

Contrastive Analysis Of Segmental Features Of English And Urdu Languages

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Abstract

The current paper attempts to present a contrastive analysis of segmental features of English and Urdu Languages. It plays a significant role in second language learning and teaching. Language learning involves the transfer of habits of the native language. It is necessary for the program planners, material producers and language instructors to study and understand the similarities and differences between source and target languages. This study makes a contrastive analysis of English and Urdu languages at segmental levels of Phonological units such as sound pattern, allophonic variation, aspiration, nasalization, etc. In the course of this study, the researchers employed mixed-method approach where data were drawn from archive and then analyzed side-by-side revealing their similarities and differences. This was done in Praat software by observing the acoustic features of target phonemes of the two languages. The results of the study demonstrate that although Urdu and English have some similar phonemes, the sounds do not behave the same way in the two languages. Additionally Urdu has more number of phonemes as compared to English. Differences in the phonological features between the two languages result in challenges faced by the Urdu speakers in learning English.

Key Terms: Contrastive analysis (CA), Segments, English sounds, ESL learners, Urdu sounds.

Introduction

As stated by Encyclopedic Dictionary of Applied Linguistics (1999), a contrastive analysis outlines the structural differences and similarities of two or more languages. As an area of enquiry, contrastive Analysis is concerned with the values and uses of such descriptions (Johnson, K. & Johnson, Helen, 1999:203). Crystal (1992) has stated that Contrastive Analysis or Contrastive Linguistics is the identification of points of structural similarity and difference between two languages (Crystal, 1992:83). When the child acquires his first language, he cultivates his native language behaviour. Progressively this becomes stronger and stronger. In learning the second language, the learner is influenced very much by his first language behaviour. Furthermore if the structure of two languages is the same, no difficulty is expected. However if the structure of the second language differs from the first language then one can expect both difficulties on learning and error in performance.

Segmental and Supra-segmental feature are definitely unavoidable in ESL and EFL learning environment. It is evident that both segmental and supra-segmental features of languages have much to do with the intended meanings of speakers. However the present study is more

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concerned with the segmental rather than the supra-segmental properties here. So the ESL and EFL learners face various challenges in their attempt to achieve Standard English speech. Even though linguists have been discussing the different issues relating to language studies, they have consistently agreed that the L1 significantly influences the acquisition of the L2 phonology. Consequently some pronunciation difficulties being faced by ESL learners at the segmental level are quite attributable to the phenomenon of negative transfer where sounds of L1 are inaccurately transferred into the target language.

The threat of segmental transfer errors is so disadvantageous to the success of ESL learning that they make expressions weird or even incomprehensible especially when the listeners do not share an L1 with the speaker. To avoid this, ESL learners must master the L2 sounds. Grasping the L2 sounds means having firm consideration of both the phonetic and phonological features of the sounds. The drawbacks are the distributions and realizations of the various phonemes. Sometimes, some phonemes in the ESL learner's L1 may be just allophones in English. For example, /l/ and /ɫ/ are full phonemes in Russian language but both are allophones of /l/ in English. Some allophones of the ESL learner's L1 may also be phonemes in English. For instance /n/, /ŋ/, /d/ and /ð/ are allophones in Japanese and Spanish correspondingly but all the four are full phonemes in English. Consequently Japanese and Spanish learners of English are very likely to distribute the sounds erroneously and this could lead to incomprehensibility. Robert Lado, a renowned linguist, originated an approach to this problem. He recommended that the two languages should be compared so that knowledge of the similarities and differences between the two would go a long way in providing solutions to the learning problems. Taking into consideration the two languages in question Urdu and English are two different languages. Therefore the Urdu speakers also learn English as a second language (ESL). Common to non-native speakers of English such as the Urdu, it is unavoidable for the speakers' L1 (Urdu) to interfere with their L2 (English). Keeping this in mind, the present study examines the similarities and dissimilarities by comparing and contrasting the segmental features of the English and Urdu languages, as well as also predicting possible areas of learning difficulties. So learning a language then is visualized fundamentally learning a procedure to overcome these difficulties. In other words, learning an L2 means changing one's L1 language behaviour to that of the speaking of the target language. Here the contrastive analysis will be beneficial. It will determine the differences at segmental level of L1 and L2 and will predict the difficulties that the learner will have.

