

## English Loanword Adaptation in Hindko: Vehicle Vocabulary

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### Abstract

*This paper aims to describe and analyze the phonological restructuring of English loanwords in Hindko vehicle context in terms of syllable patterns and provide explanation(s) for them. The phonological analysis of English loanwords is presented to highlight their syllable patterns after they undergo transformation in terms of Hindko syllable structure. The idea is to see what kind of changes occur and if there is a regular pattern being followed. The data are collected by interviewing Hindko motor- mechanics. The Praat software is used to seek confirmation of ə-epenthesis by the informants to break up clusters in English loanwords. Following the general tendency, the phonological changes take place in borrowed words in accordance with the system of host languages. The same is true to English loanwords in Hindko vehicle register.*

**Keywords:** *English loanwords, Hindko vehicle vocabulary, syllable structure, ə-epenthesis, restructuring, adaptation*

### 1. Introduction

English Loanwords are frequently found in Hindko vehicle vocabulary to fill the semantic gap. When these are used by motor mechanics, they pronounce them under the influence of their native language. Consequently, these are restructured in terms of syllable. For this study, the data are collected by interviewing Hindko motor mechanics working in the city of Muzaffarabad, Azad Kashmir. The study reveals that Hindko motor mechanics break up the onset as well as coda clusters using ə-epenthesis. Because the syllable templates in Hindko are different from that are found in English. However, some of the clusters are retained as they are in line with the host language. For instance, 'nd' where two sounds forming a cluster share the same place of articulation. Thus, the work supports the already existing hypothesis that says the loanwords are restructured in accordance with the phonology of the host language.

### 2. Literature Review

English loanwords in Hindko are a common occurrence (Haroon, 2011). The phenomenon of borrowing occurs in all languages resulting either filling the semantic gap or accepting some cultural influence from donor language in the recipient language. Hindko is no exception to this. However, the loanwords in Hindko are borrowed to bridge the gap that exists due to the technological advancement around in the world. Nearly, all technology words in Hindko come

from English as in Hindko technological vocabulary is not a developed. Hindko is used mainly for oral communication and not widely used as a means of written communication. Given this, Hindko does not have a rich vocabulary related to technology and therefore liberally accepts English loanwords in order to fill the gap.

The term 'borrowing' is defined as 'the taking over of words' by one language from other languages (Yule, 1986). It is considered as 'a kind of stealing' (Haugen, 1953) or 'a kind of copying' (Trask, 1996). This is due to the fact that the borrowed words are never returned to the donor language. A distinction between the process of taking over and the words taken over is made as the former is labeled as 'borrowing' and the latter as 'Loan Words' in the receiving language (Trask, 2007).

Borrowing is a natural and common source of vocabulary enrichment in a language. It is claimed that the process of borrowing is one of the most frequent ways of acquiring new words, and speakers of languages do it (Trask, 1996). This claim is borne out by the fact that enormous numbers of words in a language come from other languages. For instance, English language has borrowed a large number of words from other languages like French, German, Spanish, even Hindi. Yule (1986) points out that this has happened, through out its history, the English language has adopted a huge number of loan words from other languages, including *alcohol* (Arabic), *boss* (Dutch), *croissant* (French), *lilac* (Persian), *piano* (Italian), *pretzel* (German) *robot* (Czech), *tycoon* (Japanese), *yogurt* (Turkish) and *zebra* (Bantu) and more recently, the word *doosra* 'off-spinner's ball that goes the other way' in cricket commentary is borrowed from Urdu. The English language has historically been an enthusiastic borrower of foreign words 'well over half the words' in English have been borrowed from other languages (Trask, 1996). English, however, is not alone in doing so as other languages of the world such as Urdu, Arabic, Chinese, Japanese, Spanish, Punjabi, etc. have borrowed extensively too. Similarly, Hindko has borrowed words from English such as *bag, brake, cup, cooler, driver, draw, glass, jug, market, mutton, orange, oil, petrol, pink, rate, thermos, thermometer, time, washing machine, yellow*, etc. The established fact is that all languages borrow words from other languages (Hatch and Brown, 1995).

Various studies have shown that content words nouns followed by verbs and adjectives are generally borrowed more often than function words (Haugen, 1953; Sankoff et al., 1990). Much in the same way, Hindko borrows nouns from English in the field of vehicle maintenance to name different things such as *bumper, carburetor, channel, compound, diesel, door lock, drum, fan motor, front, gasket, inner excel, mat, plug, pressure, token, transformer, wire, wheel*, etc.

Typically, through this process by which a foreign word becomes a loan word is gradual (Bloomfield, 1933). The loanwords are typically integrated into host languages phonologically, morphologically and grammatically (Bloomfield, 1933; Haugen, 1953; Sankoff et al 1990). A distinction between three levels of linguistic integration is made (Bloomfield, 1933): words used but retain foreign phonology, words partially integrated into the borrowing language and words fully integrated and indistinguishable. But there are other possibilities too. Sometimes a borrowing may never become nativized (Katamba, 1994) or occasionally a loanword may affect the borrowing language itself (Bloomfield, 1933).

