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A STUDY OF PRONUNCIATION VARIATIONS AMONG RURAL AND URBAN LEARNERS OF ENGLISH

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ABSTRACT

This study explores the difference between the pronunciation of rural and urban Punjabi speakers in learning English. The focus of the study is to explore the differences found in the pronunciation of the consonant clusters at the coda position of English words. The research design of the study is qualitative in nature. The data for this is collected by passage reading and word elicitation tasks. Twenty-seven speakers participated in this research and six Punjabi native speakers are selected for the validity and reliability of the data. The CV phonology theory is employed to analyze the data. The result shows that urban Punjabi speakers made changes according to the phonotactic constraints of Punjabi. It includes epenthesis in syllable-initial consonants clusters. Results of the study showed that urban speakers due to their understanding and practice of pronunciation managed to pronounce English words without restructuring the consonant clusters on the contrary urban speakers modified theses consonant structure to suite to their own phonological rules. Thus L1 interference is observed in the pronunciation of rural Punjabi speakers. The outcomes reveal that mother tongue influence is the vital cause of the declusterization process. Furthermore, study shows that L1 interference can be overcome by listening and practicing. This study is helpful for those learners who are trying to learn English and those who are teaching the English language. It is also useful for teachers to identify students' mistakes, which they make while reading or speaking.

Key words Consonant clusters, L1 interference, Epenthesis

Introduction

English language occupies an important role in Pakistani educational system. English is taught and learned in schools, colleges and universities as a second language. It also enjoys the status of most prestigious language in Pakistan. It is the language of all the important offices in both public and private sectors (Rehman, 2002). It is thus, very important to learn English as it is also serving as a language of trade and technology and therefore people have to learn it for the purpose of earning livelihood. An important factor in learning a language is the learning of pronunciation. But it is not being taken as a serious matter. The reasons behind this lack of emphasis on correct pronunciation are numerous. Among these reason the most prominent ones are teaching methodology and the incapability of teacher in the field of pronunciation. In majority of areas of Pakistan and more specifically in Punjab, Grammar Teaching Method (GTM) is a preferred way of teaching English. In this method the focus of the teacher is more on writing and thus, learners get almost no exposure to the speaking.

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It therefore, results in lack in correct pronunciation of words including segmental and supra segmental factors (Khan, Mansoor, & Manzoor, 2016). Teaching and learning of speaking is lacking in both rural and urban areas. But it is observed that students of urban areas due to availability of resources and teachers more qualified in language teaching are better from the students of rural areas where the resources are scarce. Consequently, this study tries to explains the variations in pronunciation of English words among urban and rural learners of English. It identifies and analyzes the differences between the pronunciation of rural and urban learners of English. It also explains the nature of the errors made by these speakers and the strategies adopted by these speakers to overcome these difficulties.

Scope and Limitation of the Study

This research is a lead towards the pronunciation variations found among the Punjabi speaking rural and urban learners of English language. In this study, only segmental features are explored and examined in the speech of Urban and Rural English speakers. This study is confined to Lahore and its neighboring area. This study contains its scope by concentrating on the evaluation of oral speech. Due to the shortage of space and time the main focus remains on the consonant cluster thus other variations are not discussed.

Research Questions

For the purpose of this investigation following research question were formulated.

1. What are the variations found among the learners of English in the use of consonant clusters?
2. What are the strategies used by the learners to overcome the difficulties in the pronunciation of consonants clusters?