Statement of the Problem

All human languages do not share exactly the same sound system. They have different phonemes which do not behave exactly the same in all languages. Studies have revealed that languages may share some phonemes but there are more differences than similarities. For instance English has 24 consonants, Cantonese has only 19 and it does not have any voiced plosives or fricatives. The Cantonese speakers would give /men/ for /mæn/ because the /æ/ is missing in the Cantonese inventory. Problems of this nature are equally found in the speech of the learners of English, and this regards some of their expressions entirely difficult/incomprehensible. Nevertheless, explorations on the sounds of the Urdu language have been carried out for long but the focus of earlier studies has been to recognize and define the sounds of the language and not to compare or contrast the sounds with those of English. Therefore, a research of this nature is highly significant in order to highlight areas of phonological divergence between the two languages. This would help the Urdu learners of English and researchers become aware of the problematic areas when it comes to learning to pronounce English words correctly by the Urdu speakers. However, results of this study would assist researchers and predict the areas of English pronunciation difficulties for the Urdu speakers that are mostly caused by the differences between the English and Urdu phonemes

and the transfer of the phonological features of their L1. Teachers of English as a second language would also find the outcomes of this study very supportive.

Objectives of the Study

The overall aim of the study is to recognize the similarities and differences between the segmental features of English and Urdu languages. The other objectives are:

1. To identify the similarities and differences between the segmental features of English and Urdu languages.
2. To predict learning difficulties among the Urdu ESL learners based on this comparison.

Significance of the Study

It is understood that the interference by the segmental features of the L1 affects the success of L2 learners. Due to this interruption L2 users may face difficulties in learning L2 sounds. This occurs in both spoken and written usages. This study is concerned with the phonological interference. By phonological interference is meant the instances of transfer (negative transfer) that prevent effective acquisition and performance. All this happens because the segmental features of L1 and L2 are not similar or merely they behave differently in different environments. Thus, it is important that studies should pay attention on the importance of segmental features of L1 and L2 in order to highlight the pronunciation difficulties among the Urdu ESL learners. This study will definitely facilitate the Urdu ESL learners to attain good command in English pronunciation. This study is highly significant because its focus is to unravel the problematic areas related to phonemes faced by the Urdu ESL learners.

The outcomes of this study would optimistically give confidence to University students to learn L2 sounds with correct articulation. The study will also facilitate language teachers and researchers with a useful way to develop their understanding in L2 phonology.

Literature Review

Urdu is a Central Indo-Aryan language that belongs to the Indo-European language family. Furthermore, Urdu is the national language and one of the official languages of Pakistan and it is a state language of India. It is also spoken in Afghanistan, Bahrain, Bangladesh, Botswana, Fiji, Germany, Guyana, India, Malawi, Mauritius, Nepal, Norway, Oman, Qatar, Saudi Arabia, South Africa, Thailand, United Arab Emirates, U.K., USA, and Zambia. (UCLA Language Materials Project). Worldwide there is about 100 million Urdu speakers. Around 11 million speakers live in Pakistan, almost 50 million speakers live in India, and more than 250,000 speakers live in the United States. Urdu language is not yet completely discovered language as compared to English but a lot of work has been done in the domain of phonology of Urdu language. The sound inventory of Urdu language is still debatable among researchers. According to Kachru (1990), there are seven long oral vowels, and three short oral vowels, and according to Bokhari (1985; 1991) there are seven long oral vowels, but seven short oral vowels. Bokhari (1985; 1991) contains many allophones of the corresponding long vowels as discussed by Kachru (1990). Kachru (1990) maintains that the front low cardinal vowel [æ] exists as front middle low vowel [ɛ] in Urdu. As a result the back low cardinal vowel [a] is shifted to the low center, making it [a]. Khan (1997) also agrees with the long and short vowel distribution of Kachru(1990). Bokhari (1985; 1991) and Khan (1997) list ten nasalized vowels including five short and five long nasalized vowels.

Kachru (1990), on the other hand, has not listed any nasalized vowel, but mentions in the text that oral and nasal vowels contrast, and that nasalization is distinctive (Kachru, 1991, p. 55). Collectively Kachru (1990), Bokhari (1985; 1991), Khan (1997), and Hussain (1997) have listed forty-three (43) consonantal sounds of Urdu out of which twenty-eight (28) sounds are agreed upon by all the above authors. Kachru (1990) lists 37 consonants and has missed [ʔ, h,

r, n, m, l]. Hussain (1997) lists 36 consonants and has missed [ŋ, ʈ, r, m, n, l, q]. Bokhari (1985; 1991) lists 36 consonants and he has missed [f, ʃ, ʒ, z, q, x, r]. Bokhari misses interestingly many basic sounds, which are listed by Kachru and Hussain. Khan (1997) lists, most of all, 42 consonants and has missed only one consonantal sound [ŋ]. Overall, the controversial consonantal sounds are [ʔ, ʈ, r, n, m, ŋ, l,].

The English language undertakes different positions in different parts of the world and different linguistic communities. In addition to the native speakers who use it as an L1, many people use it as a Second or Foreign language. Nevertheless, the ESL and EFL users of English frequently face identical problems. These problems or difficulties are mostly consequences of L1 interference in the L2 performance. The L1 is the immediate apparent source of error among the ESL learners.