The phenomenon of restructuring in loanwords has been widely studied since long. It has been studied from various angles such as its motivating factors, semantic fields, sociolinguistic contexts and changes at morphological and phonological level due to the morphological and phonological systems of the recipient languages. For instance, Yang (2009) conducted a corpus based study of the borrowing of Chinese words in English. This work demonstrates that there is an increase in the amount of borrowing from Mandarin in English.

A great number of studies from phonological perspective reveal the importance of the loanwords and their assimilation in the recipient language. Bough and Cable (1993) while stating about loanwords in English maintain that some words on entrance in it retained their original form. For instance, the Latin words such as climax, appendix, epitome, exterior, etc. retained their Latin forms. But there is a great amount of words which, while adaptation, were restructured as most of them lost their endings to adjust according to the English phonology, e.g. conjecture, consult, exclusion and exotic lost their Latin endings 'is', 'are', 'em' and 'us' respectively. The Latin adjectives changed their ending 'us' to 'ous' as in 'conspicuous' or to 'al' as in 'external'. Such changes are also made in nouns. The Latin noun 'brevitas' changed to 'brevity'. Similarly, the nouns ending in '-antia', or '-entia' were adjusted by using English endings like '-ence', '-ancy' or '-ency'. All such changes indicate that while adaptation loanwords undergo changes to assimilate in the recipient language which, in turn, results in phonological changes. Hatch and Brown (1995) claim that borrowing is an evident phenomenon that takes place in every language and its strength is that even by law it cannot be avoided as it happened when France, by law, tried to prevent the use of English words in French. They assert that with the passage of time changes in pronunciation and spelling of loanwords occur while becoming closer and closer to the borrowing language. For example, in United States of America (USA) there are cafeterias that offer food of other countries, the students order Mexican breakfast pronouncing 'dsayuno de carne', 'tacodillas' or 'huevos rancheros' in a definitely English sounding pattern. They also indicate that there are such languages that exploit certain affixes to nativize loanwords. Japanese

uses 'suru'<sup>1</sup> such as memorize suru, touch suru. German often makes use of 'i (e) ren', so, English 'ruin' becomes 'ruiniren' and 'publish' becomes 'publiziren'. Russian uses '-ovat', so, 'publish' becomes 'publikovat' and 'figure' becomes 'figurirovat'. All such changes pave path for phonological changes due the host language operations. Boersma and Hamann (2008) studied the English loanwords adaptation in Korean language in the framework of 'Optimality theory' and attempted to offer explanation for various phonological changes that occur due to Korean phonology like vowel epenthesis. The English words 'false' and 'picnic' are pronounced as [P<sup>h</sup>ol.si.] and [P<sup>h</sup>i. k<sup>h</sup>i.nik] respectively by the Korean speakers.

The phonological changes in loanwords can occur at various levels including sounds, stress patterns, syllable structure etc. However, this study focuses on syllable restructuring of English loanwords. The syllable restructuring is, primarily, triggered by the syllable templates that are always language specific. The syllable templates in Hindko are different from English which cause changes in the syllabification patterns of English loanwords (Haroon & Sohail, 2012). Each language has a particular syllable typology, that is, every language exhibits a set of syllable templates according to which syllables are formed. For instance, the English syllable typology allows such syllable structures CCCVC as in 'screen' as well as CVCC as in 'belt' which shows that it allows complex structure both at onset and coda position. On the other hand, there are certain languages which do not permit such templates because their syllable typology does not allow onset or coda clusters such as Turkish. In Hindko, a syllable maximally is (C) V (C) (C) and minimally (V) (Haroon & Sohail, 2012). It means a syllable may have a simple onset or no onset. In rhyme constituent, the nucleus is obligatory and the coda is optional and can have zero consonant or maximum two consonants. As far as the clusters are concerned, these are banned at onset position while optional at coda position.

Quiet naturally, if a language with non-complex syllable structure borrows words from a language in which clustering is permitted; it is likely that the complex structures are reformed to conform to the structure of the borrowing language. This paper mainly aims to find out how Hindko motor mechanics restructure English loan words syllable according to their native language. Particularly, it is an attempt to find out how English consonant clusters are treated by Hindko speakers. One might expect that either clusters are turned into separate syllable or alternatively one of the consonant is dropped in order to turn a complex onset into a simple one and also a complex coda into a simple one if it does not conform to Hindko coda cluster pattern.

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<sup>1</sup>A marker similar to English auxiliary 'do'.