Literature Review

Phonotactic Constraints

According to the ancient Greek word “phone”, which means sound or voice and “tactics”, having to do with arranging. The phonotactic is a linguistic term for phoneme combinations. The phonotactic study set restrictions on sound sequence and syllable structures in a language. In the given language, Phonotactic constraints (PC) are concerned with possible sound sequences and impossible sound sequences ("Phonotactic constraints,"). In all languages, there are some limitations in which distinctive sound units are arranged to make syllables. We call them phonotactic constraints (PC) and they limit a possible number of syllables by combining phoneme in an unconstrained way. In English, some examples of phonotactic constraints (PC) are presented here. In it, there are some words like ('screen', 'strain', straight' etc) and these three-consonant clusters start with /s/. In word-initial consonant clusters, nasal consonants can happen as the second consonant when the first consonant is /s/ (e.g. in English, there are no words which start with /bm dn/ etc) because, in this language, plosive +nasal clusters do not present at the start of the words. This will violate the phonotactic constraint in English. Phonotactic constraints (PC) also differ from language to language. The restriction of a phonotactic sequence marks the starting and ending points of a syllable. The main reason of phonotactic constraints is a limitation on the speaker’s capacity to produce the sound sequence as syllable and the listener’s ability to hear how multiple syllables he perceives. In a word, Language’s sequence order is itself a sign to the number of syllables. For example, when a speaker pronounces an English word like ‘print’.

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He wants to convey to the receiver that this word contains a number of phonemes and also monosyllabic. There are how many syllables in a word and arrangement of phonemes depends on listener' perception (Jonathon Harrington & Cox).

There are not only multiple consonants in a cluster limited by a constraint, but also the order of consonants too. An important constraint is the sonority sequence principle According to the sonority sequence principle, the sonority in syllable must rise to its nucleus and then fall. According to Clements (1988) sonority scale comprises of four major class, which is ranked from more sonorous to least sonorant. Obstruents < nasals <liquids<glides. Selkirk (1984) adopts more difference between obstruents. She claims that plosives are least sonorous than fricatives. Plosives<fricatives<nasals<liquids<glides.

The minimal sonority sequence (Greenberg, 1964) more restricts consonant cluster sequence. It says that there must be a certain distance of close distance from each other on the sonority scale. The minimal sonority distance is language-specific.

Patterns in Phonotactic Constraints

Adaptation strategies are used in the production of English words by Punjabi speakers. Adaptation strategies (substitution, epenthesis, deletion etc.) are used while modifying an English word. These adaptations create a certain productive pattern. It is possible to estimate the pronunciation of English words which are borrowed into Punjabi on the basis of such patterns. Holden states that the adaptation alludes to the process of changing the phonological make-up of loanwords in the recipient language. According to the phonological constraints of Punjabi, English words are simplified during the adaptation process. For example, multi-syllables words are shortened through substitution and complex consonant clusters are rebuild by the intruding the epenthesis (insertion of a vowel) (Mahmood, Hussain, & Mahmood, 2011). It has been noticed that during the process of adaptation "a given input sound will be mapped onto the closest available phonetic category of donor language" (Peperkamp & Dupoux, 2003). In recipient language, if a sound is not present, it is changed to the nearest sound. For instance, / ɒ / cannot be found in Punjabi, /a/ and /o/ are the nearest sounds to English / ɒ/. This sound is always altered as /a/ and /o/. According to Hussain, Mahmood, and Mahmood (2011), substitution is a process in which one sound or phoneme is replaced by another sound closest to it. Every language possesses its own sound system. So, when words of one language are spoken by the speakers of the other language and the sound not present in recipient language can be replaced with another sound closet to it. Substitution generally helps in the preservation of the sounds. Hock (1991) said that substitution is the replacement of one phoneme by another phoneme of the recipient language that is phonetically similar to it. The study helps us to understand how Punjabi speakers pronounce different words during the process of borrowing. Mahmood et al. (2011) proposed that English loans words undergo substitution according to Punjabi phonological grammar, e.g. the word road /rəʊd/ is pronounced as /ro:d/. The diphthong is replaced by a long vowel. He concluded that the most common repairing strategy is the substitution to fix English loans. Duration the process of adaptation, there are certain sounds which are substituted by the sounds of the learner's mother tongue. Similarly, there are numerous examples of the substitution of English vowels and diphthongs which are replaced by the vowels and diphthongs of the learner's mother tongue. The perception is always impacted by the phonological system of the native language. For example, /eɪ/ is recognized as /e:/ in Punjabi because this /eɪ/ sound is unrepresented in Punjabi phonemic inventory (Hussain et al., 2011).

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There is only one adaptation procedure that is substitution which influences the other kinds of adaptation (addition, deletion and epenthesis etc.).

