

## A CONTRASTIVE ANALYSIS OF THE CONSONANTS OF ENGLISH AND PASHTO; THE CASE OF PASHTO AND ENGLISH FRICATIVES

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### ABSTRACT

The present study aims to conduct a contrastive phonetic analysis of the consonants of English and Pashto languages by looking into those deviant consonants of English which pose problems to the Pashto speakers during learning English. The acoustic comparative phonetic analysis of the English consonants pronounced by Pashto speakers as compared with those of the RP speakers revealed certain similarities and differences during the production of the English consonants in the English words' initial, medial and final positions in terms of the manner and place of articulation as revealed by the analysis of speech samples through Praat. The study found that Pashto speakers with English background can pronounce fricativeconsonants like س/s/, ز/z/, ش/f/, ژ/ʒ/, and ه/h/native like, though with slight variations in ش/f/, ژ/ʒ/and the fricativeconsonantslike ف /f/ was pronounced quite different by Pashto speakers than the English fricative /f/. Similarly, the fricativeconsonants like خ/x/, ب/b/, غ/g/, ص/s/, ظ/z/, ث/th/, ذ/d/,and ح /h/ exist in Pashto but are not found in English but which play a pivotal role in Pashto spoken and written language. The fricative ع /ʕ/ was observed to be pronounced as a definite fricative by Pashto speakers as compared to the RP speakers who rather pronounce this sound only when they goltalize certain vowels and consonants. The study recommends that the teachers of English at college level should properly train the Pashto L1 learners of English in the pronunciation of English fricative consonants to acquire correct English pronunciation and expose them to the essential similarities and differences of the consonants

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of Pashto and English languages during class room situations so that their hurdle of intelligibility may be overcome for successful communication with the native speakers of English.

## **Introduction**

### **Background of the Study**

Pashto language, which is also written as Pukhto by its speakers, is the language of the Pashtuns (Preferably the Pukhtoos-- Afghans as the Persians call them or the Pathans, as the Indians call them). The Persian literature nominates it as Afghani and the Pakistani Urdu and Indian Hindi literature calls it Paṭhani. Pashtuns, Pakhtuns and sometimes Afghans or Pathans are the people who speak Pashto in the eyes of the people outside the province Khyber Pakhtunkhwa (Akbar, A., 2020). One of the two official languages of Afghanistan is Pashto, which is spoken by 60% of the Pashtun population, the other being Dari. Around 20-25 million population in Pakistan speak Pashto. Other communities living in Tajikistan also speak Pashto besides the Pashtun communities living in UK, Canada, Germany and the Gulf states (Keith & Sarah, 2008). In a study of 2006 by Rahman it is stated that the total speakers of Pashto form 15.42% of the total population in Pakistan while 73% of the Khyber Pakhtunkhwa province speak Pashto as native tongue (Rahman, 2006). Pashto also has a large number of speakers in Karachi, the southern economic hub of Pakistan (Habibullah & Barbara, 1996). A considerable number of speakers also speak Pashto as their mother tongue in Iran (Rahman, 2009).

As far as the differences among all these dialects of Pashto are concerned, various studies have revealed that the differences other than phonological differences are not so noticeable as to divide Pashto as a language into contrasting dialects (MacKenzie, 1959). In fact all dialects are mutually intelligible among the Pashtuns but the Yusufzai dialect is spoken and understood across the Khyber Pakhtunkhwa province and is owned by writers such as poets, novelists and media persons since writing in this dialect ensures intelligibility not only within the province but also for the international readers and listeners of Pashto

### **The Yusufzai Pashto, its phonemes**

Pashto has forty one phonemes including eight vowels, two diphthongs and 29 consonants (Olson, 1996). In order to understand the consonant system of Pashto, we need to have knowledge of Arabic consonants also because Arabic has a great influence on Pashto consonant system on account of the introduction of pure Arabic consonants into Pashto which did not exist in Pashto but which it has borrowed from Arabic although certain features are missing in Pashto. Study of Arabic consonants is not the scope of this research paper. In English language, we

have regular consonant phonemes with distinct alphabets and phonetic characters but the problem in Pashto language is that certain sounds are pronounced in combination with other phonemes but these sounds do not have distinct characters of their own in writing like English which are used in writing and pronunciation at the same time.

### **The Importance of English Pronunciation for Pashto Speakers**

English is the medium of communication and official correspondence in Pakistan. It is also a medium of instruction in educational institutions, administration, defense forces, and other institutions like IT, banking, civil aviation, advertising, mass media and all diplomatic affairs.

