PALATALISATION IN THE TIV PHONOLOGY

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ABSTRACT

Palatalisation is a well-known phonological process and a repairing strategy in the Tiv phonology which has not been adequately explored. Palatalisation in the Tiv phonology examines the phonotactic constraints of palatalisation and explores the functions that palatalisation performs in the Tiv phonology. This study has adopted Generative Phonological Model that was jointly co-authored by Chomsky and Halle's (1968) Sound Patterns of English (SPE). The study used participant-observation instrument in this study. The study used both primary and secondary materials for gathering of data. In this study, the researcher got raw data, transcribed, translated and classed them into phonotactic constraints and functions of palatalisation in Tiv. From this study, it has been discovered that Tiv palatalisation has phonetic and orthographic classes; palatalisation results in consonant clusters, pluralisation, epenthesis, deletion and metathesis; palatalisation is a phonological process, secondary articulation and phonological change. The study is, therefore, recommended to scholars, lecturers and writers who are learning, teaching, researching and writing scholarly works on Linguistics, Nigerian and African Languages and English Language.

Keywords:Palatal epenthesis, palatalisation, phonology, phonotactics and sound change.

1. INTRODUCTION

Tiv, a language spoken in the north-central geopolitical states of Benue, Nassarawa, Taraba, Plateau and southern Cameroon, has secondary articulatory and phonological processes in her phonology. The phonological processes such as palatalisation, elision, epenthesis, labialisation, assimilation, dissimilation, metathesis and fusion are used to palatalise, delete, insert, labialise, assimilate, dissimilate, transpose and fuse phonemes and syllables in words. Palatalisation is a major phonological and secondary articulatory process in which the tip of the tongue articulates with the hard palate. Tiv language has four triggers of palatalisation such as letter *y* in *ikyume* /ɪkʲʊme/ python, *igyo* /ɪgʲɒ/ pig, Yesaia /jesaɪæ/ Isaiah; letter *i* in *itiar* /ɪtʲaː/ tribes, *iniongo* /ɪnʲɒŋgo/ feast; letter *w* in words like *iwa* /ɪʲwæ/ dog, *iwan* /ɪʲwæn/ deformity and the last trigger of palatalisation is the on-glide in *iveren* /ɪvʲeren/ blessing and *ifan* /ɪfʲæn/ curse. The consulted studies have indicated that palatalisation in Tiv has not been given much scholarly attention. It has been treated as a phonological process and phonological change. There is a paucity of literature on palatalisation in Tiv. It is this gross underrepresentation of Tiv palatalisation that this study seeks to address. The study therefore examines phonotactic constraints of Tiv palatalisation and explores the functions of palatalisation in the Tiv phonology.

2.LITERATURE REVIEW

This sub-section deals with conceptual and empirical reviews. The concepts of phonology, phonotactics and palatalisation have explained and various scholarly studies have been reviewed in this study.

Phonology, according to McArthur (1992), is derived in the 'eighteenth century from the Greek combining forms *phono-* means 'sound or voice' and *-logy* refers to the 'study'. McArthur defines phonology as the study of sound patterns in human languages. Furthermore, Trask (1996:275) refers to phonology as the branch of linguistics that deals 'with the relations among speech sounds in particular languages'. Trask (1999:158) simply views phonology as the 'sound systems of languages'. Similarly, Crystal (2008) sees phonology as a 'branch of linguistics that studies the sound systems of languages'. The above definitions affirm that phonology is a branch of descriptive linguistics. Also, the definitions points out that phonology studies speech sounds, sound systems, sound patterns of particular languages. Phonology is a functional phonetics, that is, it formulates or ascribes rules to sound systems of individual languages to follow. Phonology is bifurcated into segmental and suprasegmental. Segmental phonologydeals with the study of segments or phonemes whereas suprasegmental, prosodic or non-segmental phonologystudies phonological features that are more than one segment. In a nutshell, phonology of any given language is governed by certain rules.

Phonotactics,according to Bussmann (1998), studies the combinations of sounds permitted in language. Trask (1996) states that phonotactics is the arrangement of phonemes within a word, a morpheme or a syllable. Similarly, Crystal (2008) affirms that phonotactics isthe sequential arrangements of phonological units. Carr (2008) looks at phonotactic constraintsas permissible sound sequence that can appear in a given position in a syllable. The above definitions see phonotactics as allowable sound combinations within a syllable or word. Sounds are not arbitrarily structured; they have certain restrictions. These restrictions are based on the environment in which they appear. Some phonemes may appear at word-initial, word-medial and word-final positions. Some may appear at the beginning and middle of words and others may come in the middle and end. Phonotactic constraint is language-specific. This study treats the phonotactic constraints of Tiv palatalisation.