There are various repair strategies for L2 learners, epenthesis (insertion of a vowel) is a frequently used procedure to construct illicit consonant clusters permissible in the grammar of the learners' native language (Davidson, 2003). Many researchers argued that when L2 learners are faced with consonant clusters which are illicit in their mother tongue, they reply in two processes. According to the grammar of their native language, they make consonant clusters tolerable through either they intrude a vowel to break down the consonant clusters or they delete the consonant in the clusters (Abrahamsson, 1999; Davidson, 2003; Hall, 2006; Iverson, Ekanayake, Hamann, Sennema, & Evans, 2008). On the basis of its position epenthesis is further prosthesis and anaptyxis. Abrahamsson (1999) illustrates that prosthesis is described as to insert a vowel before the consonant and anaptyxis is illustrated as an intrusion of a short vowel to declusterize the consonant clusters. The insertion of the short vowel in illicit consonant clusters causes the resyllabification.

From the auditory point of view, the nature of epenthetic vowel has been discussed. (Iverson et al., 2008) have investigated the role of perceptual interference in learning L2 phonemes. The participants performed different tests to recognize /v/, /w/ phonemes in English. The outcomes of their study show that the influence of the native language is strong. When certain phonemes absent in the phoneme inventory of speakers'L1, it becomes difficult for learners to perceive it accurately. Penner (2009) also identified that disparity in L1 and L2 is the main cause of Japanese learners 'failure to learn English. He also asserts that the consequence of disparity is in difficulty to recognize L2 sounds, consonant clusters, and word boundaries. Penner (2009) proposes that this difficulty may be rectified by identifying a vowel between those consonant clusters which are illicit in the leraners'L1 and by modifying foreign sounds in the native phoneme category. The study organized by Dupoux, Pallier, Kakehi, and Mehler (2001) also confirms penner's claim about the intrusion of the epenthetic vowel. The outcomes of their study prove that illicit consonants are mended with the help of epenthesis or the matching of phonetic patterns between L1 and L2.

The important characteristic of English loanwords is the addition of phonemes. English is a non-phonographic language so the one to one relation between the letter and sound is missing. This phenomenon originates confusion in loanword phonology. In the middle or final of English words, palate-alveolar /r/ sound is absent or optional. Punjabi is a rhotic language. The addition of r sound is pronounced in Punjabi because Punjabi speakers are used to pronouncing the r sound. The addition of /r/ sound is also responsible for another change in syllabification. The addition of /r/ sound reshapes the English syllable structure from CVCV to CVCVC. In English, all of the words end up with an open syllable whereas in Punjabi they end with closed syllable. The addition of r sound which causes change an open syllable into a closed syllable either word-medially or word-finally (Mahmood et al., 2011).

Theoretical Frame work

For the understanding of the changes and the repair strategies CV phonology theory is selected. CV phonology theory is generative in nature. The reason for the selection of this theory is that CV phonology caters the phonological structural changes made at the syllable tier and CV tier and hence it not only provides a good understanding of the changes being made at both tiers.

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In CV notation C stands for consonant and V stands for Vowel (Habib, Naeem, Bhatti, & Khan, 2020; Zivenge, 2009). The tenants of CV phonology are discussed briefly in the next paragraph.