Behaviorists and Structural linguists in the 1950's and 1960's founded the theoretical foundations of the Contrastive Analysis (CA) and since then, this approach has been employed in the second language acquisition studies. Not many works have been done on contrastive analysis of English and Urdu phonology. Therefore the present study will fill an important gap in research on the utilization of Contrastive Analysis as a frame work to highlight the similarities and dissimilarities of segmental features of English (L2) and Urdu (L1) languages.

Theoretical Framework of the Study

This study draws its theoretical foundations from the Contrastive Analysis (CA) theory founded by the Structural Linguists and Behaviorists of the 1950's and 1960's. Supporters of this theory include Lado and Fries. These scholars were concerned with why some elements of the L2 are more difficult to acquire than others. This approach describes the systems or codes of languages by comparing them with others and predicting areas of difficulties so that the L2 learning difficulties are eased. Lado, (1957) states that the L1 grammatical structure is transferred into the L2 and this causes problems to the L2 learner. He adds that although the similar structures would assist learning (positive transfer), the dissimilar structures would certainly prevent learning (negative transfer/interference). To Lado hence, the best approach to handle the threats of negative transfer (retroactive transfer) is to compare the systems/codes of the L1 and L2. This is the best way to ease the L2 learning difficulties.

On the other hand, it is well to understand that the CA is important to L2 learning in three major areas: linguistic studies, language teaching and language assessment. It is on this background that the supporters of CA claim that language teaching materials that are prepared based on the careful comparison of the scientific descriptions of L1 and L2 are the most effective. Consequently, the followers of CA believe that when the systems of both L1 and L2 are comparatively described, areas that would facilitate learning or pose difficulties to the L2 learner would be diagnosed. This would go a long way in helping the learners and teachers overcome the challenges in L2 learning or teaching. This study employs the CA theory to examine the differences between the segmental phonemes of English and Urdu languages in order to measure the confrontational aspect of the situation on the Urdu ESL learners.

METHODOLOGY

This study employs qualitative research. It, like other contrastive analyses, is a secondary research. In the course of this study, the researchers employed desk research where data were drawn from archive and then analyzed side-by-side revealing their similarities and differences. The study mechanically lends itself to this approach because the segmental phonemes of English and Urdu languages have already been recognized and defined by earlier researches. The emphasis here was to compare and critically analyze the two classes of phonemes and see how being familiar with the Urdu phonemes can affect learning the English phonemes.

Different segmental features of Urdu and English languages have been compared and their distinctive characteristics have also been highlighted to exhibit the specificity of the languages.

There are many accents of the two languages prevailing in their respective areas. Therefore, for this study, the researcher simply took the Standard accents of the two languages —English and Urdu. Although the English language has many dialects and accents but this study focused on the RP (Received Pronunciation). This is because the RP is the accent being studied and used worldwide, not just in the areas where English is used as a first language. The other accents of English speech like Scottish, Irish, Welsh, Estuary, GA, Cockney, etc., were not focused in this study. Most publications on the English phonemes are also based on RP and not any other accent. On the other hand, standard accent of Urdu is taken into consideration. This was because the Standard Urdu is the accent being studied and used on the media locally across Azad Kashmir, Pakistan.

Data Collection and Analysis

The data were collected from the archives available to researcher. The inventories of both the languages were compared and contrasted. The more common and comprehensive inventories of Urdu and English were selected for contrastive analysis. 4 tables were included in order to compare and contrast the segmental features of Urdu and English languages to highlight the similarities and dissimilarities of sounds in both languages through Contrastive Analysis as a framework.

Table I: English RP Consonants

	Bilabial	Labio-Dental	Dental	Alveolar	Post Alveolar	Palatal	Velar	Labio-velar	Glottal
Plosive	p b			t d			k g		
Fricative		f v	θ ð	s z	ʃ ʒ				h
Affricate						tʃ dʒ			
Nasal	m			n			ŋ		
Lateral					l				
Approximant						r	j	w	

Table 1 shows English consonant sounds. There are 24 consonants including 6 plosives, 9 fricatives, 2 affricates 3 nasals 1 lateral and 3 approximants. The above table also demonstrates the places and manners of articulation of different consonants. Furthermore manners of articulation are listed vertically and places of articulation are stated horizontally.