Palatalisation, according to Trask (1996), is a secondary articulation which involves the raising of the front of the tongue towards the palate. International Phonetic Association transcribes palatalisation by using a superscript [^{j}] as in [p^j], [b^j], [t^j], [d^j], [k^j] and [g^j]. Bussmann (1998) defines palatalisation as a sound change process which is 'conditioned through assimilation, in the place of articulationof consonants and vowels towards the hard palate'. Cavar (2004) defines palatalisation as all kinds of alternation of consonants in the context of front vowels and these alternations affect the language structure phonetically, phonologically and morphologically. Crystal (2008) refers to palatalisationas any articulation that involves a movement of the tongue towards the hard palate. According to Carr (2008), palatalisation is a processof converting non-palatal sounds to palatal sound. The above definitions look at palatalisation as a secondary articulation, sound change process, a kind of assimilatory process and articulation of sound that involves the tongue and the hard palate.

Empirical Review

Jacobs and van de Weijer's (1992) study describe processes of palatalisation in a three-feature geometry proposal. They examine the concept of palatalisation and present palatalisation processes in the phonological feature models. Chitoran (2001) asserts that

palatalisation forms plural nouns and adjectives and second person singular when it appears at the beginning of words. Padgett (2003) contrasts palatalised and non-palatalised consonants in Russian and his study is within a purview of sound change. Bettoni-Techio and Koerich (2006) focus on how Brazilian learners of English palatalise final alveolar stops. Bateman (2007) and Kochetov (2011) distinguish two contexts of palatalisation which are morphophonological and phonological. According to Bateman and Kochetov, morphophonological context is restricted to certain morphological forms and phonological context is unrestricted morphologically. As a way of identifying palatalised and unpalatalised sounds, Compton and Dresher (2008) affirm that Inuit dialects use 'strong i' to show palatalisation whereas 'weak i' indicates unpalatalised sound. Bateman (2011) defines and classifies palatalisation, discusses sounds that can be palatalised and the sounds that trigger palatalisation. Pritchard (2012) investigates the phonetic qualities of the palatalised consonants of Standard Bulgarian experimentally. Olivier (2012) investigates the history of yod dropping and yod palatalisation in the English language. Basiru (2015) identifies sounds that are orthographically non-labialised and non-palatalised but realised as labial and palatal sounds and examines phonological rules that result in labialisation and palatalisation in Hausa language.

Bradley's (2015) study establishes descriptive generalisations based on the phenomena of labialisation and palatalisation across different Judeo-Spanish dialects. Krämer and Urek (2016) define palatalisation, give a typological overview of palatalisation across the world's languages and finally discuss targets and outputs of palatalisation. Battisti and Hermans (2016) compartmentalised palatalisation based on their effects on the target segment: secondary palatalisation and full palatalisation. In secondary palatalisation, the segment acquires secondary articulation and full palatalisation involves a change in primary place of articulation, or in place and manner of articulation. Lengeris andKappa (2016) investigate palatalisation and affrication of voiceless velar stops in the Cretan dialect. These phonological processes are triggered by following front vowels /ɪ/ and /e/ and the high glide.

Martínez (2017) examines of velar palatalisation process as observed in the Catalan and in the Spanish of the bilingual speech community of Majorca, Spain. Lusenga, Mayisela and Thwala (2019) premise their study on the definition of palatalisation as a phonological process; identify the causes and sound changes as a result of palatalisation and investigate the function of palatalisation. Nanceand Kirkham (2020) examine the acoustic nature of laterals and nasals in Scottish Gaelic which is an endangered minority language. Bennett and Braverb (2020) aver that palatalisation in Xhosa is triggered by [w] and it affects only bilabials. Cavar, Rudman and Lulich (2020) identify phonemic and allophonic palatalisation in Polish and maintain that advanced tongue root, raising and fronting of the body of the tongue are stable conditions of palatalisation. Sokhey (2021) presents an acoustic and auditory study of palatalisation in the nasal consonant /n/ in Cairene Arabic dialect.

Aor and Anyam (2021:35) discuss old, modern and metathesized Tiv spellings that result in palatal cluster /jw/ as shown in Table 1.