### 3. Methodology

In order to collect data, the informants were selected by using the technique convenient sampling. In total 15 informants were chosen. The target population was the native speaker of Hindko who work as motor mechanics in different areas of Muzaffarabad city. All the informants are male as no female motor mechanic is yet found in AJ&K either with some school level education or no education at all. None of them has completed ten years of education. Because most of them dropped out either their parents could not afford their education or they were low performer and could not be promoted to next grade. Their work experience ranges from 3 to 20 years. A tape recorder and cassette were used to record the data through interviews. For this purpose, two different techniques were used, one was 'look and name method' where they named the part which was pointed out to them and the other was 'elicitation through a verbal description'. A list of thirty English loan words, which is given below, was prepared to record the data. The list contains monosyllabic, bisyllabic and polysyllabic that is divided into three groups on the basis of their structural composition. Group A consists of eight words which are without any clusters. Group B carries ten words with onset clusters. While, group C includes twelve words with coda clusters. The interview, which consists of two parts, was conducted in Hindko. The first part of this was simple naming as the interviewees were asked to name different parts of the car (the researcher used his own car). This naming activity was used to record the following words: *wiper, radiator, headlight, accelerator, break, gear, switch, first, second, reverse, speed, oil, grease, screen, and drum*. The elicitation, through verbal description, was used for recording the following words: *filter, bush, accident, risk, disk, bulb, belt, cable, neutral, truck, tube, self, spring, burst and coolant*. The list is given below group wise along with transcription and syllable structure of English loan words which will be instrumental in the analysis in the next section.

#### Group A

(1) a.	Word	Transcription	Syllable template
	'bush'	/bʊʃ/	CVC
	'gear'	/gɪə/	CV(C)
	'oil'	/ɔɪl/	VC
b.	'wiper'	/waɪpə(r)/	CV.CV(C)
	'filter'	/fɪltə(r)/	CVC.CV(C)
	'headlight'	/hedlaɪt/	CVC.CVC
c.	'radiator'	/reɪdɪeɪtə(r)/	CV.CV.V.CV(C)
	'accelerator'	/əkseleɪtə(r)/	VC.CVC.V.CV.CV(C)

**Group B**

(2) a	Word	Transcription	Syllable template
	'break'	/brek/	CCVC
	'grease'	/gri:s/	CCVC
	'drum'	/drʌm/	CCVC
	'speed'	/spi:d/	CCVC
	'tube'	/tju:b/	CCVC
	'switch'	/swɪtʃ/	CCVC
	'truck'	/trʌk/	CCVC
	'screen'	/skri:n/	CCCVC
	'spring'	/sprɪŋ/	CCCVC
b.	'neutral'	/nju:trəl/	CCV.CCVC

**Group C**

(3) a.	Word	Transcription	Syllable template
	'belt'	/belt/	CVCC
	'risk'	/risk/	CVCC
	'disk'	/disk/	CVCC
	'first'	/fɜ:st/	CVCC
	'burst'	/bɜ:st/	CVCC
	'bulb'	/bʌlb/	CVCC
	'self'	/self/	CVCC
b.	'cable'	/keɪbl/	CVCC
	'reverse'	/rɪvɜrs/	CV.CVCC
	'second'	/ku:lənt/	CV.CVCC
	'second'	/sekənd/	CV.CVCC
c.	'accident'	/æksɪdənt/	VC.CV.CVCC

**4. Results and Discussion**

The notable feature of the data is that nearly all the participants used the same syllable templates in pronouncing the English loanwords.

**4.1 Words without Clusters**

In pronunciation of English loanwords, there are certain monosyllabic, bisyllabic and polysyllabic words that do not undergo any kind of change in terms of syllabification pattern. Thus, their English syllable templates are retained by Hindko motor mechanics. These words are *bush*, *gear*, *oil*, *filter*, *headlight*, *wiper* and *radiator*. The syllable templates of these exactly match with each other in English and as spoken by Hindko motormechanics.

## (4). Word-Original Template-Template used by Hindko speakers

a	'bush'	CVC	CVC
	'gear'	CVC	CVC
	'oil'	VC	VC
b.	'wiper'	CV.CV(C)	CV.CVC
	'filter'	CVC.CV(C)	CVC.CVC
	'headlight'	CVC.CVC	CVC.CVC
c.	'radiator'	CV.CV.V.CV(C)	CV.CV.V.CVC

The data given above in (4) a-c consists of words without any clusters. The monosyllabic words are given in (4) a, bisyllabic in (4) b and polysyllabic in (4) c respectively. This is worth pointing out that the template CVC of the monosyllabic words as in *bush* and *gear* is one of the commonly found syllable patterns in Hindko as it occurs in Hindko words *baD* 'extra' and *bat* 'kniit' (Haroon & Sohail, 2012). The other monosyllabic word in the above given data is *oil* with the structure VC which also exists in Hindko as exhibited in words like *ak* 'irritated' and *is* 'this' (Haroon & Sohail, 2012). The bisyllabic words *filter* and *headlight* are also on the pattern that is quite a productive one in Hindko bisyllabic words. This template, CVC.CVC, is found in words like *bitter* 'annoyed', *makkar* 'pretension', etc. Another bisyllabic word in the above given data is *wiper* which contains the pattern CV.CVC. This is also a common syllable pattern in Hindko as shown in *hoTer* 'rice field' and *suuTer* 'thread used to align' (Haroon & Sohail, 2012). Similarly, the polysyllabic word *radiator* with the structure CV.CV.V.CV is pronounced by Hindko motormechanics retaining its structure. Though root words with four syllables in Hindko are not commonly found yet different morphemic operations produce such words (Haroon & Sohail, 2012). The polysyllabic words in Hindko have the syllable structure that involves CV combinations mostly (Haroon, 2011). Thus, the syllable template CV.CV.V.CV was retained by Hindko motormechanics while pronouncing the word *radiator*.

