
Phonemic substitutions in the English-Tiv loan phonology

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Abstract: All living languages borrow new words to enrich their own languages. Tiv language has borrowed a lot of loan words from the English language as a result of language contact. This paper analyses phonemic substitutions in the English-Tiv loan phonology. The main objectives of this study are to discuss vowel and consonant substitutions in the English-Tiv loan phonology and to state the implications of English-Tiv loan phonology in the study of the Tiv grammar. This study adopts LaCharite & Paradis' (2005) phonological Repair Model and Calabrese Andrea's (2009) Acoustic Approximation Model. The author used both primary and secondary sources in this study. Under primary sources, the researcher compiled the list of English-Tiv loan words through the participant-observer method, and the secondary sources were obtained from journal articles, textbooks, and dictionaries. From this study, the following observations were made: that English-Tiv loan phonology leads to coda declusterisation. Tiv phonology does not have /θ/, /ð/, /ʒ/, /ʌ/ and /ə/ phonemes; so the said phonemes are being replaced by /t/, /d/, /f/, /ɔ:/ and /æ/. It has been discovered that some loan words maintain their original spellings but have different pronunciations. This paper is an advancement of scholarship on phonemic substitutions in the English-Tiv loan phonology, making it an important addition to secondary sources of data on the critical reception of English-Tiv loan words and promoting the Tiv language within and beyond the academic cycle.

Keywords: Borrowing, Declusterisation, Decodalisation, English-Tiv loan phonology, Loan-word, Phonemic substitution

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1 Introduction

Phonemic substitution is adapting the sound systems of a donor language to a receiving language. Living languages interact because of language contact, which results in the borrowing of lexical items from the 'major languages'. Indeed, the contact that the white people had with the Tiv people resulted in an extensive borrowing of lexical items that culminated in a sub-field of historical or contact linguistics referred to as loan phonology. The coming of the white people in the Tiv land marked the beginning of loan phonology. Over one hundred years ago, white people came to the Tiv land as traders and missionaries that opened many churches and translated the English Bible into Tiv. Both trade and evangelism brought many English words which most of which were used in the Icighan Biblio (Holy Bible) (2007).

English, a stress-timed language, has loaned out a lot of lexical items to Tiv, a syllable-timed language that is

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spoken in the north-central geographical zone of Nigeria and the Republic of Cameroon. These two different languages have co-existed because of language contact. Crystal (2008:107) observes that the consequence of language contact is ‘the growth of loan-words and loan-words ‘come with new phonemes that the recipient languages may not have’ (Aor & Damkor, 2021:5). Aor (2020a:21) confirms that ‘the first encounter that Tiv had with the outside world was through trading’. The above-cited author explains that the white people came to the hinterland of Tiv as trade dealers who bought cotton wool, palm oil and consequently bought human beings as slaves. He maintains that after the abolition of the slave trade, they came to preach the ‘Good News’ to the broken-hearted. At various points of Western encounters, Tiv people began to obtain English loan words to enrich their language. Adding the English loans to the already existing Tiv words, the origin of English-Tiv loan phonology began.

Unfortunately, English-Tiv loan phonology has not received serious attention as the available literature indicated. Iorkua (2010) and Aor (2021a) carried out various studies on borrowings and loan words. Iorkua discussed various loan-words from English, Hausa, Igbo, and Yoruba into the Tiv language. Iorkua did not dwell her study on only English loan-words. Aor treats epenthesis, elision, metathesis, and eye dialects as the implications of English loanwords on studying the Tiv language. The author does not mention phonemic substitution as an aspect of loan phonology. The foregoing cited literature does not in any way reflect the potentials of English-Tiv loan phonology, hence the near-absence of substitution of phonemes in the above-cited works. Therefore, the author embarks on this study to discuss vowel and consonant substitutions in the English-Tiv loan phonology and state the implications of English-Tiv loan phonology in the study of the Tiv grammar.

2 Literature review

This sub-section looks at the conceptual review, empirical review, and theoretical framework. The concept of loan phonology has been defined, and various scholarly reviews on substitutions which is an integral aspect of loan phonology, have been explored. This study adopts LaCharite and Paradis’ (2005) phonological repair or phonological stance model and Calabrese Andrea’s (2009:69) acoustic approximation or perceptual stance to repair English phonemes with Tiv phonemes and to also approximate English phonemes with Tiv ones.

2.1 Conceptual and empirical review

Crystal (2008:287) defines loan phonology as the ‘study of how languages adopt foreign words within their phonological systems.’ Hsieh (2017:624) also refers to loan-word phonology as the adaptation of segmental, phonotactic cum suprasegmental features of a source language to a target language. This adaption must relate to the segmental, suprasegmental, and grapho-phonological requirements of the receiving language. The art of domesticating new words to a target language is what is called loan adaptation. In his word, Carr (2008:93) describes loan-word adaptation as the process whereby ‘speakers of the borrowed language adapt loan-words’. Carr maintains that loan-words are forced into the phonotactic patterns of the speaker’s native language to conform to the phonotactic constraints of such a language.