The knowledge of English Phonology, Rehman believes, is the crucial feature of English language, which is a language that is stress-timed and the intonation patterns of which carry significance in understanding the speech stretches (Ghani, 2005). Grammar and vocabulary are given importance in pedagogy in Pakistan and are taught in schools from the very elementary level but phonology has not been given that importance even at university level. The same goes for pedagogy at the schools in Khyber Pakhtunkhwa. Consequently, the Pakistani students in general and the Pashtun students in particular face problems in pursuing higher education abroad, due to the fact that they are unable to understand the native speakers of English. English plays a significant role in Khyber Pakhtunkhwa when it comes to official and academic communication and instruction just like other parts of the country. Foreign tourists visit tourists spots like the valley of Swat, Kumrat, Kashmir etc. where Pashto speakers interact with the foreign speakers of English. English is learnt and is a much sought for language being the medium of instructions in most of the institutions of Khyber Pakhtunkhwa alongside Urdu, which is the second official language of Pakistan.

In studies like Rehman (2009) it is stated that native like pronunciation levels are not required of foreign learners but a threshold level of pronunciation is required for smooth and easy communication. Just as teaching of vocabulary and structures is essential for English language teaching programs in the elementary schools and beyond in Pakistan, it is imperative that English pronunciation should be part and parcel of such programs in the curriculums (Rahman, 2009). A learner, being a learner of English as a foreign language learner, is required to be able to use an accent whatever s/he likes but s/he must be intelligible to native speakers (Fraser, 2000).

### **Research Objectives**

This study aims to:

- Identify those consonants of English which are pronounced in a deviated form by Pashtun Speakers of English in comparison to the consonants of RP.
- Investigate the consonants of English which cause difficulties in pronunciation of English for Pashto speakers due to any influence of their L1.

### **Research Questions**

1. What English consonants are pronounced by the native speakers of Pashto Yousafzai Dialect in a deviated form?
2. What consonants of English cause difficulties in pronunciation for native speakers of Pashto Yousafzai Dialect?

### **Literature review**

Peter Roach (2009) believes that we need to learn English pronunciation in terms of phonemes and not in terms of letters of the alphabet. As a general principle, Ghani believes, the spelling system reflects the pronunciation of a language, which is the case in so many languages (Ghani, 2005). However, in English language, the spelling, as a matter of fact, is not essentially a true guide to the learner for the correct pronunciation of English words. We have 26 letters and 44 sounds, including twenty vowels and twenty four consonants in Standard English (RP). In order for us to use the speech sounds correctly in English speech, we need to have the know-how of English phonetics and phonology meaning thereby to know the sounds of English and not rather that of the letters, taking into consideration the confusing and complex nature of English spellings (Roach, 2009). Received Pronunciation (BBC Pronunciation) is recommended for foreign learners as a model (Roach, 2009). The British have compiled Standard dictionaries in Received Pronunciation which has twenty four consonant sounds, as further categorized into plosives, fricatives, affricates, nasals, and semivowelconsonants, with differences in manner and place of articulation.

Daniel Hallberg has collected data for Pashto research and exploring the questions of dialectal grouping was one of the main objectives including finding the criteria for defining those groupings (D. G. Hallberg, 1992). Olson (1996) discusses the vowels and consonants of the East Afghan Pashto and admits that there is diversity in the phonemes of the Pashto among various dialects, so much so that even the phonemes are differently pronounced by each individual Pashtun speaker (Olson, 1996). The author has described the phonemes of Pashto in slight detail with a little focus on the consonants. Olson focuses on the pronunciation of Pashto words with a caution to the readers that may not rely on spellings of Pashto words and focus rather on the way they hear it from natives. Serious bad

pronunciation habits can develop if they are not corrected from the start is what Olson stresses in the beginning of his book. The author prefers to use the Arabic based Pashto for his pronunciation drills and other teaching material due to the influence of Arabic over Pashto not only in terms of lexical borrowing but also on account of the phonetic features that Pashto has received from Arabic. Tegey & Robson (1992, 1996) have published three exhaustive publications consecutively for foreign learners of Pashto, who have attempted to describe Pashto lexical diversity and phonetic variations in standard Pashto dialect spoken by educated people of the area of Kabul and eastern Afghanistan, the dialect used by electronic and print media. The main focus of the series of books published was on the written skills of the learners but pronunciation has also been included in the teaching material and Roman script has been used for transcription. The authors believe that no two Pashtuns seem to pronounce anything the same way and they quote the work of Lorimer's "Pashtu: the Syntax of Colloquial Pashto", published in 1914. Lorimer believes that there is considerable fluidity not only in terms of pronunciation but of usage and vocabulary. (J. G. Lorimer, 1902) Tegey and Robson have chosen the speech of one Pashtun speaker as a model by convincing the readers that if the students learn to copy the Pashto teacher, they will at least be intelligible for all the Pashtuns despite the fact that he will sound educated and urban. Manual 3 is Pashto Conversation by Tegey & Robson which is given to pronunciation drills and practice exercises, which attests to the fact that Pashto language is hard to learn without learning its pronunciation. Naheed in her research "Language Drop a Line to Change the Jargon: A Socio Linguistic Study of Afghani and Pakistani Dialect of Pashto Language" also considers pronunciation to be a decisive factor in the different dialects of Pashto especially the two main dialects i.e. the north-east and the south-west dialects of Pashto (Naheed, Q. 2015). The study takes into account the pronunciation aspect of the two dialects over each other. The researcher has concluded that Urdu language has influenced the speech of the Afghan migrants considerably, thus suggesting that Pashto language may have influence over English phonemes and vice versa. Herbert Penzl (1961) highlights the phonemics of Western loanwords and believes that Pashto has borrowed several Western words ranging from political and geographical terminology to dressing and wardrobe items, along with pronunciation, though some of the sounds have been pashtoized by the natives. Morgenstierne has collected an exhaustive list of Pashto vocabulary items, which does not specifically talk about pronunciation but contains the significance of pronunciation in the sense that without pronunciation the semantic clarity and appropriate usage of words cannot be realized unless the pronunciation aspect is addressed (Georg M., 1927). It is worth mentioning that insufficient research