The discussion in the above paragraph demonstrates that as expected the similarity of syllable templates in English and Hindko results in retaining the same syllable structure of English loanwords as in English. Hence, it can be generalized that **the English loanwords with the same syllable template as found in Hindko retain their syllable structure**. This generalization is also supported by the restructuring of the polysyllabic word *accelerator*. This word consists of five syllables as its syllabification is VC.CVC.V.CV.CVC which is not found in Hindko (Haroon & Sohail, 2012). The Hindko motormechanics pronounce the above mentioned word as /eksɪlætər/, deleting the sound /r/ and resyllabifying it as VC.CV.CV.CVC. Thus, restricting the number of syllables to four, it is adjusted to Hindko syllable patterns. In addition, there are some other English loanwords with certain coda clusters that remain unchanged



being in conformity with Hindko syllable templates. This phenomenon will be discussed in detail under the respective subsection

#### 4.2 Onset Clusters

Generally, the onset clusters in loanwords are declustered by Hindko motor mechanics using two methods with the exception of 'tr' as in *truck*. Mainly, the declustering is done through epenthesis, i.e. by inserting /ə/ sound and adding another syllable. Less frequently, the clusters are treated by deleting the second consonant in them resulting in a single consonant onset. The onset cluster that are split by using /ə/ insertion in English loanwords spoken by Hindko motormechanics are as given under:

(5)a.	<b>Word</b>	<b>Sound</b>	<b>Syllable Structure</b>
	'break'	/bərek/	CV.CVC
	'grease'	/gəri:s/	CV.CVC
	'drum'	/dərəm/	CV.CVC
	'speed'	/səpi:d/	CV.CVC
	b. 'screen'	/səkri:n/	CVC.CVC
	'spring'	/səprɪŋ/-/əspərɪŋ/	CVC.CVC/VC.CV.CVC

This data in (5) a-b shows that Hindko motor mechanics break up the onset clusters in loanwords inserting /ə/. This was done invariably by all the participants in pronouncing the words *break*, *drum*, *grease*, *speed*, *spring* and *screen* splitting the clusters br, dr, gr, sp, spr and scr. The confirmation of /ə/ insertion is also done by the Praat software recording these words in the sound of the participants. The following spectrograms, representative of the motor mechanics' pronunciations of these words exhibit the phenomenon of ə-epenthesis:

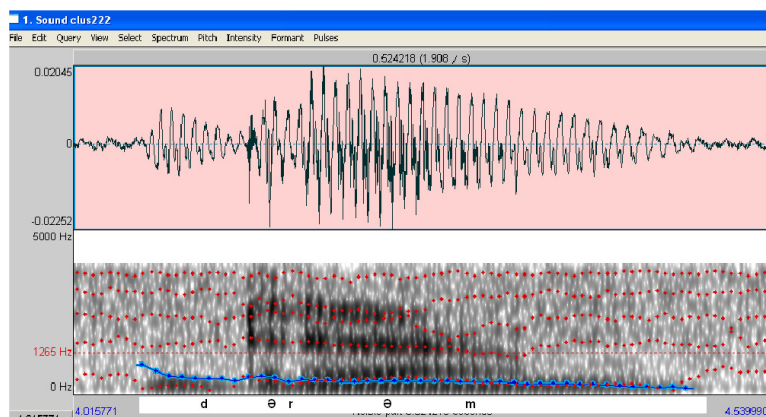


Figure 1: Spectrogram showing the presence of /ə/ between /d/ and /r/.



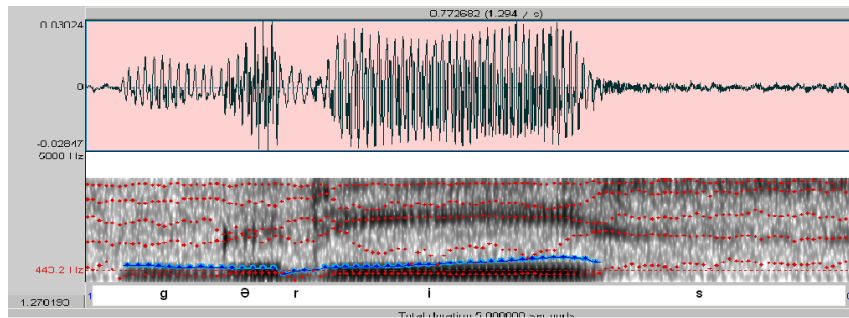


Figure 2: Spectrogram showing the occurrence of /ə/ between the consonants /g/ and /r/.