According to Calabrese and Wetzels (2009:1), people borrow words to fill gaps in their linguistic repertoire. They state that people borrow newly introduced concepts because they do not have names in the target language, and they also borrow lexical items because of the prestige. In loan phonology, a word undergoes series of changes and is domesticated according to the grammatical system of the target language. Calabrese (2009:59) opines that bilinguals that borrowed loan-words that are not in their languages, shaped such loan words to conform to the graphological, phonological, lexical, and semantic features of their target languages. Haugen (1956) avers that when speakers of the target language borrowed loan words from the source language, they replaced the phonemes of their own language. Fromkin, Robert and Nina (2003:356) add that the sound system of the source language is often changed to maintain the phonological system of the target language, and speakers of the receiving language modify the phonemes of the borrowed language. Calabrese (2009:61) also avers the phoneme or syllable that cannot be pronounced because it is non-native needs to be repaired. This repair is the substitution of the target language’s phonemes with the source language’s phonemes so as to enhance effective pronunciation.

Below is a brief review of scholarly studies on loan-words or loan phonology. Ola (1996:1) examines loan-words as an instance of language contact and linguistic interference. Mwihaki (1998:1) investigates the phonological principles of the adaptation of Gikuyu loan-words derived from English. Laganaro and Zimmermann’s (2010:1) study discusses phonemic substitution and phonemic movement errors. Sa’aida (2015) looks at the strategies of repairing phonological structures of the English-Jordanian-Urban-Arabic-speaking loan-words. E-Ching (2015) dwells on the phonology of contact language with the emphasis on creole sound change in context. Those studies dwelled on English, East African languages and Middle-Eastern languages. None of the above studies treat English-Tiv loan phonology. Sato, Kato and Kosaka (2013:1) perceive phonemic substitution as a ‘pronunciation error.’ They state the following vowel and consonant rules thus: vowel insertion at the end of words; vowel substitution (a Japanese vowel replaces English vowel); vowel insertion between consonants; and consonant substitution in English consonant being replaced by a Japanese consonant. Damilare’s (2015:40) study centers on the role of phonemic substitution. Damilare observes that vowel and consonant substitutions occurred because of the absence of the voiced sounds in the Ijebu dialect and their contact with the English language.

Kangwa (2017:40) emphasizes the use of vowel substitution as the strategy for loan-words repairs. Similarly, Kangwa (2017:21) investigates how Bemba adapts consonants from English to suit its pre-existing phonology. McMicken et al. (2017:1-6) examine the substitution of bilabial sounds by congenital aglossia patients during consonant production. Aor’s (2020b) study centers on graphological deviation in the Icighan Bibilo (Tiv Holy Bible). The study critically analyses intra-lingual substitutions as a result of ‘multiple spelling.’ The author identifies l and r (rumun and lumun [accept]); i – y (kpianger and kpyanger [stir or rise]), m – n (gbeem gbe gbeem and gbeen gbe gbeen [crooked]) and ô – o (iyôgh [iron] and iyol [flesh]) substitutions. Biblical verses have been given in Table 1 to substantiate this assertion.

Table 1: Aor’s (2020b:50) l and r substitution in *gilgal*, *girgar* and *gilgar* (gate or wall)

Tiv Version <i>Gilgal, Girgar and Gilgar</i>	English Version <i>Gate or Fence</i>
‘...sé maa nen <i>gilgal</i> u Yerusalem sha er sé kera lu kwagh u lahan ga yô’ (Nehemiah 2:17). ‘Ne fa er vea tile sha <i>girgar</i> vea ker gaa?’ (II Samuel 11:20). ‘...kua <i>gilgar</i> u kasen Yerusalem la kpaa’ (I Kings 3:1).	‘...let us rebuild the <i>walls</i> of Jerusalem and suffer this indignity’ (Nehemiah 2:17). ‘Knew ye not that they would shoot from the <i>wall</i> ?’ (KJV: II Samuel 11:20). ‘...and the <i>wall</i> of Jerusalem round about’ (I Kings 3:1).

The above table shows that the word meaning ‘gate’ or ‘wall’ has three representations in the Tiv language: *gilgal*, *girgar* and *gilgar*. The correct spelling of the three words is *gilgar*. Aor (2020b:61) maintains that ‘l and r are pseudo-allophones in Tiv.’ It is obvious that the above is not on loan phonology but on spelling errors. Again, Aor (2021a) treats epenthesis, elision, metathesis and eye-dialects as the implications that English loan-words have on the study of the Tiv language. Aor (2021a:138) identifies metathesis in the English-Tiv loan-words.