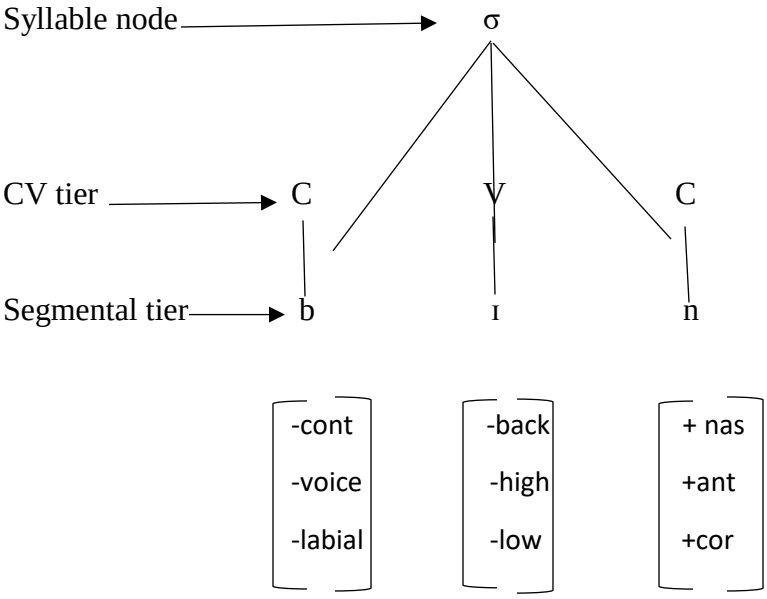
CV phonology espouses a structure based on different tiers as advocated by G. N. Clements and S. J. Keyser (1999). Accordingly, it determines the changes occurring at the different levels. These different hierarchal tiers constitute the syllable. Hence syllable is the main focus of the theory. The syllabus in CV phonology is constituted by the different combination of consonants (C) and vowels (V). These combinations of C and v constitutes the different nodes where ever C and V element creates a separated node. A generic syllable in CV phonology is a CV element where C at the tail is optional.

Peaks and non-peaks in CV phonology

An important notion in the CV phonology is the existence of peaks and non-peaks. According to (G. Clements & Keyser, 1999) only V elements are able to make syllable peaks. This syllabicity is due to the sonority of the vowels. Since, vowels are more sonorant than consonants therefore, they can make the peak of the syllable. It also shows that V element is only obligatory part in any syllable. On the other hand, C element can only come at the initial or the final position of the vowels called onset and tail. Consonant at the onset comes in ± C notation which shows that it depends on the language environment. It further explains the process through which these parts are altered due to the integration process. The connecting lines are insightful for providing the changes occurring to consonants and vowel.

CV Phonology theory envisions a syllable consisting of three-tiered structure as immediate constituents: a syllable node, a CV tier and a segmental tier consisting of Distinctive features which is representative of vowel consonants segments. These tiers are shown by the English word /bin/ below

Figure 1. The syllable



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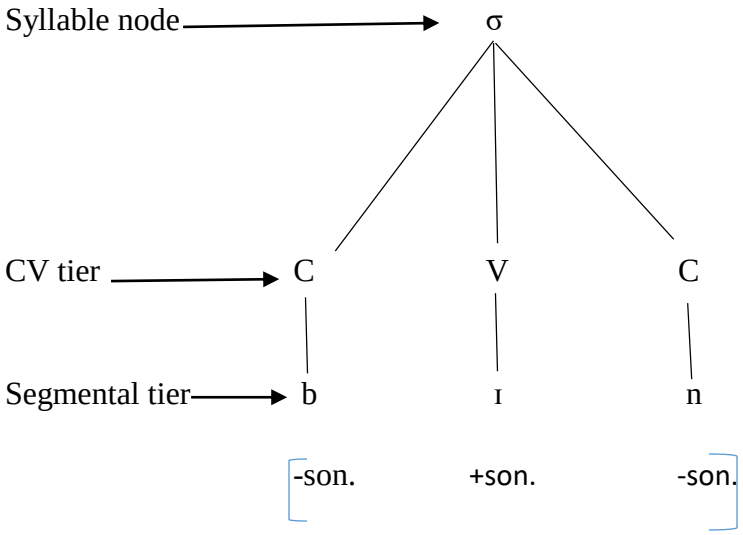
The above given model clearly indicates that syllable tier dominants the CV-tier and the CV-tier dominates the segmental tier. C and V in the CV-tier define functional positions: differentiates between the syllable peak and the non-peaks. In CV-tier the V element indicates the syllable peak (nucleus) which is also the peak of sonority. The nodes are linked to segments by association lines. Furthermore, a single σ node dominates every maximal sequence of segments which constitute a syllable.

Figure 2.



From the figure above, it is evident that /ɪ/ is more sonorant thus, it is the nucleus of the syllable. On the other hand, /b/ is [-sonorous] and /n/ is [+sonorous] but [-syll] therefore, these two cannot be nuclear, hence, they are non-peaks.