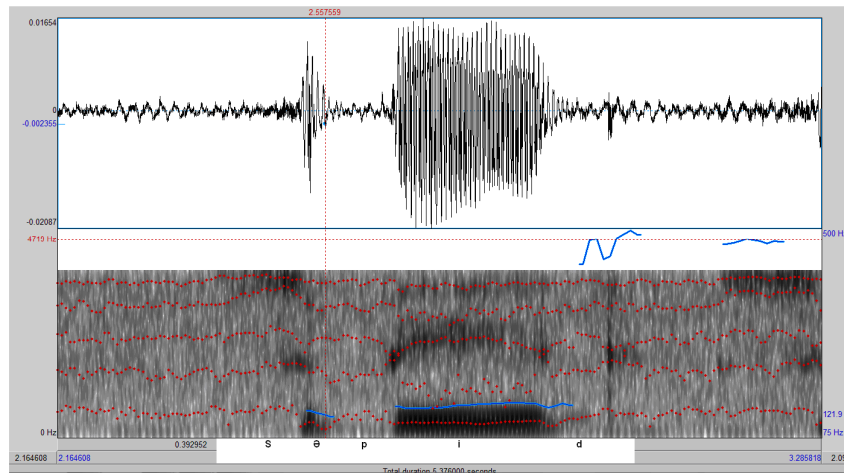


Figure 3: The insertion of /ə/ is indicated by the spectrogram between /s/ and /p/.

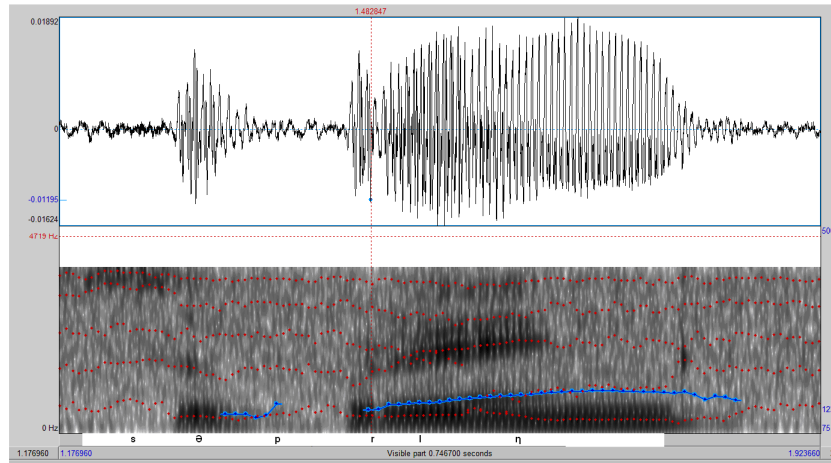


Figure 4: Spectrogram exhibiting the insertion of /ə/ to decluster 'spr'.

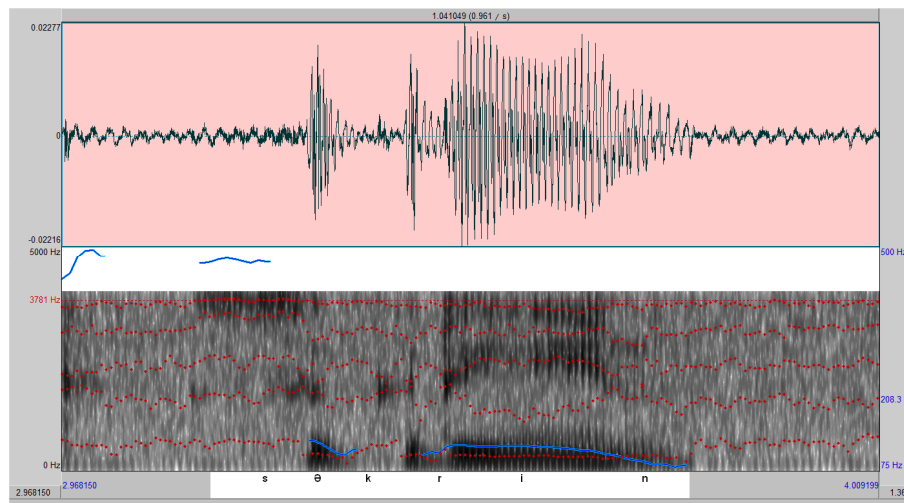


Figure 5: Spectrogram for the word screen shows the insertion of /ə/ between the sounds /s/ and /k/.

All the spectrograms given above confirm beyond any doubt that the Hindko motor mechanics insert the vowel /ə/ as an epenthetic vowel to break up the onset clusters in English loanwords. Consequently, all these English loanwords are re-syllabified. The pattern of change in monosyllabic words with two consonant at the onset position is as given in (6):

(6)	<b>Word</b>	<b>English→Loanwords</b>
	'brake'	CCVC →CV.CVC
	'drum'	CCVC →CV.CVC
	'grease'	CCVC →CV.CVC
	'speed'	CCVC →CV.CVC

In case of a word consisting of three consonants at onset position the resyllabification is done as in (7) below:

(7)	<b>Word</b>	<b>English→ Loanword</b>
	'spring'	CCCVC→CVC.CVC
	'screen'	CCCVC→CVC.CVC