Table 2: Urdu Consonants

	Bilabial Vls Vd	Labio-dental Vls Vd	Dental Vls Vd	Alveolar Vls Vd	Retroflex Vls Vd	Palato-Alveolar Vls Vd	Palatal Vls Vd	Velar Vls Vd	Uvular Vls Vd	Glottal Vls Vd
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Stops: Unasp Asp	p b ph bh		t d th dh		ʈ ɖ ʈh ɖh			k g kh gh	q	ʔ
Nasals	m		n					ŋ		
Lateral				l						
Trill				r						
Flaps: Unasp Asp					ɾ ɽh					
Fricatives		f		s z		ʃ ʒ		x ɣ		h
Affricate							tʃ dʒ tʃh dʒh			
Semi-Vowels		v					y			

Table 2 displays Urdu consonant sounds. There are 39 consonants including 18 stops or plosives, 8 fricatives, 4 affricates 3 nasals 1 lateral, 1 trill, 2 flaps and 2 semi-vowels or approximants. The above table also exhibits the places and manners of articulation of different consonants. Furthermore manners of articulation are recorded vertically and places of articulation are indicated horizontally. There is a controversy about the size or numbers of consonants of Urdu language. Most of the researchers agreed at the above table. Due to this reason it is included in this study for comparison and contrast. The stops and nasals are articulated at five different places, being classified as labial, dental, retroflex, palatal and velar. Every series of stops includes voiceless and voiced consonants, un-aspirated and aspirated aspects.

The Vowels of English

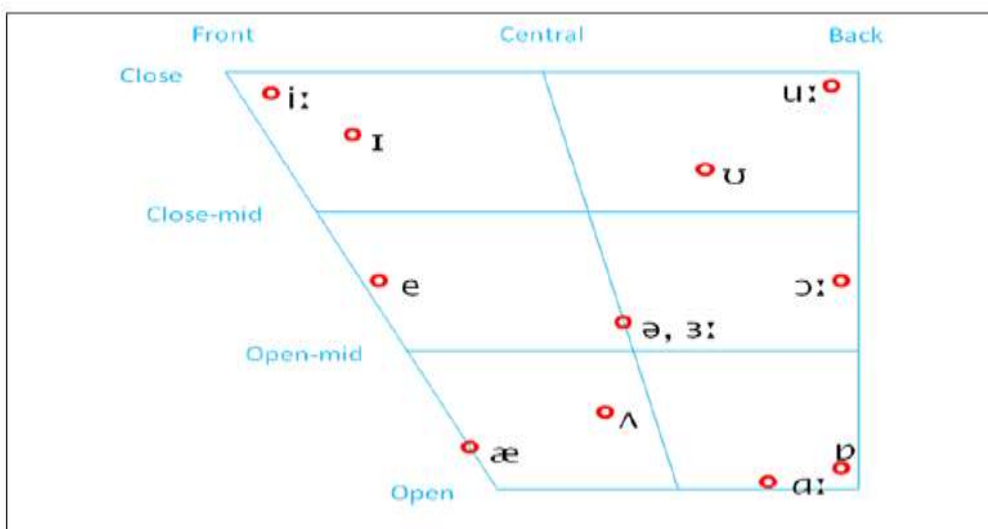


Table 3: English Vowels

The English language has a total of 20 vowels. Out of these, 12 are exhibited in table 3. These 12 vowels are recognized as pure vowels. The English 12 pure vowels include 7 short vowels: /i/, /e/, /æ/, /ɒ/, /ʌ/, /ə/, /ʊ/ and 5 long vowels: /i:/, /a:/, /ɔ:/, /ɜ:/, /u:/. Eight are diphthongs. The vowel system of English is so complex that it is among the less common among languages and it is absolutely predictable that ESL learners will have trouble in learning them.

Table4: Urdu Vowels

	Front	Central	Back
High	i ɪ		ʊ u
High-mid	e		o
Mid		ə	ɔ
Low-mid	ɛ		
Low			ɑ

Urdu has a 10 vowel system composed of 3 lax and 7 tense vowels. Table 4 shows that there are 3 lax vowels /ɪ, ʊ, ə/ which are phonetically short and 7 are tense vowels /i, e, ɛ, u, o, ɔ, ɑ/ which are phonetically long vowels. /ɪ/ is slightly lower and more centralized than /i/, /ʊ/ is slightly lower and more centralized than /u/. All have nasal forms. Oral and nasal vowels are contrastive.

Comparative Study of Segmental Features of English and Urdu Languages

The segmental features deal with the vowels and the consonants. The English language has a total of 44 phonemes. All of these phonemes are produced using the pulmonic airstream — air movement initiated by the lungs. There are 24 consonants and 20 vowels. Out of the 20 vowels, 12 are pure vowels and 8 are diphthongs. There are 48/47 sounds in Urdu language. Urdu has 38/37 consonants and 10 vowels including 2 diphthongs.