has drawn on Pashto grammar as well as on phonetics and phonology. This study addresses issues in the phonetics in particular, and the phonology of Pashto in general.

### **Research Methodology**

This study used descriptive linguistic method in the framework of contrastive analysis which draws on both quantitative and qualitative research as per the demand of the objectives and framework of the specific project and the nature of the research questions contained therein.

### **Theoretical Framework**

This study aims to conduct a Contrastive Analysis of the consonants of English and Pashto. When we put two languages for comparison of their syntactic, lexical, morphological or phonological purposes, we are adopting the theory of Contrastive Analysis which was introduced by Lado in 1957. There are various versions of Lado's theory and all versions have been utilized by researchers in the Contrastive Analysis of various languages such as French, German and Arabic etc. in comparison to English. Lado introduced Contrastive Analysis Hypothesis in 1957 and was of the idea that the learner transfers the whole system of his mother tongue in the target language and applies the features of his mother tongue in the second language he learns. This theory suggests that the inaccurate perception of the sounds leads to the inaccurate production (Brown, 1994).

### **Population and Sampling**

This research utilized Judgemental or purposive sampling for its data collection. The primary consideration in purposive sampling is the researcher's judgement as to who can provide the best information to achieve the objectives of the study. The researcher had to go only to those people who in his opinion were likely to have the required information and would be willing to share it.

Purposive sampling, according to Kumar (2011) is extremely useful when we want to construct describe a phenomenon about which only a little is known. This sampling strategy is useful in quantitative research when we select a predetermined number of people who, in our judgement, are best positioned to provide you the needed information for the study (Kumar, R., 2011).

Pashto speakers of the Yusufzai dialect, who had a background of learning English form the target population for this study. The population was selected through purposive sampling because the participants were native speakers of the Pashto Yusufzai dialect and also carried a learning background of English.

### **Data Collection**

Twenty participants, including 10 male and 10 female participants, who belonged to different regions of the District Malakand of the province Khyber Pakhtunkhwa, pronounced the words which were recorded.

After having obtained informed consent of the participants by the researcher, they were given words containing the target consonants with the consonants distributed at the words initial position, the medial position, and the final word positions. The researcher asked the participants to pronounce the chosen words in a natural way with their regular speech pitch and rate and in as usual a manner as they would pronounce in their day to day conversation in the English class. The recording was made with the help of a sensitive microphone through Lenovo core i-7 8th generation laptop with built-in recording software within standard frequency range from 40 Hz to 20 KHz. All the participants were asked to utter the selected words with a gap of two seconds after each word they pronounced. The researcher used high quality headphones with the end goal to hear the pronunciation and transcribe the words in narrow phonetic transcription.

The table 2 at Annexure 2 highlights the words which contained the target consonants. Table 3 at annexure 3 highlights the Pashto words containing the English consonants which were pronounced by the participants.

After recording, the data was transcribed as heard through headphones, and was further analysed through the computer software PRAAT which is designed for speech analysis, through which spectrograms were obtained for the observation of the data. The target consonants, as pronounced by Pashto speakers, were compared with those of the RP English consonants. Wells (1962) and Deterding's (1997) data of native consonants was utilized for comparing the target consonants produced by Pashto speakers with the RP consonants.

### **Data Analysis and Discussion**

Data analysis is an important aspect of research because the results and conclusions are based upon the data analysis. It is a critical phase in research and needs careful handling on part of the researcher. The correct analysis of data depends on the correct methods of collecting data for research. The researcher obtained  $68 \times 20 = 1360$  number of recorded sounds which included  $35 \times 20 = 700$  recorded words of English for English consonants and  $33 \times 20 = 660$  recorded words of Pashto language for Pashto consonants. The recorded sounds by each participant were transcribed as obtained from the recordings heard through sensitive headphones. The transcribed speech was analysed quantitatively through Praat and qualitatively by the researcher. The table 4 at annexure 4 shows in a summarized form the pronunciation of 20 Pashto native speakers of English who uttered a total of 35 words for the 15 consonant sounds contained in the words.