Table 2: Aor’s (2021a:138) Metathesis in the English-Tiv loan-words

English Words	Loans in Tiv	Metathesized letters	Meanings
Apple	<i>Apel</i>	<i>l</i> after <i>e</i>	a hard round fruit that has red ...
Candle	<i>kyendul</i>	<i>l</i> after <i>e</i>	a stick of wax that gives light
carbuncle	<i>karbunkel</i>	<i>l</i> after <i>e</i>	a red jewel, especially a garnet
chronicle	<i>kronikel</i>	<i>l</i> after <i>e</i>	a record of historical events
honourable	<i>honorabul</i>	<i>l</i> after <i>u</i>	somebody with honour
Kettle	<i>kyetul</i>	<i>l</i> after <i>u</i>	container for boiling water
Marble	<i>mabel</i>	<i>l</i> after <i>e</i>	a type of hard rock
Myrtle	<i>mertel</i>	<i>l</i> after <i>e</i>	a kind of sweet-scented tree
tabernacle	<i>tabernakel</i>	<i>l</i> after <i>e</i>	box for keeping holy bread/wine
Table	<i>tebul</i>	<i>l</i> after <i>u</i>	a four-legged furniture
Temple	<i>tempel</i>	<i>l</i> after <i>e</i>	a building where people worship
Singlet	<i>shingil</i>	<i>l</i> after <i>i</i>	verse

English-Tiv loan-words do not allow coda consonant clusters. As a repairing strategy, vowels are sandwiched between the two consonant sounds. The above table is on the swapping or transposition of vowels to break consonant clusters. Aor and Damkor (2021:5) and Aor (2012:129-130b) confirm that ‘Tiv language does not have voiceless inter-dental fricative, so it is easier for words that have the /θ/ to be written as voiceless alveolar stop /t/’. The two authors cite the following words with /θ/, which are pronounced as /t/ in the Tiv language in the table below:

Table 3: Phonemic Replacement of English /θ/ with Tiv /t/

English Word	Transcription	Loan-word	Transcription	New Phoneme
Esther	/esθə/	<i>Eseta</i>	/esetə/	/t/
Ethiopia	/i:θiəʊpiə/	<i>Etioṗia</i>	/etioṗiə/	/t/
Methuselah	/məθju:zələ/	<i>Metusela</i>	/metuselə/	/t/
Nazareth	/nəzərəθ/	<i>Nasareti</i>	/nəsəreti/	/t/
Nathaniel	/nəθæniəl/	<i>Nataniel</i>	/nætæniəl/	/t/
Ruth	/ru:θ/	<i>Rutu</i>	/rotu/	/t/
Seth	/seθ/	<i>Setu</i>	/setu/	/t/
Timothy	/timəθi/	<i>Timoteu</i>	/timoteu/	/t/

It is unarguably clear that phonemic substitution in the English-Tiv loan phonology is still in its infant stage. Aor attempts are on the phonological effects and functions of English loan-words on the Tiv grammar, the diachronic linguistic study of phonological changes in the Tiv grammar and graphological deviations in the Icighan Bibilo. Aor and Damkor hinge on the phonological effects and functions of English loan-words on the Tiv grammar. Substitution as a phonological process was totally omitted in Aor’s (2021) study. The foregoing review clearly shows the research gap the author attempts to fill.

2.2 Theoretical framework

This study adopts LaCharite and Paradis’ (2005) phonological repair or phonological stance model and Calabrese Andrea’s (2009:69) acoustic approximation or perceptual stance to repair English phonemes with Tiv phonemes and to also approximate English phonemes with Tiv ones. The phonological repair or phonological stance model by LaCharite

and Paradis states that bilinguals borrow loan-words from the source language, and when those loan-words are incorporated into the target language, they undergo certain modifications. The phonotactic structures of human languages are not the same. Therefore, when loan-words are taken into the recipient languages, not all the phonemes are retained. The recipient languages insert phonemes that are applicable to their own phonotactic structures. These phonemic replacements enhance easy articulation of the loan-words; thus repairing the illicit phonotactic constraint of the recipient language. The substitutions of consonant clusters, especially at the coda, vowels and consonants that are not found in the Tiv phonological structure are the main reasons that the author adapts this theory in this study to repair such absent phonemes.