Consonant System

English has 6 stops/plosives while Urdu has 18 stops. The pattern of stop/plosive sounds in English is /p t k / and / b d g/. Here, the contrast is between voiceless and voiced (voicing). Secondly, there are three points of articulation bilabial, alveolar and velar. In Urdu the sound pattern of stops is / p p^h t t^h ʈ ʈ^h k k^h q ʔ / and / b b^h d d^h ɖ ɖ^h g g^h/. Here the contrast is between voiceless and voiced and between aspirated and unaspirated sounds. Secondly, there are five points of articulations Bi-labial, Dental/Alveolar, Retroflex, Palatal and Velar. In English /p/ and /b/ make a pair but in Urdu the bilabial sound has four manifestations: /p, p^h, b, b^h/. For instance Phoneme /p/ is voiceless, unaspirated, bi-labial, stop. It occurs in all the three positions (initially, medially and finally) in words. Phoneme /p^h/ is voiceless, aspirated, bi-labial, stop. For example, Phoneme /p^h/ as [Phə l] ‘fruit’ Phoneme /p/ in ‘[pəl] ‘moment’. In Urdu /p/ contrasts with /p^h/ but in English it does not contrast with /p^h/. These two sounds are simply allophonic variations in English language.

In English, /p/, /t/, /k/ are aspirated such as ([p^h], [t^h], [k^h]) when they occur initially in stressed syllables. [p-] voiceless bi-labial stops aspirated, when it occurs initially in stress syllables. /p/ [-p-] voiceless bi-labial stops unaspirated, when it occurs in medial position. [-p] voiceless bi-labial stop is unreleased when it occurs in final position.

In an allophonic or narrow or phonetic transcription, the symbols used to represent this allophone is [ph-] as in pen, pin, paint, please, pure, etc. [-p-] as in span, spin, space, upper,

speech, speak, etc. [-p=] as in cup, pipe, peep etc. Hence, in English, the value of phoneme /p/ is different from the phoneme /p/ in Urdu language.

In English, phoneme /t/ [t^h] is aspirated when it occurs initially in a stressed syllable as in word like ten, tin, tie, town, ton, tune, team, term, etc. In English, phoneme /t/ [-t-] is unaspirated when it occurs in unaccented syllables and in accented syllables preceded by /s/. For example, phoneme /t/ in unaccented syllables: utter, daughter, latter, water, etc. Phoneme /t/ preceded by /s/ in stain, stamp, and steam. In English, phoneme /t/ [-t] is not released audibly if it occurs finally in a word. Such as neat, net, cut, pocket, bet, heart, late, set, seat, etc.

Similarly, in English, Phoneme /k/ in such a way [k^h] is aspirated when it occurs initially in a stressed syllable. For example can, cap, cave, class, coal, cat, cash, etc. In English, Phoneme /k/ [-k-] is unaspirated when it occurs in unaccented syllable (i.e. medial position in a word) e.g. scan, scale, skin, uncle, particle, weaker, market, lacking etc. In English, phoneme /k/ [-k] is not released audibly when it occurs in word final (final position) e.g. back, black, bank, lack, weak, work, thick, pick, lake, lock, dock, etc. Such differences are not noticeable in Urdu language. Therefore, the systematic distribution in both the languages is different.

Aspiration is a universal feature of Indo-Aryan languages. Urdu is one of the Indo-Aryan languages which contain this feature. In English language aspiration is allophonic and it does not change meaning. In English /p t k/ are aspirated when they occur at the beginning of stressed syllables. On the other hand aspiration in Urdu language is phonemic and it changes meaning. Furthermore these phonemes in Urdu language occur in three positions i.e. initial, medial and final. This contrastive segmental feature poses a great area of difficulty for Urdu learners as L2 of English.

/q/ is a uvular stop in Urdu but this sound is not present in English sounds. Moreover the glottal stop [ʔ], which is not a significant sound in English, is a full phoneme in Urdu. So Urdu speakers as L2 learners (English) may confuse these sounds with English /k/ and feel difficulty in articulation because /q/ and /k/ are not articulated at the same place. /p t k g/ are similar sounds in both languages and they are easy for L2 learners.

Fricatives: The English fricative consonants / f v θ ð s z ʃ ʒ h / are 9 in number while Urdu has /f s z ʃ ʒ x r h/ 8 fricatives. Therefore the sounds /v θ ð / are missing in the inventory of Urdu language from the category of fricatives and /x r/ velar sounds are not present in the inventory of English fricatives. Both languages have 5 points of articulation. So the sounds which are same in both languages are easy to learn but the sounds which are not similar in both inventories are difficult to learn for L2 learners.

From a point of view, ESL learners whose L1 (Urdu) lacks /θ/ and /ð/ use /t/ and /d/ instead. The English /s/, when used after a voiced sound as in needs and begs, assumes voicing and is therefore realized as /z/. But the Urdu language lacks this phenomenon. Therefore L2 learners face difficulty while learning it. Whereas the English /z/ is sometimes 'in spelling (as in lose and nose), the Urdu /z/ is always written as 'z'. The /ʃ/ sound in English is represented by different combination of letters like 'sh' –shop, 'ch' –chef, 'tion' – nation 'ss' –mission etc., the Urdu /ʃ/ is always 'sh'. So such differences highlight the areas where L2 learners face difficulty in learning English sounds. The sound /h/ does not occur word-finally after vowels in both the languages.