This indicates that the monosyllabic words with the syllable template CCCVC are restructured by using the epenthetic vowel, converting them into bisyllabic with the syllable pattern as CVC.CVC. However, a very slight variation is found in this regard as two of the informants, besides the above given practice to decluster onset clusters, inserted /ə/ twice in the word 'spring'. This is shown in the spectrogram given below:

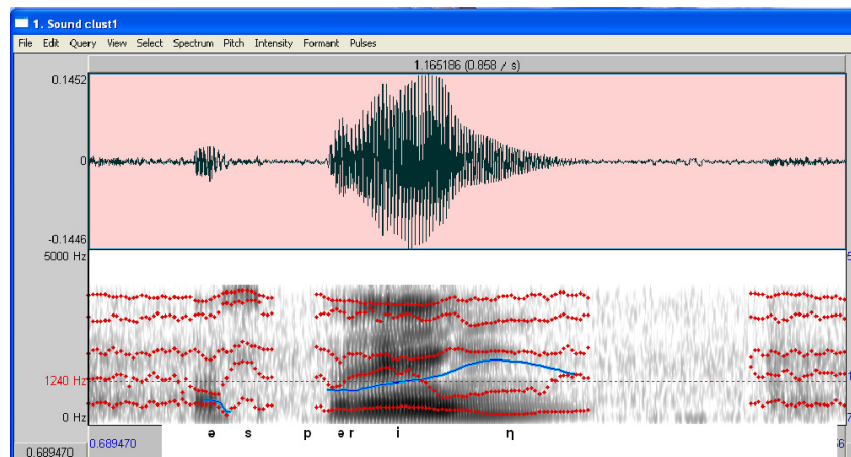


Figure 6: Spectrogram showing that the vowel /ə/ is inserted twice; firstly, in the beginning resulting in / əs/ and secondly between the second consonant of the cluster which is /p/ yielding /pə/.

In this case, the change in syllable structure is different as the monosyllabic word *spring* changes to a trisyllabic one, thus, the template CCCVC →VC.CV.CVC. However, this restructuring is not a regular one as it is found only in the word *spring* and applied by only two out of the fifteen informants.

On the other hand, Hindko motormechanics in the loanwords *neutral*, *tube* and *switch* decluster differently as shown in (8) below:

(8)	<b>Words</b>	<b>English→ loanwords</b>
	'neutral'	CCV.CCVC→CV.CVC/CV.V.CVC
	'tube'	CCVC →CVC/CV.VC
	'switch'	CCVC →CVC

Notice that the word 'neutral' has two syllables and in each syllable there is a cluster in the beginning. The first syllable contains onset cluster /nj/ and the second syllable begins with /tr/ which is a mid cluster as it is in the mid of the word. The onset cluster /nj/, /tj/ and /sw/ are declustered by the deletion of the second consonant, which is a glide in English, appearing in the sequence. All the informants deleted the sound /j/ while pronouncing the words as /nu:təl/ and /tu:b/. However, two of them deleted the sound /j/ and replaced it with /ɪ/ pronouncing as /nɪu:təl/ and /tɪu:b/ respectively. In the case of the former, CCVC is reduced to CV or CVC respectively. In contrast, the latter case causes a greater level of change as the word 'neutral' turns into a trisyllabic word which is a bisyllabic one in English and 'tube' becomes bisyllabic which is monosyllabic in English. It is worth noting that the mid cluster 'tr' is declustered by deleting the second consonant which is /r/. As far as the cluster 'sw' in the word 'switch' is concerned, it is declustered by deleting the second consonant. More interestingly, the vowel /ɪ/ after /w/ is replaced by the vowel /ʊ/.

In sum, deletion process, which is mostly used by Hindko motormechanics, results in the loss of a 'C' slot, hence, restricts the templates to either CV as in 'neutral' or CVC as in the words 'tube' and 'switch' while the replacement of /j/ with the vowel /ɪ/, which is a rarity, adds an extra syllable to the words 'neutral' and 'tube'. The mid cluster /tr/ in the beginning of the second syllable of the word 'neutral' is broken up by all the participants by deleting /r/, thus, restricted the template to CVC. If we look at the simple deletion of sounds in the clusters discussed above, we find one common feature i.e. the second consonant is deleted in all the clusters. This pattern is shown below:

(9)	a.	nj → n
	b.	tj → t
	c.	tr → t
	d.	sw → s

It shows that the first consonant is retained and the second consonant is deleted. Even in case of the replacement of /j/ with /ɪ/, in the words 'neutral' and 'tube', the affected consonant is the second one. In both cases the syllable template is restructured as shown above in (8).