Calabrese Andrea’s (2009:69) acoustic approximation or perceptual stance model avers that loan-words are nativized because of their phonemic similarities. Calabrese Andrea opines that acoustic approximation model was first propounded by Hermann Paul in 1880. According to Paul, a foreign speaker matches or approximates foreign segments with the ones that resemble the former in his or her language. This theory is effective in this study because English-Tiv loan phonology survives as a result of phonemic approximation or what Peperkamp and Dupoux (2003) call ‘acoustic proximity’. Phonemes are approximated during perception. Tiv loan phonology does not have /θ/, /ð/, /ʒ/, /ʌ/, /ə/ phonemes and it therefore approximates the aforementioned phonemes to /t/, /d/, /ʃ/, /ɔ/ or /ɔ:/ and /æ/, respectively.

3 Research methodology

Primary datum has been collected using the observation method. According to Kothari (2014:17), the observation method implies the elicitation of data by an observer without interviewing the respondents. The author also used documentary sources such as textbooks, journals, projects, dissertations, theses, and dictionaries to elicit data, especially for literature review. As for the sample design, the author used deliberate sampling to elicit the data in this study. The researcher jotted down those words that Tiv language borrowed from the English language, identified and classified phonemic substitutes.

4 Findings and discussions

This study deals with phonemic substitution in English-Tiv loan phonology. Therefore, this study has been pigeon-holed into two main parts: discussions of vowel and consonant substitutions in the English-Tiv loan phonology and the implications of English-Tiv loan phonology on the study of the Tiv grammar.

Discussion of consonant and vowel substitutions in the English-Tiv loan phonology

Substitution, which is the thrust of this study, is prominent in the English-Tiv loan phonology. When English words are loaned into the Tiv language, the non-existing phonemes in the recipient language are being substituted with the donor language. Hock (1991) affirms that in substitution, a loan word is substituted to a closely related phoneme in the target language. Hussain, Mahmood and Mahmood (2011:4) and Damilare (2015:41) define substitution as the replacement of phonemes that conform to the recipient languages’ phonotactic structure. Vowel and consonant substitutions may result from their absence in the Tiv language or preference for one vowel or consonant over another. Phonemes are substituted to enhance easy articulation.

Consonant substitutions or approximation as a feature of English-Tiv loan phonology

A recipient language replaces consonant phonemes that are not available in her language when native speakers want to pronounce such loanwords. This phenomenon exists between the English and the Tiv languages as seen in /t/ replacing /θ/ and /d/ substituting /ð/ in the examples below:

English	Tiv	Consonantal Differences	
Bartholomew	<i>Bartolomeu</i>	/t/	/θ/
Bethany	<i>Betani</i>	/t/	/θ/
Bethel	<i>Betel</i>	/t/	/θ/
Ethiopia	<i>Etiopia</i>	/t/	/θ/
Matthew	<i>Mateu</i>	/t/	/θ/
Nathaniel	<i>Nataniel</i>	/t/	/θ/
Ruth	<i>Rutu</i>	/t/	/θ/
Thaddaeus	<i>Tadeu</i>	/t/	/θ/
Theophilus	<i>Tiofilu</i>	/t/	/θ/
Timothy	<i>Timoteu</i>	/t/	/θ/
Thomas	<i>Toma</i>	/t/	/θ/
Father	<i>Fada</i>	/d/	/ð/

Tiv language does not have voiceless /θ/ and voiced inter-dental /ð/ fricatives in her phonological structure. Tiv language therefore substitutes /θ/ with /t/ and /ð/ with /d/ which are equivalences in the phonology of Tiv. Furthermore, most loan-words that the Tiv language adapted changed /s/ to /ʃ/ and /z/ to /ʒ/ or /z/ as the following words illustrate:

English	Tiv	Consonantal Differences	
Amos	<i>Amoshi</i>	/s/	/ʃ/
Amoz	<i>Amoshi</i>	/s/	/ʃ/
Elizabeth	<i>Elisabetu</i>	/z/	/s/
Nazareth	<i>Nasareti</i>	/z/	/s/
Sidon	<i>Shidon</i>	/s/	/ʃ/
Simon	<i>Shimon</i>	/s/	/ʃ/
Synagogue	<i>shinagoge</i>	/s/	/ʃ/
topaz	<i>topashi</i>	/z/	/ʃ/
Zarephath	<i>Sarefati</i>	/s/	/ʃ/
Zechariah	<i>Sekaria</i>	/z/	/s/
Zion	<i>Sion</i>	/z/	/s/
Zoar	<i>Soar</i>	/z/	/s/

There is no obvious reason why /s/ substitutes /ʃ/ and /z/ replaces /s/ or /ʃ/. Tiv language has /ʃ/, /s/ and /z/ as phonemes, distinctive or contrastive sounds. This type of phonemic replacement is as a result of inconsistencies in the translation. Suffice it to say that the current Tiv orthography was designed by the missionaries who later used such letters in the translation of the Icighan Bibilo (Holy Bible). In addition to above, digraph ‘ph’ in English is an equivalence of voiceless labio-dental fricative /f/ which is a substitute of ‘f’ in the Tiv language. The following are examples:

English	Tiv	Different letters, same sound	
Ephod	<i>efodi</i>	/f/	/f/
Ephraim	<i>Eferaim</i>	/f/	/f/
Pharaoh	<i>Farao</i>	/f/	/f/
Philadelphia	<i>Filadelfia</i>	/f/	/f/
Philemon	<i>Filemon</i>	/f/	/f/
Philip	<i>Filibu</i>	/f/	/f/
Philippi	<i>Filipi</i>	/f/	/f/
Prophet	<i>profeti</i>	/f/	/f/
Theophilus	<i>Tiofilu</i>	/f/	/f/

The substitution of ‘f’ in the place of ‘ph’ is not a strange phenomenon. For instance, the ‘ph’ digraph, when transcribed, will give /f/ phoneme. Again, the letter ‘k’ in Tiv replaces the English letters ‘c’, ‘k’, ‘q’, ‘x’, respectively. Additionally, Tiv letter ‘c’ is an equivalence of the English digraph ‘ch’. The following examples illustrate the above rules.

English	Tiv	Same Phonemes	
cake	<i>kyeke</i>	/k/	/k/
cage	<i>kyeji</i>	/k/	/k/
coat	<i>koti</i>	/k/	/k/
carton	<i>katôn</i>	/k/	/k/
carbide	<i>kabaa</i>	/k/	/k/
class	<i>kelase</i>	/k/	/k/
college	<i>kôleeji</i>	/k/	/k/
condom	<i>kôndôm</i>	/k/	/k/
cup	<i>kôôpu</i>	/k/	/k/
onyx	<i>oniki</i>	/k/	/k/
change	<i>cenji</i>	/tʃ/	/tʃ/
charge	<i>caaji</i>	/tʃ/	/tʃ/
patch	<i>paci</i>	/tʃ/	/tʃ/

Contrastively, English and Tiv ‘j’ have different values. English letter ‘j’ /dʒ/ is replaced by Tiv letter ‘y’ /j/ as seen in the following examples:

English	Tiv	Consonantal Differences	
Jacob	<i>Yakob</i>	/dʒ/	/j/
James	<i>Yakobu</i>	/dʒ/	/j/
Jeremiah	<i>Yeremia</i>	/dʒ/	/j/
Jesus	<i>Yesu</i>	/dʒ/	/j/
Job	<i>Yobu</i>	/dʒ/	/j/
John	<i>Yohane</i>	/dʒ/	/j/

Jonathan	Yonatan	/dʒ/	/j/
Joseph	Yosev	/dʒ/	/j/
Joshua	Yoshua	/dʒ/	/j/
Josiah	Yosaia	/dʒ/	/j/
Judah	Yuda	/dʒ/	/j/

In the similar vein, Tiv consonant 'j' /dʒ/ substitutes English 'ge' or 'ji' /dʒ/ as in the following word: Naijeria – Nigeria, peiji – page, kôleeji – college, injin – engine, injinia – engineer, jôôji – judge, saajen – sergeant, cenji – change, kyeji – cage, caaji –charge, baaji – barge/badge and masenja – messenger.

Vowel substitutions in English-Tiv loan phonology

Some English words loaned into the Tiv language do not have vowels that Tiv language has in her phonology. The English language has schwa /ə/ [-er, -re, -or spellings] which Tiv language replaces it with 'a', 'o', 'ô' in her spelling system and transcribes such words as /æ/ and /ɔ/, respectively. For instance, the following words: metre (mita), litre (lita), centimetre (sentimita), kilometre (kilomita), letter (leta), lighter (laita) end with /ə/ and /æ/; razor (rezô), carton (katôn), conductor (kôndôkutô), pastor (pasetô), doctor (dôkutô) have /ə/ and /ɔ/; teacher (tica), commissioner (kômishena), driver (deraba), messenger (masenja), Esther (Eseta), power (pawa) have ə/ and æ/ and motor (mato) has /ə/ and /ɒ/.

Also, Tiv phonology approximates /ʌ/ to /ɔ/ or /ɔ:/ ([o] or [ôô] spellings) hence /ʌ/ is not found in the Tiv language. The following are the examples: bucket (bokoti), cup (kôôpu), judge (jôôji) and bus (bôôsu). Tiv letter 'i' substitutes the English letter 'y' when it occurs in the middle or end of words. The following examples illustrate this assertion: Babylon – Babilon, Syria – Siria, Cyprus – Shiperu, Bethany – Betani, Cyrene – Shirine, Libya – Libia, Lydia – Lidia, Tyre – Tiru, Egypt – Igipiti, party – pati, Saturday –Sati, Smyrna – Semurna, Thyatira – Tiatira, Lydda –Lida, Pamphylia – Pamfilia, Lystra – Listera.