Affricates: English language has two affricates only /tʃ dʒ/ but Urdu language has 4 affricates /tʃ dʒ tʃ^h dʒ^h/. English affricates pair with /tʃ dʒ/ but Urdu affricates pair with /tʃ tʃ^h / and /dʒ dʒ^h/. English affricates are not aspirated but Urdu language has independent affricates such as /tʃ^h dʒ^h/. Aspiration is phonemic in Urdu but not in English. As a result L2 learners face difficulty in learning various sounds and aspiration. The affricates in Urdu are palatal but English affricates are palato-alveolar or post-alveolar but it is a valuable difference because in both languages points of articulation are common. The overall awareness about different places and manners of articulation is involved in both languages.

Nasals: English has 3 nasal sounds /m n ŋ / while Urdu language has also 3 nasals /m n ŋ /. There is only a difference of point of articulation of /n/. /n/ is alveolar in English but dental in Urdu. Therefore little difficulty may be predicted in learning English nasals for L2 learners. /m/ and /n/ can both occur in all positions while /ŋ/ does not occur in initial position in both languages. Nasal sounds are all voiced in both languages.

Laterals: The lateral sound in both English and Urdu is the /l/. This sound occurs in English before a vowel or /j/ as in look, live or value, it is clear [l] and when it occurs after a vowel as in kneel, full or skill, or before another consonant as in feels and deals, it is dark [ɫ]. This distinction is not found in Urdu language. Therefore L2 learners may take it difficult. The English /l/ is sometimes silent as in palm, calf and should but the Urdu /l/ is always pronounced. **Approximants:** The English language has three approximants but Urdu has only two. The English approximants include /r j w/, while the Urdu approximants are /v j /. So /w/ is not present in Urdu sounds. Consequently it is predicted difficulty for L2 learners to differentiate between /v/ and /w/. For example L2 learners pronounce wine as vine and in this way they confuse /w/ with /v/.

Trill/roll and Flap: The English RP does not have any Trill or Flap but the Urdu language uses the trill /r/ and the Flap /ɾ/. The English /r/, which is a post-alveolar approximant, contrasts with the Urdu /r/, which is an alveolar trill/roll. The Urdu /ɾ/ is unique and is not found in English. The Urdu /r/ is articulated in two ways /r/ and /ɾ/ and like the other ESL users, the Urdu learners too will face problem in not pronouncing the sound. This is because while in English it occurs only before vowels, in Urdu it also appears after vowels and it is always pronounced. But the English /j/ is similar to that in Urdu.

The silent letters are usually perplexing because Urdu language has very rare such occurrences. However silent letters in English are found in all the three positions. For example;

Initial Position: Psychology, Psalm, Wrap

Medial Position: Debt, Calm, Adjustment

Final Position: Autumn, Condemn

There are many words in English language which have silent letters but Urdu does not have so the L2 learners unknowingly pronounce these silent letters which obviously make them mispronounce the words. For example:

Knife, knowledge, knave, kneel have k silent which should not be pronounced at all. Therefore L2 learners face problems in learning English sounds.

Multiple Sounds of the Same Letters: It is also a noticeable difficulty in learning L2 sounds that there are many letters and combinations of letters which produce numerous sounds at different places. For example:

‘ch’ produces three sounds as /tʃ/, /k/, /ʃ/. Similarly, ‘c’ produces two sounds as /s/, /k/. Hence it occurs rarely in Urdu language.

Letters in English spellings do not correspond with their sounds. One letter ‘a’ gives different sounds in father, fate, late, cat, fall and the letters ea; in beat, heart, break, ear, learn, bread gives different sounds; ‘u’ in but and put causes a lot of confusion to L2 learners.

Vowel Sounds system

The English language has a total of 20 vowels. Out of these, 12 are pure vowels and eight are diphthongs. The English 12 pure vowels comprise of 7 short vowels: /i/, /e/, /æ/, /ɒ/, /ʌ/, /ə/, /ʊ/ and 5 long vowels: /i:/, /a:/, /ɔ:/, /ɜ:/, /u:/. The vowel system of English is so complex that it is among the less common among languages and it is absolutely predictable that ESL learners

will have trouble in learning them. On the other hand Urdu has 10 vowels including two diphthongs: /i:/, /i/, /e:/, /e/, /ɔ:/, /ɒ/, /a:/, /a/, /u:/, /ʊ/. Vowels in English are uttered with different positions of lips, tongue and jaws but in Urdu vowels are realized in the natural position of the oral cavity. The inventories of both languages exhibit a great difference as for as number and size of the sounds are concerned. In English, there are 20 vowels while Urdu possesses 10 vowel sounds. Therefore the difference of 10 vowel sounds is highlighted apparently through this contrastive analysis. The present study of the differences in Urdu and English sound systems would help in diagnosing problematic sounds for Urdu speaking learners of English. The back vowel /ɒ/ is replaced by /a:/ in Urdu. For example;

