diphthong marginally. This results in a greater F2 and may be nearing a single, centered vowel sound.

Analysis of words with diphthong /eɪ/

Daisy /derzi/

The word “Daisy” displays intriguing formant differences between RP and Pakistani English for the diphthong /eɪ/. English from Pakistan F1 = 437 Hz (Lower) and F1 = 758 Hz (Higher) in British English. When articulating vowels, a lower F1 value denotes a higher tongue location. In this instance, the tongue appears to be in an elevated position in the mouth during the /e/ segment of the /eɪ/ diphthong in PakE than in RP. On the other hand, Pakistani English with (lower frequency) results in F2=1595 and F2=1701 (Higher) in Standard British English. In PakE the tongue may travel somewhat rearward during this portion of the diphthong because the /ɪ/ sound in PakE may be significantly “backed” as opposed to RP. There may be a more concentrated sound in RP, which results in a more vibrant and distinct vowel sound at the final segment of the diphthong.

Bake /berk/

For the word ‘Bake’, Pakistani English reveals values where F1=494 and F2=2618, and Standard British English resulted with F1= 847 and F2=1966. By preferring the letter /a/ in ‘bakes’, which violates the use of the /eɪ/ sound. Due to the lower F1 and higher F2, the /eɪ/diphthong in Pakistani English appears to have an elevated initial position of the tongue in the /e/ segment and the /ɪ/ component suggests the possibility of a deeper ending. Pakistani English speakers might pronounce as close to Standard British English but the slightest change of stress pattern can influence the pronunciation. This helped to know the distinct variations found in the pronunciation of PakE.

Maintain /mem'tem/

When the diphthong /eɪ/ in the word "maintain" is formally analyzed, there are differences between British English and Pakistani English. Compared to RP with F1 585 Hz, PE has a lower F1 value of 441 Hz, which might indicate that the tongue starts the /e/ component of PE at a higher location. The significant F2 discrepancy with PakE= 920 Hz, and RP= 1317 Hz further suggests that the /ɪ/ ending varies. In contrast to the perhaps more centralized /ɪ/ in RP, the lower F2 in PakE may indicate a move towards a less centralized vowel sound. Formant value changes relative to have complicated causes that probably include several components.

Straight /stret/

It is inferred that when a PakE is initiated, the tongue is nearer to the ceiling of the mouth with the F1= 595 Hz. According to the localized language usage, the tongue appears to begin at a higher place for the first /e/ sound than in RP, according to the lower F1 value. While RP with F1= 1085 Hz, where tongue begins at a lower location as shown by the greater F1 value in BE. The first /e/ sound is produced by opening up the mouth cavity more. Considering F2 values, PakE generates 1961 Hz, which might imply that the tongue maintains a more neutral position within the oral cavity throughout this part of the diphthong in PakE. On another hand, the smaller F2 value of 1317 Hz from RP suggests a possibly less centered sound. The tongue may move

dramatically backward during this part of the diphthong. Understanding numerous languages gives rise to varied ways of experiencing sounds. Because of these variances, Pakistani English is a distinctive version of English.

Analysis of words with diphthong /ɔɪ/

Destroy /dɪ'strɔɪ/

The formant values for the word 'destroy' likewise others are in distinction due to the regional phonological differences between Pakistani English and Standard British English. For PakE, F1=323 and F2= 2480. Meanwhile for RP, F1=403 and F2=1582. According to the diphthong reduction tendency, in PakE more favorable F2 value and gets closer to a single, concentrated vowel sound. Mostly there are inherent similarities in both accents due to the back-rounded vowel sound of the /ɔɪ/ diphthong produced by placing the tongue at the rear of the mouth. Unlike diphthongs with more variable beginning locations (like /eɪ/), this inherent backness may make it harder to vary accents significantly.

Exploit /ɪk'splɔɪt/

Vowel tensing may be a tendency among PakE speakers, especially in stressed syllables such as the first syllable of "exploit". In broad terms, tensing increases formant values, which might account for the greater F1=1043 in PakE even if the tongue position may have started lower.

Local tongues like Urdu may have an impact on how PakE is pronounced. In contrast to English vowels, Urdu vowels are often more centered. A more centered part might result from PakE speakers carrying over this propensity to /ɔɪ/, possibly increasing F2=1949. At the same time, Standard British English presents dense and lower F1=904 and F2=1221 as compared to PakE as its distinct trait.

Point /pɔɪnt/

While examining the formant values for the /ɔɪ/ diphthong in "point" there are some ups and downs between Pakistani English and British English. When PakE speakers start the diphthong, the tongue in PakE may have started at a higher place during the first sound. That is why as compared to British English with higher F1=713 Hz, PakE has a lower F1 value 430 Hz, making it stand out. The vowel sound is more centered when the F2 is higher. In this case, PakE outperforms with a substantially greater F2 value of 2800 Hz, and RP with 1627 Hz. So, individually both accents achieve higher or lower notes according to their respective discrete characteristics.

Annoying /ə'nɔɪ.ɪŋ/

Looking for the F1 values, the observed frequencies for Standard British English are 699Hz slightly higher than PakE with 677Hz. The F1 differences in PakE and RP are quite tiny—about 22 Hz. A lower F1 usually denotes a higher tongue position. However, for the first /ɔ/ sound in "annoying," such a small variance could not correspond to a noticeable difference in tongue height among both dialects. It is possible that the tongue positions of the two accents are comparable at the start of the diphthong. In contrast to RP 1881 Hz, PakE has a much lower F2 1279 Hz. A discernible variation in the production of the /ɪ/ segment of the /ɔɪ/ diphthong for every dialect is shown by this significant divergence of about 602 Hz. RP appears to prefer a more centered /ɪ/ sound, whereas PakE possesses a less centrally managed maybe back, /ɪ/ sound. It showed that Pakistani speakers have less emphasis on the use of diphthong /ɔɪ/ due to their distinct phonological variations.

CONCLUSION

The contemporary analytical investigation has employed empirical techniques for collecting data objectively indicating variations in how Pakistani students in the region of Sialkot utilize English. After careful consideration, regarding analyzing the diphthong pronunciation of Pakistani students from the sixth semester, the researchers uncovered the following results. Based on data evaluation, it determined that targeted speakers pronounce words containing diphthongs /aɪ/, /eɪ/, and /ɔɪ/ differently than they do in RP. To depict speech patterns and quantify formant frequencies (F1 & F2), spectral graphs text grids, and intensity lines were produced using PRAAT Software. Significant variations between the two types were found by the investigation. Particularly, formant location in spectrograms and formant value assessments supported the greater F1 and F2 values that PakE showed in comparison to RP. This result implies that native tongues and local dialects may influence the generation of PakE diphthongs. These frequently noticed variances in the language of Pakistani English speakers could promote distinctive features of phonological shifts. Pakistani English holds the privilege of standing as a unique global variant of English by considering the variety of ways used to modify diphthong pronunciations in Pakistani English. Due to limited exposure, the findings of the study are limited to Pakistani English pronunciations by students of Sialkot, which does not apply to people whose first language is English or people from other regions of Pakistan. Furthermore, the same investigation of phonological variations with more emerging features may be done by expanding the criteria of exploration to other provinces of Pakistan.

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