Methodology

The data used in present research are based on the corpora of English words collected for this work.

Data Collection

For the collection of data 15 students from urban and 12 students from rural area were selected who learn English as a second language. They were given selected paragraphs for English text books to read. Their readings were recorded and analyzed. After analysis of recordings, words with different pronunciation are selected and students were asked to pronounce them again. This work is descriptive in nature and will adopt a qualitative approach for collection and analyzing data. The target population for this study is the Punjabi speech community residing in Lahore.

The research is based on explanatory as well as qualitative method. The data was observed at two levels. At the first level the students were giving reading passages. The word list was created with the recorded reading passages. In the second stage examine the process of changes

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happening in syllable initial consonant clusters. Every selected learner pronounced these words at least three times to examine phonotactic constraints. All the data was transcribed in IPA convention.

Sampling technique

Purposive sampling technique is used for the selection of sample. Four native speakers of Punjabi were selected. These four authenticated Punjabi clips and recorded data as samples for its analysis. After the collection of data, words were selected from the data for the analysis of vowel Epenthesis. These Words are selected very carefully to serve the purpose. These words are transcribed according to IPA conventions.

Data Analysis

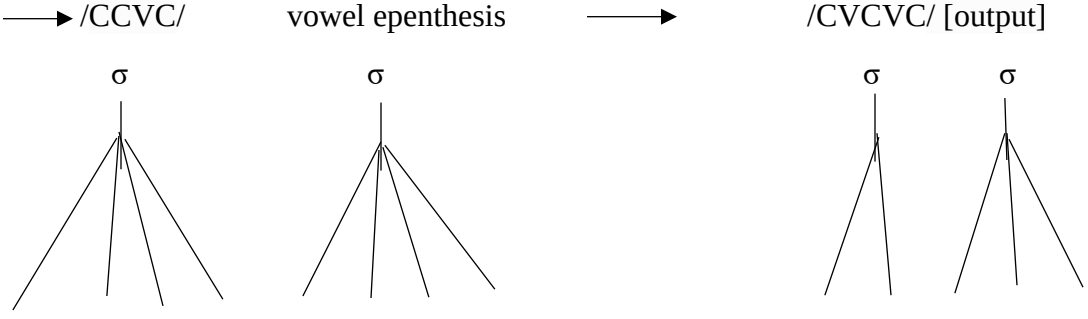
This section handles how the English sounds are altered by the Punjabi speakers to become acceptable to Punjabi Phonology. The English words selected are modified and this process of modification is shown by using CV notation.

Analysis of Data

In the given language, Pronunciation variations and phonotactic constraints are viewed with both possible and impossible sound sequences. In all languages, the syllables are made by supporting the distinctive sound units. They are defined as phonotactic constraints bound by a possible number of syllables by combining phoneme. There are different examples of phonotactic constraints that are present in English such as (‘strength’, ‘stroke’, ‘strong’ etc) and these three-consonant clusters start with /s/. In word-initial consonant clusters, nasal consonants can occur as the second consonant when the first consonant is /s/ (e.g. in English there are no words which start with /bm dn/ etc) because plosive +nasal clusters do not present at the start of the words. In any other language where this type of consonant cluster is not permissible, this form of consonant clusters will be broken down according to the phonological environment of that particular language (Jonathan Harrington, Cox, & Evans, 1997).

Punjabi also asserts similar kind of restriction to its speakers. Consonant clusters in the onset position is not allowed in Punjabi and thus it is changed by the speakers. To maintain the pronunciation Punjabi speakers, have to alter this condition. Thus, it needs practice and correct guidance. In urban areas this guidance is available as people with good native accent or close to native accent are teaching but in urban areas this type of guidance is scarce so the students have to rely on their native language’s phonological rules for the learning of English. The clusters for the study are taken with at least two consonants on the onset positions. Almost all rural speakers inserted schwa sound to break the clusters but majority of urban speakers manage to pronounce it with the insertion of schwa into the consonant clusters. Example of this is given below in figure

Figure 3.