Implications of English-Tiv loan phonology in the study of the Tiv grammar

Phonemic substitutions have a lot of phonological implications such as declusterisation and decodification of consonants; alteration in the syllabic structures; substitutions in English-Tiv loan phonology brings about pseudo-homophones; phonemic substitutions in English-Tiv loan phonology brings about pseudo-homographs; phonemic substitutions lead to dissimilation; phonemic substitutions change the state of the glottis, manner and place of articulations and phonemic substitutions change front, central back; half-open, open, half-close and open vowels.

English-Tiv loan phonology results in declusterisation and decodification of consonants

English-Tiv loan phonology only permits few words that begin with 'pr' and 'kr' clusters at the word-initial positions such as profeti – prophet, pristi – priest and Kristu – Christ. Apart from 'pr' and 'kr' clusters, English-Tiv loan phonology does not accept clusters at word-initial and word-final positions. Again, Tiv only permits 'l', 'm', 'n', 'v', in borrowed words to act as codas, final consonants. Declusterisation and decodification of consonants have been discussed below.

Initial consonant cluster deletion

The words below indicate that the insertions of 'i', 'u' and 'e' have resulted in initial cluster deletion and syllable elongation. In kilimishi, letter 'l' replaces letter 'r'. Some people replace 'l' with 'r' as in pelamali. Few examples of initial declusterisation have been shown below:

<u>brush</u>	<i>burôsh</i>	r
<u>Christmas</u>	<i>Kilimishi</i>	l (r)
<u>class</u>	<i>kelase</i>	r
<u>classis</u>	<i>kelasi</i>	l
<u>drum</u>	<i>durôm</i>	r
<u>fridge</u>	<i>firiji</i>	r
<u>glass</u>	<i>gelase</i>	l
<u>plate</u>	<i>pelengi</i>	l
<u>president</u>	<i>peresiden</i>	r
<u>primary</u>	<i>peramari</i>	r
<u>prison</u>	<i>purusu</i>	r
<u>screwdriver</u>	<i>sukuderaba</i>	kr
<u>snow</u>	<i>senou</i>	n
<u>store</u>	<i>setor</i>	t

Medial consonant cluster deletion

Medial consonant cluster deletion is the elision of middle consonant. This deletion brings about vowel epenthesis to 'repairs' the pronunciations of the affected words. Letter 'e' is inserted between 'b' and 'r', 's' and 'k', 'k' and 'r' and 's' and 'm'.

Gab <u>ri</u> el	Gaberiel	e
Damasc <u>u</u> s	Damaseku	e
Euchar <u>i</u> st	yukari	a
Isr <u>a</u> el	Iserael	e
Magd <u>a</u> lene	Magedalena	e
Hebr <u>o</u> n	Heberon	e
bapt <u>i</u> sm	batisema	e

Coda deletion

Coda deletion, the deletions of final consonant sounds, is what is termed in this paper as decodalisation. The deletion of coda automatically changes closed syllables to open syllables

English	Tiv	Deleted Consonant(s)
carbide	<i>kabaa</i>	d
diamond	<i>diamon</i>	d
Thomas	<i>Toma</i>	s
Titus	<i>Titu</i>	s
Dorcas	<i>Dorka</i>	s
Leviticus	<i>Levitiku</i>	s
Herodias	<i>Herodia</i>	s
Secondus	<i>Sekondu</i>	s

The above words show that English-Tiv loan phonology does not permit 'd', 'nd' and 's' at coda level. Therefore, the deletion of the last consonant sounds results in open syllable structures.

Alteration in the Syllabic Structures

Syllabic structure of English language changes when words are loaned into the Tiv language. These alterations are: long vowels change to short ones, long vowels change to diphthongs, diphthongs change to short vowels, short vowels change to long ones.

Short vowels change to long vowels

cup	<i>kôôpu</i>	/ʌ/	/ɔ:/
judge	<i>jôoji</i>	/ʌ/	/ɔ:/
bus	<i>bôôsu</i>	/ʌ/	/ɔ:/
ice-fish	<i>afiishi</i>	/ɪ/	/i:/
college	<i>kôleeji</i>	/ɪ/	/i:/

Long vowels change to short vowels

English	Tiv	Phonemic Changes	
carbide	<i>kabaa</i>	/a:/	/æ/
court	<i>koti</i>	/ɔ:/	/ɒ/
ball	<i>bol</i>	/ɔ:/	/ɒ/
carton	<i>katôn</i>	/a:/	/ɔ/
teacher	<i>tica</i>	/i:/	/ɪ/