English	Urdu
a. /ʃɒt/	/ʃa:t/ 'shot'
b. /lɒri/	/la:ri/ 'lorry'

Like /ɒ/, English back vowel /ɔ:/ is also replaced as /a:/ or /o:/.

English	Urdu
a. /bɔ:d/	/bɔ:rd/ 'board'
b. /rɪpɔ:t/	/rɪpɔ:rt/ 'report'
c. /bɔ:l/	/ba:l/ 'ball'
d. /ʃɔ:l/	/ʃa:l/ 'shawl'
e. /kɔ:l/	/ka:l/ 'call'
f. /drɔ:(r)/	/dɔ:ra:z/ 'drawer'
g. /wɔ:kə(r)/	/va:kə(r)/ 'walker'

From the above data it is highlighted that the vowels which are not found in native language are the hurdle in the way of learning target language such as /ɒ/ in English but not found in Urdu so the L2 learners face difficult to pronounce them. Urdu lacks English central long vowel /ɜ:/. As it is absent in Urdu phonology so L2 learners confuse and replace it with the closest sound schwa /ə/ followed by /r/ sound. For example;

English	Urdu
a. /ɜ:bən/	/ərbən/ 'urban'
b. /tʃɜ:tʃ/	/tʃərtʃ/ 'church'

Above examples indicate that in all contexts /ɜ:/ is a difficult sound for L2 learners. Urdu speakers replace it with /ə/ including /r/ which is not pronounced in RP before consonant or after vowel. This variation may cause difficulty for Urdu speakers.

Diphthongs and Triphthongs: This is an area of great differences between English and Urdu language sounds. As compared to English, Urdu does not have diphthongs or triphthongs. English diphthongs/triphthongs are replaced either by a single phoneme or lose its second element and the first element is lengthened. For example;

English	Urdu
a. /deɪt/	/de:t/ 'date'
b. /weɪst/	/ve:st/ 'waist'
c. /tʃeɪn/	/tʃē:n/ 'chain'

Current data reveal that /eɪ/ is not present in Urdu language so it is equally substituted in Urdu. As it is obvious from the above examples that English closing diphthong /eɪ/ is always confused with /e:/ where second element of English diphthong is deleted and the first element is lengthened.

/aɪ/
English closing diphthong /aɪ/ is replaced by Urdu /ae/. It must be noted that Urdu lacks /aɪ/ (some sources present /aɪ/ and /ae/ as diphthongs of Urdu (Sarwar et al., 2003), but the existence of diphthongs in Urdu is still controversial and we need more studies to determine their status. /əʊ/

As this diphthong is also not found in phonemic inventory of Urdu thus it also undergoes certain modifications by Urdu speakers while learning English diphthongs.

English	Urdu
a. /həʊtəl/	/ho:təl/ 'hotel'
b. /kəʊtʃ/	/ko:tʃ/ 'coach'
c. /kəʊn/	/kō :n/ 'cone'

Preservation of English triphthongs is also a difficult phenomenon to be grabbed by Urdu language as it does not have triphthongs (Khurshid et al., 2003).

English	Urdu
a. /faɪə(r)/	/faer/ 'fire'
b. /waɪələs/	/vaerles/ 'wirelesses'

According to the above examples English triphthong /aɪə/ is not present in Urdu language. So it is always substituted with /ae/ in Urdu. The addition of /r/ can also be noticed, although it is optional in English but it is pronounced in Urdu because Urdu speakers are used to produce /r/ sound at initial, medial and final positions (Hussain, 2011; Mahmood et al., 2011).

Nasalization is an important phonetic feature of Urdu. All the corresponding Urdu vowels can be nasalized but it may not occur in all positions. Nasalization can also be phonemic in Urdu because it is responsible for the change of meaning. It is distinctive and functional because the absence or presence of nasalization changes the meaning of the word. On the other hand nasalization is not phonemic in English. Therefore L2 learners may face problems in learning vowels. In Urdu there are 8 pure vowels. All these can be nasalized.