### **The Acoustic Analysis of Pashto Consonants**

The acoustic analysis is important in the study of phonetics due to many reasons, the main reason being that it is more scientific and objective in nature. Li, 2004 believes that one approach to consonant analysis is that "the differences of

English consonants can be scrutinized in terms of formant frequencies and its articulatory locations” (Singh, 1982). Li (2004) refers to Ball & Rahilly (1999) who state that the formant F1 represents consonant height, while the formant F2 represents the tongue advancement and lip rounding effects as well as the whole energy throughout the formants.

### **Pronunciation of the fricative consonants س /s/ and ز /z/ by Pashto Speakers**

The total of 35 consonants were pronounced by 20 participants and all 20 participants pronounced the target consonant sounds correctly, and the number of deviant sounds was zero which indicates that the Pashto speakers had no problem in pronouncing them.

These two fricatives of Pashto have been grouped together on the basis of their manner and place of articulation. The place of articulation for each sound is exactly the same, although /s/ is voiceless and /z/ is voiced. Both the sounds are alveolar because the tip of the tongue is felt closer to the alveolar region though not touching it. The air stream is released through a narrow passage along the tip of the tongue. As soon as the tip of the tongue is lowered from the alveolar region, the fricative stops. Both these alveolar fricatives are continuants and can be produced for as long as the air stream continues to flow through the narrow passage formed by the position of the tongue. Examples in Pashto are sam سم /sɒm/ i.e. correct and zam زم /zɒm/ i.e. going.

### **The Pronunciation of Fricative Consonants ش /ʃ/ and ژ /ʒ/ by Pashto Speakers**

The researcher observed that 10 out of the 20 participants i.e. 50% of the participants had problem with pronunciation of the consonant ژ /ʒ/ while 15 out of 20 participants pronounced the ش /ʃ/ fricative in RP like manner. The rest of the deviant pronunciations were ascribed to the influence of L1 whereby the Pashto speakers pronounce these fricatives slightly differently.

These fricative sounds are called palatal fricatives of Pashto. During their production the tongue touches the hard palate on either sides while the tip of the tongue is flattened to let the air escape through the centre of the tongue. The passage for the air to pass is not as narrow as in the case of /s/ and /z/ but rather wider for the production of the /ʃ/ and /ʒ/. The Pashto phonemes have slightly different phonetic characteristics than the English counterparts /ʃ/ and /ʒ/ which are more liquid and soft in realization. These Pashto phonemes are much harder and heavier comparatively due to the amount of air contained by the tongue and due to the much closer and harder contact of the two sides of the tongue with the hard palate. The /ʃ/ phoneme is voiceless while the /ʒ/ is voiced. Examples in Pashto are shpag شپگ /ʃpɒg/ i.e. six and Jabba ژبه /ʒɒbɒ/. Interestingly the Pashto

speakers pronounced the څ /ʒ/ fricative as /dʒ/ which is pronounced as affricate by the RP speakers whose features are slightly different than fricatives.

### **The Pronunciation of Fricative Consonants څ /χ/, ځ /X/, ځ /ɣ/, by Pashto Speakers**

These fricatives don't exist in English and the RP speakers have problems in pronouncing them. Therefore, no sample was found in RP phonetic inventory to compare these sounds with those of RP. The researcher had to rely on the spectrograms obtained from the speech of the Pashto speakers and give a descriptive analysis of these Pashto fricatives. These phonemes څ /χ/ and ځ /ɣ/ are also typical uvular sounds just like many sounds of the Arabic language. Few Pashto consonants which are borrowed from Arabic and Persian are also typically uvular. For the production of this sound the back of the tongue is touched to the uvula further back than the velum. The air passage is released through a narrow stricture formed for the production of the sound. A special phonetic effect gives a distinct phonemic characteristic to this consonant which is the quality of vibration despite the fact that fricative څ /χ/ is a voiceless fricative sound. The resonating effect in the uvular region creates that special effect of sort of harshness in the production of this phoneme which tends to be more sonorous than musical. The similar is more the case with the ځ /ɣ/ fricative which is produced in the same region as the څ /χ/ but this phoneme is voiced and accompanied by the air stream. It retains the quality of continuation as typical fricatives in that it can be continued as long as there is air stream available. Examples in Pashto are *khandaa* خنداا /χəndɑ:/ i.e. smile and *gham* غم /ɣɑm/ i.e. sorrow. I have given the IPA symbol ɣ for this sound and I had a reason for this. Some speakers of Pashto, particularly the speakers from Kabul Afghanistan and the southern districts of the Khyber Pukhtunkhwa pronounce the sound in more a Pukhtoon phonetic feature rather than Arabic although the sound is Arabic. These speakers have Pukhtunized few sounds of the Arabic and this sound is also one of those.