Long vowels change to diphthongs

Matthew	<i>Mateu</i>	/u:/	/eu/
Thaddaeus	<i>Tadeu</i>	/u:/	/eu/
Zebedee	<i>Sebedeu</i>	/i:/	/eu/
Thaddaeus	<i>Tadeu</i>	/u:/	/eu/
Bartholomew	<i>Bartolomeu</i>	/u:/	/eu/
Bartimaeus	<i>Bartimeu</i>	/u:/	/eu/
Timaeus	<i>Timeu</i>	/u:/	/eu/
Alphaeus	<i>Alefeu</i>	/u:/	/eu/
Zacchaeus	<i>Sakiu</i>	/u:/	/ɪʊ/
Andrew	<i>Anderia</i>	/u:/	/ia/
deacon	<i>diakon</i>	/i:/	/ia/

Diphthongs change to short vowels

ice-fish	<i>afiishi</i>	/aɪ/	/æ/
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cage	<i>kyeji</i>	/ei/	/e/
Tyre	<i>Tiru</i>	/ai/	/ɪ/
coat	<i>koti</i>	/əʊ/	/ʊ/
Cyprus	<i>Shiperu</i>	/ai/	/ɪ/
power	<i>pawa</i>	/aʊ/	/æ/
wire	<i>waya</i>	/ai/	/æ/
tie/tyre	<i>taya</i>	/ai/	/æ/
Pilate	<i>Pilatu</i>	/ai/	/ɪ/
Silas	<i>Shila</i>	/ai/	/ɪ/
Siloam	<i>Shiloam</i>	/ai/	/ɪ/
paper	<i>pipa</i>	/ei/	/ɪ/

Phonemic substitutions in English-Tiv loan phonology bring about pseudo-homophones

Pseudo-homophones set in when both words from donor and recipient languages have different spellings but have the same pronunciations and meanings. Ideally, homophones do not have the ‘same meaning’; that is why the words in the table below are described as pseudo-homophones.

Table 4: Phonemic substitutions and pseudo-homophones

Donor Language: English	Recipient Language: Tiv	Diff. spelling & same sound
Dye	<i>Dai</i>	daɪ
wheel	<i>Wiil</i>	wi:l
wine	<i>wain</i>	wain
Fir	<i>Fer</i>	fɜ:
Mile	<i>mail</i>	mail
Pine	<i>pain</i>	pain
barley	<i>baali</i>	ba:lɪ
Babylon	<i>Babilon</i>	bæbɪlən
Corban	<i>Korban</i>	kə:bæn

Phonemic substitutions bring about pseudo-homographs

The words below have the same spellings in English and Tiv languages but have different pronunciations and meanings. They are referred to as pseudo-homographs because full homographs do not have the ‘same meanings’. Adding credence to the above explanation, the examples below show such striking differences.

Words	English	Tiv	Phonemic Differences	
Babel	/beɪbəl/	/bæbel/	/ei/-/æ/	/ə/-/æ/
Solomon	/sələmən/	/sələmən/	/ə/	/ʊ/
Salem	/seɪlem/	/sælem/	/ei/	/æ/
Daniel	/dæniəl/	/dæniəl/	/ɪə/	/ie/
Samaria	/səmeəriə/	/sæmæria/	/ə/-/æ/ /eə/-/æ/	/ɪə/-/ɪə/
Edom	/ɪdəm/	/edəm/	/ɪ/-/e/	/ə/-/ʊ/
Sodom	/sɒdəm/	/sədəm/	/ə/	/ʊ/
Satan	/seɪtən/	/sætæn/	/ei/-/æ/	/ə/-/æ/

Phonemic substitutions lead to dissimilation

Extreme cases of substitution lead to dissimilation. Dissimilation sets in when the phonemes of a source language become dissimilar to the target language. Sometimes, scholars or researchers may not know that such words are not the equivalences of the borrowed words. This phenomenon affects phonemes, syllables and phrases as shown in the examples below: Sefanu (Stephen), gomna (governor), purusu (prison), kaaci (catechist), katikisema (catechism), jôôji (judge), wadele (white dress), ataban (out of bounds), iyôngopania (young pioneer), tsofia (surveyor), sule (shilling), pam (pound), sukuderaba (screw-driver).

Phonemic substitutions change the state of the glottis, manner, and place of articulations

English-Tiv loan phonology is capable of changing the state of the glottis manner and place of articulations. These changes are a result of the non-availability of some phonemes in the target language. Under manner of articulation, we have plosives, fricatives, affricates, nasals, approximants, lateral and liquid. The above sounds in the English language give rise to different sounds when loaned into the Tiv language. This affects the manner that such words are articulated in the source language. The examples below throw more light on such phenomena.