1. Front short vowel /i/, e.g.:- /sīNghar/ 'beautification'
2. Front vowel /i:/, e.g. /sīNg/ 'horn'.
3. Front vowel /e/, e.g. /meNdak/ 'frog'
4. Central vowel /a/, e.g.:- /haNsna/ 'to laugh'
5. Central vowel /a:/, e.g. /māN/ 'mother'
6. Back short vowel /u/, e.g.:- /mūNh/ 'mouth'
7. Back vowel /u:/, e.g.:- /ūNt/ 'camel'
8. Back vowel /o/, e.g.:/ghoNsla/ 'nest'

Furthermore nasal vowels exist in Urdu language as separate phonemes not as allophones of normal vowels.

Gemination is common in Urdu and it means doubling of the consonant sound but English language lacks it. Thus it is predicted on the basis of analysis that L2 learners may confuse this phenomenon with double letters in spelling and mispronounce the words in target language. Some examples of gemination from Urdu language are below;

- a. pattaa – leaf
- b. abbaa – father
- c. dajjaal -- anti-Christ
- d. Dabbaa – box
- e. munnaa -- young boy/baby

These are some of areas for contrast at the segmental level of Urdu and English languages. Further areas may be explored to highlight the similarities and dissimilarities of Urdu and English sounds.

Discussion/Findings

Studies of this nature have always been carried out in order to diagnose the similarities and differences between phonemes of languages so that areas of possible difficulties are predicted especially in the ESL/EFL learning. This helps also in the areas of material development and language assessment.

This analysis shows and have explored the English and Urdu segmental phonemes. It has been understood that although the languages share some similar phonemes but there have been significant differences between their phonemic systems. While English has 44 phonemes, Urdu has 47/48 phonemes. Sounds in both languages are produced with the pulmonic airstream. To begin with, the English language has a total of 24 consonants and Urdu language has a total of 38/37 consonants. Although some consonant sounds are similar in both languages but some of them are dissimilar which highlight the difficulty for Urdu L2 learners. Aspiration shows significant difference in both languages. In English aspiration is allophonic but aspiration in Urdu language is phonemic. Therefore Urdu speakers may face difficulty in grasping allophonic aspiration. In many varieties of British English (including RP) there is a distinction between clear l [l] and dark (velarised) l [ɫ]. Clear /l/ comes before vowels (e.g. 'let' [let], 'silly' ['sɪli]), whereas dark l comes after vowels (e.g. 'milk' [mɪɫk]) or at the end of a word (e.g. 'fall' [fɔ:ɫ]). In Urdu such distinction is not found. Therefore, Urdu speakers may feel difficulty to identify such difference as second language learners.

Unlike English where some sounds are silent, the Urdu consonants are always pronounced. On the other hand, a careful study of the vowel systems of the two languages also revealed that great deal of differences occurs between them. In the first place, English has a total of 20 vowels but Urdu has only 10. The vowels of each language can be classed into two: pure vowels and diphthongs, where English has 12 pure vowels and 8 diphthongs. Nasalization is an imperative phonetic feature of Urdu. All the conforming Urdu vowels can be nasalized but it may not occur in all positions.

Nasalization can also be phonemic in Urdu because it is responsible for the change of meaning. On the other hand nasalization is not phonemic in English. Therefore L2 learners may face problems in learning vowels. English diphthongs and triphthongs expose a great deal of difficulty for Urdu speakers because this area of Urdu language has not been yet explored. More empirical evidence will be required to discover diphthongs in particular and overall sounds in general. Due to this reason Urdu language lacks diphthongs and triphthongs. Many other aspects such as germination, silent letters, spelling difference etc. are highly contrastive in both languages.

Urdu ESL learners would have difficulty in learning all those consonants and vowels which are missing or different in English language. Furthermore Urdu ESL learners would find hard to learn diphthongs and triphthongs as these are not yet explored completely in their own language. Thus learners are likely to use pure vowels instead of diphthongs or give the two sounds equal length.

Conclusion

Contrastive analysis is based on the similarities and the differences between two or more languages. At the same time, it takes into account a number of maxims about learning behavior. Contrastive study of English and Urdu language systems shows that Urdu differs from English in their sound patterns: number and kinds of consonants and vowels. They also differ from each other at the morphological, lexical and syntactic levels. In a nutshell, it can be deduced from the above analysis that phonologically, Urdu language differs to a large extent from English language. Due to the differences that exist in the vowels and consonants of the two languages, there are certain predictions of difficulties that Urdu learner of English is supposed to face. It is therefore practical that both Urdu learners of English and teachers of English take benefit of the exposition made in this study to objectify the desired goal of teaching/learning English as

a second language. Urdu ESL learners of English may get advantage by an explicit knowledge of these differences between their language and English. This analysis shows that English consonants and vowels that are not found in Urdu language are substituted by the nearest consonants/vowels. Course designers and materials producers who design course and produce materials for Urdu speakers learning English as a second or a foreign language would also be facilitated by the results of the present study.

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