An interesting exception to the pattern change is the cluster 'tr' as in *truck*. The /r/ is retained by all the participants as the spectrogram given below indicates:

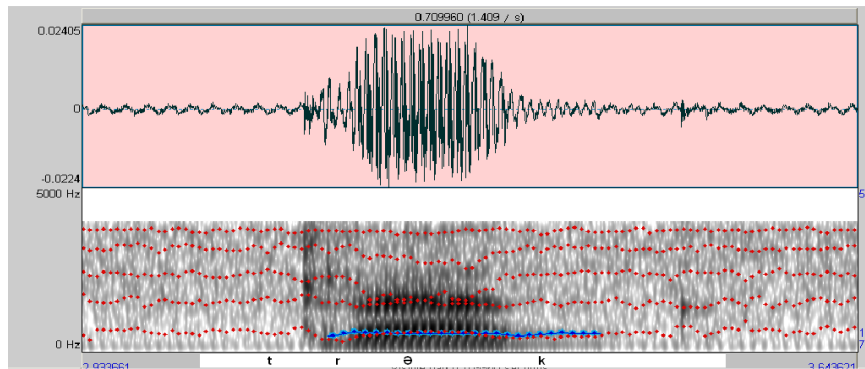


Fig. 7: Spectrogram confirms that there is no epenthetic vowel between /t/ and /r/

This proves that the onset cluster 'tr' is retained in the word *truck* by the Hindko motor mechanics. As this result was different from the other onset clusters, thus, it was tested again to reconfirm by giving other borrowed words, used by Hindko motormechanics, *try*, *trick*, *train* along with the word *truck* to the informants to pronounce. The data recorded and analyzed, using the Pratt software, supports the previous result. Thus, it establishes that in Hindko the onset cluster 'tr' is a borrowed one. The phenomenon of borrowing clusters is not unfamiliar to languages as it has happened in various languages such as Bengali borrowed numerous clusters from other languages like onset cluster 'tr' from Sanskrit, 'fr' from English; the coda clusters 'kt' and 'st' from Persian and Urdu (Masica, 1991). As far as the onset cluster 'tr' is concerned, it might have been borrowed in Hindko from some other language like Sanskrit or English. The strong possibility is that its source language is English and, in a way, it resembles the coda cluster 'nd' in Hindko (Haroon, 2011) as both consonants are alveolar in these clusters.

It can be concluded that onset clusters except 'tr' in English loanwords are declustered by Hindko motor mechanics. In doing so, mainly /ə/ is used as an epenthetic vowel. Scarcely, the second consonant in two consonant clusters is dropped out. As a result of this break up, the restructuring of English loanwords in terms of syllable patterns occurs. This restructuring is triggered by the syllabification structure of Hindko as it does not admit any onset clusters (Haroon, 2011). Thus, it is worth noting that the most regularly followed patterns are as given in (10) below:

- (10) a. CCVC → CV.CVC  
b. CCCVC → CVC.CVC

### 4.3 Coda Clusters

The study of coda clusters in English loanwords is varied. In some cases, the clusters are retained whereas in others split by Hindko motor mechanics. The following data exhibits the phenomenon of retaining coda clusters:

(11)	Word	Transcription	Syllable Structure
	'accident'	/æksɪdənt/	VC.CV.CVCC
	'coolant'	/ku:lənt/	CV.CVCC
	'second'	/sekənd/	CV.CVCC
	'belt'	/belt/	CVCC
	'risk'	/risk/	CVCC
	'disk'	/disk/	CVCC
	'reverse'	/rivərs/	CV.CVCC
	'first'	/fɜst/	CVCC
	'burst'	/bɜst//bɜrɜst/	CVCC/ CV.CVC

The data stated above in (11) shows that the following coda clusters in English loanword are retained by Hindko motor mechanics:

(12)		CodaCluster	Example (s)
a.	nt :		accident, coolant
b.	nd :		second
c.	lt :		belt
d.	rs :		reverse
e.	st :		first, burst
f.	sk :		disk, risk

The striking feature of clusters in (12) a-e is that both of the consonants in the cluster have the same places of articulation. For instance, /n/ and /t/ in (12) a are both alveolar. Similarly, in (12) b-e both consonants are alveolar. It is note worthy that in the cluster shown in (12) f where the first consonant is alveolar and the second, which is /k/, is a velar. The coda cluster 'sk' is an exceptional case, though it consists of the combination coronal + dorsal which does not exist in Hindko (Haroon, 2011) yet has been retained by the motor mechanics in English loanwords. It is worth noting that during the data recording it was noted that some of the motor mechanics decluster it as well. However, surprisingly, none of the informants chosen for data collection did so. The cluster 'st' in the word 'burst' was given a different treatment by two of the participants as they pronounced it as /bɜrɜst/. This means the sound /r/ is pronounced. In order to do so, the vowel /ə/ is inserted before the cluster 'st'. This pattern is not a regular one.

The coda clusters 'lf', 'lb' and 'bl' in the words *self*, *bulb*, and *cable* respectively are split by all the informants using the epenthetic vowel /ə/ between the consonants as the data given below exhibits:

(13)	Word	Transcription	Syllable Structure
a.	'self'	/səlθf/	CV.CVC
b.	'bulb'	/bəlθb/	CV.CVC
c.	'cable'	/kebəl/	CV.CVC

It is worth pointing out that the coda clusters which undergo teasing apart have the places of articulation as follows:

(14)	a.	lf :	Alveolar (Coronal) + Labiodentals (labial)
	b.	lf :	Alveolar (Coronal) + Bilabial (labial)
	c.	bl :	Bilabial (labial) + Alveolar (Coronal)

The data in (13) a-c shows that Hindko motormechanics do not retain the clusters if the places of articulation of both of the consonants are not identical. For example, in (13) a, the first consonant is alveolar (coronal) and the second is labiodental (labial). Similarly, the places of articulation of both the consonants as shown in (13) b-c are different from the perspective of passive as well as active articulation of sounds.