The Pashto phoneme ځ /X/ is a fricative whose manner and place of articulation is different than the rest of the fricatives. And the second reason is that it is the original sound of Pashto language which is not borrowed but rather used in Pashto language since the time when it was not named as Pashto. The historical reason for this fact is that this alphabet is found even in the oldest scripts of Pashto poetry found. As for the articulation of this sound, it is palato-velar sound which is produced in the area between the hard palate and the velum but the tongue is closer to the velum more than it is towards the hard palate. This sound considered to be an alternative for the /ʃ/ sound of the 'soft' dialect of Pashto which is spoken in the southern regions of the Khyber Pukhtunkhwa Province. In the script of

Peshawari dialect the **ښ** alphabet is used for the words in which the soft dialect would use the **ش** alphabet. The difference of pronunciation between the words like Pukhtoon and Pashtoon, and Pukhto and Pashto is all because of the difference of the use of this alphabet. The Pashto speakers easily understand the difference and accept both the pronunciations. It is because of the fact that the southern accent is called the soft dialect that the foreign learners or speakers of Pashto understand and can easily pronounce the word Pashto whereas it is difficult for them to pronounce the word Pukhto. Pashto speakers, however, get both the sounds easily and use them according to the accent they speak at one time. Examples of the sound **ښ** /X/ in Pashto are Pukhto **ښ** **ښ** **ښ** **ښ** /puXtɔ/ i.e. the Pashto language and the code of life of the Pashto speakers. Another example is the word ‘Kha’ **ښ** **ښ** /XΔ/ i.e. good or ok.

### **The Pronunciation of the Fricative Consonants **ص** /s<sup>h</sup>/and **ظ** /z<sup>h</sup>/by Pashto Speakers**

These fricatives don't exist in English and the RP speakers have problems in pronouncing them. Therefore, no sample was found in RP phonetic inventory to compare these sounds with those of RP. The researcher had to rely on the spectrograms obtained from the speech of the Pashto speakers and give a descriptive analysis of these Pashto fricatives. The fricative **ص** /s<sup>h</sup>/is an Arabic phoneme which is denti-alveolar voiceless emphatic phoneme in Arabic, meaning that it is produced with the tip of the tongue touching the back of the upper teeth and the lamina touching the alveolar ridge. After the alveolar contact is complete, the back of the tongue is raised to the velum to create a velar effect for the completion of this phoneme. The back of the tongue does not touch the velum though but rather makes a closure with it to restrict the air passage for creating the friction. The case with this phoneme in Pashto is slightly different. The speakers of the Peshawari dialect pronounce it with slight variation. In Pashto it is not denti-alveolar but rather alveolar and velar. It is somewhat like the /s/ phoneme which is produced with the help of the tongue which touches the alveolar ridge and the air is released near the alveolar ridge on the tip of the tongue. However, it has the additional feature of velarization after the /s/ part is produced. The back of the tongue is raised towards the velum for producing the rest of the phoneme just like in the production of the Arabic phoneme. This production is made by the speakers of the Yusafzai dialect in formal speech though, and only in writing to differentiate the lexical item from the ones which might carry similar meaning to the one in which this phoneme occurs. For example in words like Sabar, **صبر** /sAbər/ i.e. patience, the **ص** is not written as **س** because the word becomes **سبر** which is incorrect and carries no meaning. This is because the word is borrowed

from Arabic and that is why the lexical item is supposed to be written in the phonemes of Arabic language. An interesting fact about the ص phoneme in Pashto is that it is written in the Arabic calligraphic form but the speakers do not pronounce it like it is pronounced by the Arabic speakers. The speakers of the Yusufzai dialect pronounce the ص more like /s/ which is incorrect in principles but the fact is that they either pronounce it as /s/ or with more slight variation by rounding the lips at the time of producing the phoneme to give the phonetic feature of the Arabic speakers. It is important for the sake of Pashto calligraphy to retain the original calligraphic form of the phoneme because the semantic value of the lexical items will be changed if this phoneme is replaced by any other, which is very much distinct in Arabic. Pashto words like صفت /sɪfət/, صنم /sə'nəm/, صابر /sa:bir/ etc are all words of the Arabic language which are in the lexical inventory of Pashto as well. Thus while writing such words the phoneme ص must be used for differentiating it with the rest of the phonemes.