- i. Fricative /v/ changes to nasal /m/: governor – gomna.
- ii. Fricative /ð/ changes to plosive /d/: Father – Fada and /v/ changes to /b/: shovel – shebul
- iii. Plosive /θ/ changes to fricative /t/: Bethel – Betel and Nathan – Natan.
- iv. Nasal /n/ changes to lateral /l/: cinema – silima.

- v. Affricate /dʒ/ changes to plosive /g/: evangelism – ivangeli.

Under the state of the glottis, the voiced or voiceless sounds in the source language changed to voiceless sounds in the target language. Some of these changes are:

- i. Voiceless bilabial plosive /p/ changes to voiced bilabial /b/: Philip – Philibu.
- ii. Voiced labio-dental /v/ changes to voiceless labio-dental /f/: Eve – Ifa, Joseph – Yosev, Stephen – Sefanu, cover – kofa, surveyor – tsofia, file – vaya.
- iii. Voiced palato-alveolar fricative /ʒ/ changes to voiceless palato-alveolar fricative /ʃ/: television – televishen.
- iv. Voiceless velar plosive /k/ changes to voiced velar plosive /g/: agriculture – agorogoja.
- v. Voiceless palato-alveolar affricate /tʃ/ changes to voiced palato-alveolar /dʒ/: agriculture – agorogoja.
- vi. Voiced alveolar stop /d/ changes to voiceless alveolar stop /t/: card – kati.
- vii. Voiced velar nasal /ŋ/ changes to voiceless velar nasal /k/: dragon – derakon.

These changes are also pervasive in the place of articulation. Certain sounds that are classified under bilabial, labio-dental, dental, glottal, palatal, palato-alveolar in the source language change to different places of articulation in the target language. Some examples are given below:

- i. Inter-dental sound /θ/ replaces alveolar /t/: Timothy – Timoteu, Ruth – Rutu.
- ii. Bilabial sound /m/ replaces alveolar /n/: bam – bank, pam – pound.
- iii. Alveolar sound /n/ replaces velar /ŋ/: silin – ceiling, cin gôm – chewing gum.
- iv. Palato-alveolar /dʒ/ replaces palatal /j/: Jerusalem – Yerusalem.
- v. Bilabial sound /b/ replaces labio-dental /v/: shebul – shovel

Phonemic substitutions change front, central back; half-open, open, half-close and open vowels

- i. Close vowel /ɪ/ changes to half-close vowel /e/ as in olive – olev.
- ii. Half-close vowel /e/ changes to half-open vowel /æ/ as in: messenger – masenja.
- iii. Half-open vowel /ə/ changes to open vowel /æ/ as in: answer – ansa, hammer – hama.
- iv. Open vowel /æ/ changes to half-close vowel /e/ as in Samson – Semson, Paradise – Peradiso.
- v. Front vowel /ɪ/ changes to back vowel /ʊ/: shilling – sule, prison – purusu.
- vi. Central vowel /ɜ:/ changes to back vowel /ɔ:/ as in: church – côôci, nurse – nôôsu; central vowel /ə/ changes to front vowel /æ/: digger – diga, tipper – tipa, bulldozer – budoza.
- vii. Back vowel /ʊ/ changes to front vowel /æ/: office – afishi.

5 Conclusion

The potentials of phonemic substitutions as an integral aspect of loan phonology are immense in the study of the Tiv language. Substitution of phonemes is rule-governed, and this helps native speakers of Tiv to substitute foreign words based on the phonemes that the Tiv language has. Substitutions, epentheses, elisions, metatheses are the main components of loan phonology in Tiv, and the mastery of them enriches her phonological structure. The study clearly demonstrates that English-Tiv loan phonology leads to coda declusterisation. Tiv phonology does not have /θ/, /ð/, /ʒ/, /ʌ/ and /ə/ phonemes; so they are being replaced by /t/, /d/, /ʃ/, /ɔ:/ and /æ/, respectively. It has been discovered from the above study that some loan-words maintain their original spellings but have different pronunciations. Finally, it has been revealed that no English-Tiv loan-word ends with 'c', 'd', 'f', 'g', 'h', 'j', 'k', 'ph', 't', 'th', 's', 'w', 'y', 'z'.

This study introduces English-Tiv loan phonology, which can be effective in diachronic, contact, and comparative linguistics. Additionally, the study establishes that English-Tiv phonological structures differ greatly. Furthermore, the study can also help in identifying speech sounds that both languages have or do not have. Again, this paper supports that most letters or sounds are substituted because of their absence in the target language or because of approximation. Theoretically, the above theories can help in approximating and repairing phonological structures of target languages. Pedagogically, this paper is contrastive in nature, which shows that it will serve as a ready-made source for researchers, writers, and lecturers.

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