In the light of the discussion above, it can be concluded that Hindko motor mechanics while pronouncing English loanwords retain such clusters in which both the consonant have the same places of articulation with the exception of 'sk'. Any other combination like: coronal + labial or labial + coronal is declustered by using /ə/ as the epenthetic vowel. The retained coda clusters by Hindko motor mechanics in English loanwords do not undergo any structural syllable change as their templates remain the same as shown in (15) below:

(15)	Word	Original Template	Template used by Hindko speakers
a.	'accident'	VC.CV.CVCC	→ VC.CV.CVCC
b.	'coolant'	CV.CVCC	→ CV.CVCC
c.	'second'	CV.CVCC	→ CV.CVCC
d.	'reverse'	CV.CVCC	→ CV.CVCC
e.	'belt'	CVCC	→ CVCC
f.	'first'	CVCC	→ CVCC
g.	'burst'	CVCC	→ CVCC
h.	'risk'	CVCC	→ CVCC
i.	'disk'	CVCC	→ CVCC



The coda clusters in (15) a-g except 'sk' in (15) h-i consist of the combinations of coronal sounds which is exactly the combination of consonants for coda clusters found in Hindko (Haroon, 2011). The coda clusters found in Hindko are 'nd' as in *pand* 'bundle' and *phand* 'an animal' and 'nD' as in *kanD* 'wall' and *ganD* 'garbage' which clearly shows that the clusters found in Hindko are subject to two conditions (Haroon, 2011), i.e. only two can join together and secondly both the consonants should be + Coronal. Thus, clusters in loanwords that fulfill the above constraints are not declustered by the Hindko motor mechanics which, in turn, results in no restructuring in terms of syllable templates as shown in (15) a-g. However, the syllable templates are restructured in case as the consonants in the clusters involve any combination like coronal + labial or otherwise as shown above in (14) a-c.. All the coda clusters that involve any movement of the tongue from labial to coronal or otherwise are declustered using the epenthetic vowel such as 'lf' 'lb' and 'bl' as these do not comply with the constraints in Hindko. The monosyllabic loanwords are restructured in terms of syllabification as their syllable template CVCC is converted to CV.CVC as shown in (16).

(16) **Word-Original Template-Template used by Hindko Speakers**

a.	'self'	CVCC	→	CV.CVC
b.	'bulb'	CVCC	→	CV.CVC
c.	'cable'	CVCC	→	CV.CVC

Broselow (1988) observed that speakers of Egyptian and Iraqi Arabic encounter the difficulty with consonant cluster in English and generally break them up using epenthetic vowels. However, they do as slightly differently as given in (17) below:

(17) Word	Egyptians	Iraqis
'children'	childiren	Chilidren
'plastic'	bilastic	Iblastic
'fred'	fired	Ifred
'translate'	tiransilate	Itranslate

The data given above in (17) exhibit that in order to break the clusters the Egyptians use the epenthetic vowel /ɪ/ in between the consonants whereas Iraqis do the same by prefixing the vowel in the beginning of the cluster, so that, it combines with the first consonant to form VC syllable. The second consonant becomes the onset of the next syllable with the vowel next to it forming CV syllable. Both these varieties of Arabic have the same syllable structure as CVC is the maximal allowable syllable. The use of epenthetic vowel is also common among Sindhi and Pahari speakers while pronouncing English words like 'school', 'speed' etc. These are spoken as /ɪsku:l/ and /ɪspi:d/ by them. However, the Pahari speakers also pronounce the word 'school' as / səku:l/ as

well (Khan & Bukhari 2010). Rehman (1990) observed that Urdu speakers introduce /ɪ/ to decluster 'sk', 'st' etc. initially and the Punjabi speakers insert /ə/ in between the consonants. Like Punjabi speakers, Hindko motormechanics also insert /ə/ in between the consonants while breaking up the clusters in English loanwords. However, Hindko is different from the above mentioned languages like Punjabi in the sense that it tends to drop a consonant if it is a glide.

## 5. Findings

From the discussion above, the following generalization can safely be drawn:

- a. The English loanwords are not restructured in terms of syllable if they conform to Hindko syllable templates such as:

- i. VC → VC
- ii. CVC → CVC
- iii. CVC.CVC → CVC.CVC
- iv. CV.CVCC → CV.CVCC (if the last two consonants are coronal)

- b. The syllabification patterns in English loanwords are restructured, in accordance with Hindko phonology, if the syllable templates in loanwords are not in conformity with Hindko syllable templates as given below:

- c.
- i. CCVC → CV.CVC
  - ii. CCCVC → CVC.CVC
  - iii. CVCC → CV.CVC (if any of the last two consonants is labial)

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