As far as ظ /zʰ/ is concerned, in Classical Arabic and Modern Standard Arabic it is pharyngealized or valorized voiced alveolar fricative. That is why this phoneme is pronounced in Pashto not that emphatic or typical like the Arabic phoneme but rather more liquid and easy from the phonetic point of view. The Pashto speakers can easily pronounce the /zʰ/ phoneme. It is just the same as the /z/ phoneme which is alveolar voiced and is produced with the help of the tongue and the alveolar ridge. However, the velar feature is added to the /z/ sound when immediately after producing it, the back of the tongue is raised towards the velum but not touching it. Since the phoneme has been borrowed from Arabic therefore certain lexical items of Arabic which make use of this phoneme are part of the Pashto lexical inventory and while writing such lexical items, this phoneme is mandatory to be used as it is used in the Arabic lexical items. Thus the speakers of the Peshawari dialect know the way how to use this phoneme in written form. The spoken form of this phoneme is also not misunderstood by the educated listeners of the Peshawari dialect. The uneducated listeners might not misunderstand it too as long as the pronunciation is not highly typical of the Arabic phoneme. Examples of this phoneme in Pashto are, ظفر /zə' fɒr/ i.e. victory, ظلم /zɒləm/ i.e. cruelty, and ظالم /zɑ:lɪm/ cruel.

### **The Pronunciation of the fricative Consonant ث/θ/ and ذ/ð/ by Pashto Speakers**

The pronunciation of the fricative ث/θ/ was observed to be deviant in 18 out of 20 cases where most speakers made this fricative a /s/ fricative instead of ث/θ/. This is a voiceless dental non-sibilant fricative. It is familiar to English speakers as the 'th' in thing. The dental non-sibilant fricatives are often called "interdental"

because they are typically produced with the tongue between the upper and lower teeth, and not just against the back of the upper or lower teeth, as they are with other dental consonants. The case with the Pashto speakers of the Peshawari dialect is the latter though. Most speakers place the tip of the tongue between the upper and the lower teeth but the tip of the tongue is not conspicuous as is the case with the English and Arabic speakers when they pronounce this fricative. Pashto language uses this phoneme when making the calligraphy of those lexical items which have been borrowed from Arabic. For example Pashto words like ثمر /θʌmər/ i.e. ثبوت /θəbu:t/ i.e. proof, and ثابت /θa:bit/ i.e. to prove or complete.

As far as the pronunciation of ð/ð/ is concerned, this is a voiced dental fricative which is used in English as the ‘th’ sound in ‘this’. This sound is frequent in Pashto. The Arabic way of producing this phoneme is to put the tip of the tongue between the upper and the lower teeth and produce a voiced fricative. The speakers of the Yusafzai dialect however produce it with slight variation in that they place little part of the tip of the tongue between the teeth. Examples of this phoneme in Pashto are, ذات /ðɑ:t/, i.e. nature, ذكر /ðikər/ i.e. invocation and ذهين /ðəhi:n/ i.e. intelligent. 19 out of the 20 participant speakers pronounced this fricative as /z/. But usually in formal writing, or in formal conversation, particularly while talking about, or from, the Holy book, the Quran, the Pashto speakers pronounce the ð phoneme in the Arabic pronunciation.

### **The Pronunciation of the English fricative Consonants /f/ and /v/ by Pashto Speakers**

These fricatives /f/ and /v/ don't exist in Pashto and where RP speakers samples existed but the samples collected from Pashto speakers revealed that 20 out of 20 participants are unable to pronounce them in RP like manner. Whereas in English the /v/ is a voiced fricative which has widespread phonological distribution, the Pashto speakers pronounced this sound in the similar manner which the RP would pronounce as /w/, the rounded semi-vowel consonant. The researcher had to rely on the spectrograms obtained from the speech of the Pashto speakers and give a descriptive analysis of these Pashto fricatives. As for the voiceless fricative /f/ of English, the Pashto speakers pronounced the /f/ fricative in a different manner with slightly different place of pronunciation. The fricative produced by Pashto speakers was like the Arabic /f/ which was transcribed as ف /ɸ/ in the IPA. It is the voiceless bilabial fricative which is produced in the manner of fricative sounds by allowing the narrow puff of air through the upper and the lower lip without any blowing or voicing. If the lips are close enough to make a stricture for the narrow escape of the air stream, the /ɸ/ is pronounced for as long as the lower lip and the upper lip are close to each other. It is a type of consonantal sound, used in many spoken languages other than English such as Pashto, Japanese and Spanish etc.

For English-speakers, it is easiest to think of the sound as the /f/ sound made only with the lips, instead of the upper teeth and lower lip, or a blowing sound as is the case with the English phoneme /f/. Here it is worth mentioning that this phoneme exists in Arabic, Urdu and Hindi also. Arabic speakers put more force in the production of /ϕ/ and that is why the air stream is released with force and with a slight friction heard after the phoneme is produced. But the case with Pashto speakers is different. According to one research, conducted by Ghani Rahman, a comparative study of the consonants of English and Pashto, the writer says, ‘In informal speech it is pronounced as /p/, by Speakers of Pashto.’ The /ϕ/ phoneme is very problematic for the speakers of the Yusufzai dialect even for the educated speakers.