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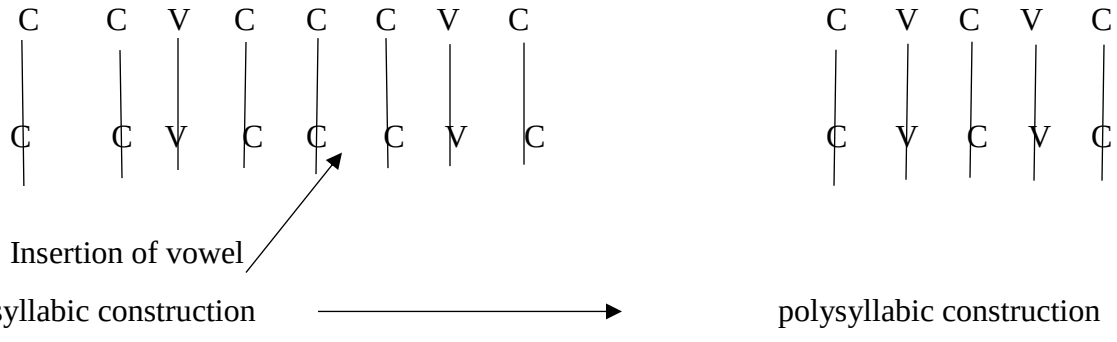
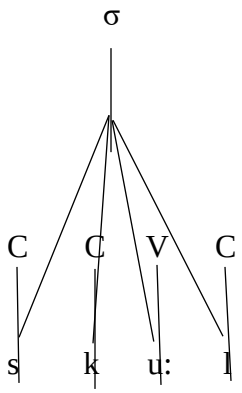


It is evident in the figure that the epenthetic vowel created a new node in the syllable. The monosyllabic word in CCVC configuration is converted into polysyllabic CV.CVC. Punjabi speakers insert /ə/ in a number of different consonant clusters in English loan words. This include the s + stop cluster type and stop + liquid type of clusters. Since the insertion process for all the cluster is same hence only one example is taken to explain the phenomenon. Example of this type of epenthesis is given below.

Insertion of /ə/ in /sk/ Cluster.

The first cluster type in discussion is /sk/ cluster. The /sk/ consonant cluster type does not exist in Punjabi language. Thus, the Punjabi speakers do not recognize this environment. the examples of this type of cluster are /skuːl/ ‘school’, /skeɪl/ ‘scale’, /skriːn/ ‘screen’, /skɔː/ ‘score’ etc. To deal with the /sk/ environment, Punjabi speaker insert mid central vowel /ə/. The insertion of /ə/ is discussed in figure 4.

Figure 4.



In the example given in figure 5.24 the words /skuːl/ ‘school’ presents Punjabi speaker a different situation in terms of phonotactic constraint applied by Punjabi Phonology. The words school consist of a syllable with CCVC configuration. Punjabi Language only accept four types of syllable: CV, VC, V and CVC. In order to deal with this situation Punjabi speaker has two options: either to break the CCVC configuration into CV.CVC by inserting a vowel into the cluster or make it a VC.CVC structure by inserting a vowel before the first consonants. In both the cases the monosyllabic word /skuːl/ ‘school’ will be broken down into disyllabic word. This is shown in the figure 5 and figure 6.