### **The Pronunciation of the fricative Consonant $\text{ɸ}$ / fɪ /, $\text{ç}$ /h/ and $\text{ɣ}$ /ʁ/by Pashto Speakers**

The fricative  $\text{ɸ}$  / fɪ / was pronounced correctly by 20 out of 20 speakers in an RP like manner but the fricatives  $\text{ç}$  /h/ and  $\text{ɣ}$  /ʁ/ don't exist in English in the same manner and place of articulation as they do in Pashto. 20 out of 20 participants pronounced this fricative in RP like manner.

The  $\text{ɸ}$  / fɪ / is a breathy-voiced glottal sound which is a voiced glottal fricative. It lacks the usual phonetic characteristics of a consonant but is not considered a vowel either. Particularly in Arabic and Pashto, it is realized more as a fricative consonant than a vowel, although it shares the feature of being voiced just like a vowel. The symbol in the International Phonetic Alphabet that represents this sound is /fɪ/ which is different than previous phoneme /h/ in that it is voiced. It is different than the English phoneme /h/ due to the fact that it is voiced. In many languages, [h] has no place or manner of articulation. Thus, it has been described as a breathy-voiced counterpart of the following vowel from a phonetic point of view. Its characteristics are also influenced by the preceding vowels and whatever other sounds surround it. Therefore, it can be described as a segment whose only consistent feature is its breathy voice phonation in such languages.

The case with Pashto is different though. In Pashto this phoneme has a real glottal constriction which makes it a fricative. The glottis is felt to be vibrating sufficient enough to make this sound having more consonant phonation rather than the phonation of a vowel. Its phonation type is breathy voiced, or murmured, which means the vocal cords are loosely vibrating, with more air escaping than in a modally voiced sound. As for the general features of this phoneme, it is an oral consonant, which means air is allowed to escape through the mouth only. Since this phoneme requires the passage of airflow over the tongue, the central–lateral dichotomy does not apply. Examples in Pashto are  $\text{هغه}$  /hə'ʁ/ i.e. he, she, that etc. and  $\text{هوا}$  /hə'wɑ:/ i.e. the air.

15 out of 20 participants pronounced the ح /h/ and ځ /ʃ/ in typically Arabic accent since these sounds have been borrowed from Arabic and the participants revealed that they read the Quran since childhood so they have no problem in pronouncing these Arabic fricatives.

Although traditionally placed in the fricative row of the IPA chart, /ʃ/ is usually an approximant. No language is known to make a phonemic distinction between fricatives and approximants at this place of articulation. There are certain phonetic features of this voiced pharyngeal sound which the researcher would rather call a fricative than approximant. If we go by the Arabic way of producing it, this is a fricative for sure. Though the Pashto speakers tend to produce it with certain features missing which we realize when the Arabic speakers produce this phoneme. As far as the manner of articulation is concerned, it is produced by narrowing the vocal tract at the place of articulation, so much as to produce enough turbulence in the airstream. Its place of articulation is pharyngeal, which means it is articulated with the tongue root against the back of the throat (the pharynx). Its phonation is voiced, which means the vocal cords vibrate during the articulation. It is an oral consonant, which means air is allowed to escape not through the nose but rather the mouth only. The sound is not produced with airflow over the tongue, therefore, the central-lateral dichotomy is not under consideration. Lastly, the airstream mechanism is pulmonic, and it is articulated by pushing the air solely with the lungs and diaphragm. Thus this phoneme is more a fricative than approximant if produced in the Arabic phonation. However, the Pashto speakers do not produce it with the same phonetic features that is why it can be placed in the category of approximants and even in vowels. Examples from Pashto are, عمل / ʃə'məl/ i.e. act, and عادت / ʃə'dət/ i.e. habit.

As far as the fricative ح /h/ is concerned, this is a voiceless pharyngeal fricative. It is produced slightly in the upper pharynx. It is often a whispered sound which resembles the English sound /h/ as in the word 'hat' but the English /h/ is voiced whereas this sound is voiceless. Most of the educated speakers of the Yusafzai dialect can easily pronounce this phoneme in the due manner but in informal speech some speakers tend to make it less pharyngeal and pronounce like the voiced glottal /ɦ/ in day to day speech. Examples in Pashto are حال / ħa:l / i.e. condition or the present tense, حکم / ħəkəm/ i.e. order, and حکیم / ħə'ki:m/ etc.

### **CONCLUSIONS AND RECOMMENDATIONS**

The acoustic contrastive analysis of the consonants of English and Pashto languages was the aim of this study. It also looked into the consonants of English which pose problems to the Pashto speakers. The study focused on the pronunciation of those English consonants which are not part of the Pashto

phonemic inventory and vice versa. This study observed certain features of consonant pronunciation by Pashto speakers speaking English which are typical of the native speakers of English. Yet certain features were observed which were deviations from the native speakers of English but were typical of Pashto language speakers. The study found that Pashto speakers with English background can pronounce fricative consonants like *س/s/*, *ز/z/*, *ش/ʃ/*, *ژ/ʒ/*, and *ه/h/* native like, though with slight variations in *ش/ʃ/*, *ژ/ʒ/* and the fricative consonants like *ف/ɸ/* was pronounced quite different by Pashto speakers than the English fricative */f/*. Similarly, the fricative consonants like *خ/χ/*, *بن/X/*, *غ/ɣ/*, *ص/s/*, *ظ/z/*, *ث/θ/*, *ذ/ð/*, and *ح/h/* exist in Pashto but are not found in English but which play a pivotal role in Pashto spoken and written language. The fricative *ع/ʕ/* was observed to be pronounced as a definite fricative by Pashto speakers as compared to the RP speakers who rather pronounce this sound only when they goltalize certain vowels and consonants. It is suggested for researchers as well as English teachers that Pashto natives as English language learners should be properly trained to acquire correct English pronunciation.

The evidence from this study suggests that Pashto speakers of English had no knowledge and training about the phonetics and phonology of English and Pashto languages but due to studying the English language for a considerable period of time they had heard English consonants from their teachers and they were able to pronounce certain English consonants in a typical native like manner. Similarly, the students had difficulty in the pronunciation of those consonants which were either pronounced in a deviated form by their teachers over the course of their academic careers or they faced difficulty in the pronunciation of those consonants due to mother tongue influence. The study's conclusion supported Lado's (1957) claim that the elements in a foreign tongue which are similar to the native tongue will be easy for the learners and those dissimilar will be difficult for them to learn. Their deviated pronunciation can be accounted for by the fact that they have not been properly taught the pronunciation of the sounds of the target language in a proper way or through sufficient practice by their teachers who, in most cases, were not natives of English and most of them were from their own native tongue Pashto.

### **Implication of the Study**

This study highlighted the problematic English consonants for Pashto speakers of English and the findings show why the Pashto speakers of English fail to acquire the correct English pronunciation. The present study provides some insight and theoretical assumptions for researchers as well as language teachers. The study is not only helpful for L2 learners of English but also for the phonetic description of

both Pashto and English languages. The present study is also beneficial for the comparative linguistic study of languages.

Learning correct pronunciation of English consonants is a huge task for all the non-native learners of English. This is an open area of research and proper attention. This study suggests the following for the teachers and learners of English:

- The teachers of English at BS English level in particular, and at SSC/O Levels as well as Fsc/A Levels in general, need to focus on learning correct pronunciation of English themselves by having exposure to the pronunciation of RP through listening to the BBC English on the media and news channels, and try to find out the exact forms and shapes of consonants as pronounced by the natives of English. There can be exclusive sessions to use such audio/video aids for enhancing the listening skills of the learners at this level.
- The teachers of English in Khyber Pakhtunkhwa should identify the weak areas of their pupils in class rooms and help the pupils identify their mistakes in pronouncing English consonants.
- The teachers after identifying weak areas should develop strategies to help the pupils overcome their weaknesses in pronunciation and replace the incorrect sounds by correct English consonants in order to achieve an optimum level of intelligibility on their part for communicating with the native speakers of English. The correction strategies might vary from classroom to classroom and from student to student but the teachers should adjust according to the needs of the students and the resources available in the classrooms.
- The researchers in the area of phonetics and phonology should put forth a detailed and elaborated study of English consonants for Pashto speakers of English. It is through research that weaker areas of the Pashtun students can be identified and addressed in a proper manner.
- Other studies should throw some light on the relevant segmental features of both English and Pashto such as diphthongs, and triphthongs and also elaborate upon the stress patterns of English for Pashto speakers.

Researchers can take a bigger sample on the pattern of the current study and may included natives of Pashto from different regions of the country in order to reach more generalizable conclusions and recommendations after their research.

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**Annexures**

**Annexure 1**

**Table 1: List of participants with regions**

S. No	Name of Participant	Area (Village)
1	Student A	Dargai (Male)
2	Student B	Dargai (Female)
3	Student C	GarhiUsmaniKhel (Male)
4	Student D	GarhiUsmaniKhel (Female)
5	Student E	Haryankot (Male)
6	Student F	Haryankot (Female)
7	Student G	Kharkai (Male)
8	Student H	Kharkai (Female)
9	Student I	Kot (Male)
10	Student J	Kot (Female)
11	Student K	Mehrdy(Male)
12	Student L	Mehrdy (Female)
13	Student M	Meina (Male)
14	Student N	Meina (Female)
15	Student O	Skhakot (Male)
16	Student P	Skhakot (Female)
17	Student Q	Wartair (Male)
18	Student R	Wartair(Female)
19	Student S	Wazir Abad (Male)
20	Student T	Wazir Abad (Female)