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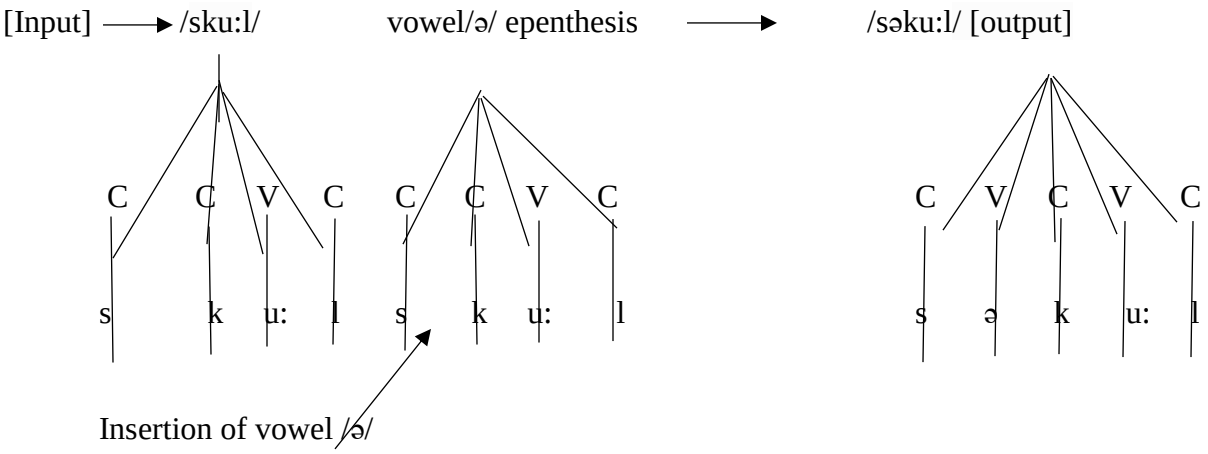
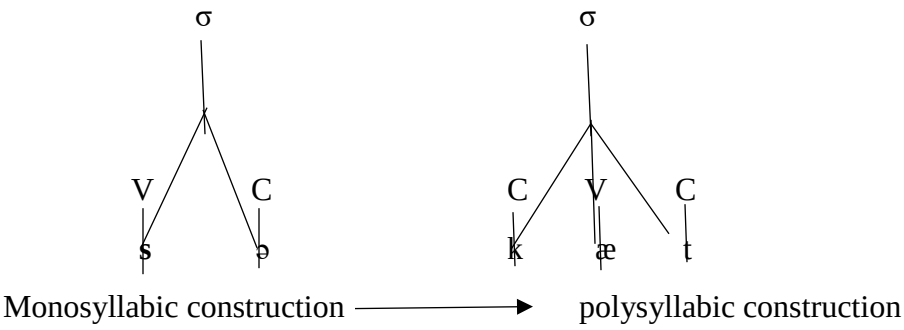
Figure 5. Vowel insertion in /sk/



The insertion of central vowel /ə/ enables the Punjab speakers to convert unrecognized CC structure into a recognized CVC structure and thus, permits a speaker to pronounce it according to Punjabi phonotactic constraints. As mention in section 4.2.3., this insertion is also in line with the sonority sequence principle. The extra syllabic /s/ sound in English will be converted into an initial consonant following the sonority hierarchy. It also enables the speakers to modify it according to the syllable length acceptable in Punjabi phonology. It is an example of cluster medial insertion or anaptyxis. The insertion of the vowel creates new node thus, the monosyllabic configuration will be converted into polysyllabic construction. This is shown in figure 5.26 where the word /skeɪt/ 'skate' is discussed.

Figure 6. Change of monosyllabic /skeɪt/ 'skate' into polysyllabic construction.



On the contrary the urbanites maintained the original cluster and pronounced the words in accordance to English phonological rule but not in accordance to Punjabi phonological environment. The examples of different structures with the similar treatment are given below.

Gloss	**Transcription of urbanites**	**Transcription of Rural**
Spring	sprɪŋ	səprəŋ
Street	striːt	sətriːt
Track	træk	təræk
Practice	præktɪs	pəræktəs

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Plus	plʌs	pələs
Clutch	klʌtʃ	kələtʃ
Crack	kræk	kəræk
driver	draɪvə	dəraɪvə
Blood	blʌd	bələd
Front	frʌnt	fərənt

According to the phonological and phonotactic constraints of Punjabi, English words which possess phonological features are simplified. The process of declusterization on onset and coda alters the English syllable structures. It also causes the restructuring of English syllable according to Punjabi syllable structure. The current analysis shows that during English learning process the Rural speakers transferring the Punjabi phonological system to the English language. This is the most excessively phenomenon used in learning the second language by following the phonological rule of native language to the English language. Learners are already familiar by the phonological system of their rural language. They perceive the sounds of the English language in terms of their own language phonological system. During pronouncing the words, they converted consonant clusters into new syllables and thus they resolve their differences in phonology. Thus rural speakers used the restructuring of consonant cluster as a strategy to overcome difficulties in pronunciation of the English words.

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