Table 1: Palatal cluster /jw/ in Tiv

Old Spellings	Modern Spellings		Metathesized Spellings		Glosses
iwa	*iwya*	ɪwʲæ	*iywa*	ɪʲwæ	dog
iwen	*iwyen*	ɪwʲen	*iywen*	ɪʲwen	stone

ihwa	ihwya	/ɪhwʲæ/	iywa	/ɪɦʲwæ/	hour
ikwe	ikwye	/ɪkwʲe/	ikywe	/ɪkʲwe/	cracks
iwenge	ihwyenge	/ɪhwʲeŋge/	iywenge	/ɪɦʲweŋge/	waist
iwambe	iwyambe	/ɪwʲæɱbe/	iywambe	/ɪwʲæɱbe/	immunisation
iwo	iwyo	/ɹʲwɒ/	iywo	/ɪwʲɒ/	mountains
iwuna	iwyuna	/ɪwʲʊnæ/	iywuna	/ɹʲwʊnæ/	barns
iwura	iwyura	/ɪwʲʊræ/	iywura	/ɹʲwʊræ/	rains

Table 1 shows that letter *w* in the old, modern and metathesized spellings is palatalised. Aor and Anyam's study indicates that a single *w* can appear as a consonant cluster as shown in Table 1 In the modern spelling, *w* comes before *y* [wy] whereas in the metathesized spellings, *y* comes after *w* [yw]. The transcriptions in above table indicate that /jw/ and /wj/ clusters are permissible in the Tiv phonology. Aor (2020) and Aor and Damkor (2021) maintain that the insertion of voiced palatal consonant 'smoothens' the pronunciation of words that bear them. Palatal insertion is an example of excrescence, the insertion of consonant between consonants, and sound change device in Tiv. Aor and Damkor (2021:10) cite palatal insertion in Table 2 as a phonological change.

Table 2: Palatal insertion as a phonological change

Old Tiv Spellings	Modern Tiv Spellings	Epenthetic Sound	Glosses
adiguve	adigyuve	j	harp
bughpupu	byughpupu	j	splashing
ifan	ifyan	j	curse
iferor	ifyeror	j	evil person
igo	igyo	j	pig
igungu	igyungu	j	hill
ihom	ihyom	j	enmity
ikaior	ikyaior	j	the young
ikav	ikyav	j	goods
ikese	ikyese	j	basket
ikôm	ikyôm	j	corpse

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ikon	*ikyon*	j	tree
ikondo	*ikyondo*	j	cloth
ikônough	*ikyônogh*	j	chair
ikov ikov	*ikyov ikyov*	j	generations
ikua ikua	*ikyua ikyua*	j	near
mbaihomov	*mbahyomov*	j	enemies

The difference between Tiv old spellings and modern spellings is the insertion of a voiced palatal approximant /j/. The pronunciations and meanings of words in the old and modern spellings are the same. Yio (2021) discusses palatalisation as one of the aspects of phonological processes in Tiv. He maintains that palatalisation occurs when y comes after stops /p/, /b/, /t/, /d/, /k/ and /g/ and fricatives like /f/, /v/ and /h/ in Tiv words. By way of adding credence to his assertion, Yio (2021:110) states palatalisation rules thus: Plosive consonant sound is palatalised in an environment when it is preceded by a palatal approximant /j/ and fricative consonant sound is palatalised in an environment when it is preceded by a palatal approximant /j/.

The above studies critically examine definitions, types, formation, triggers of palatalisation, functions in English, Brazilian, Bulgarian, Hausa, Xhosa languages and Polish, Judeo-Spanish and Cairene Arabic dialects. The only studies that briefly mention Tiv language are Aor and Anyam's palatalised spellings which result in palatal cluster; Aor and Damkor's study that treat palatal /j/ as a sound change device. They did not discuss the formation of clusters, types and functions. Yio's study limits palatalisation to stops and fricatives.

Theoretical Framework

This study has adopted Chomsky and Halle's (1968) Generative Phonological Theory which is a strand of generative grammar.Clark, Yallop and Fletcher (2007:134) state that Generative Phonology is an integral part of transformational-generative theory. The thrust of this theory of linguistic description is to construct a grammar that would formulate or generate linguistic forms. This means that the phonology of Tiv grammar will generate phonological rules and principles which will be applied to the underlying forms of the language and yielding surface phonetic representations. Chomsky and Halle (1991) aver that palatalisation is a subsidiary articulation that consists in the superimposition of vowel-like articulation on the basic consonantal articulation.

In palatalisation the superimposed subsidiary articulation is [i]-like. They express this superimposed vowel-like articulation with the help of the features 'high,' 'low,' and 'back' which are used to characterise the same articulations when it appears in the vowel. They maintain that consonant neutral with respect to palatalisation and pharyngealisation are [-high] and [- back], since such configurations lack a constriction formed by the body of the tongue. They submit that palatalisation is a case of regressive assimilation; it occurs before front vowels and preserves points of articulations. Generative phonology is vitally important in this study because formulate rules that govern the phonotactic constraint of the Tiv palatalisation. These rules aids in identifying the functions of palatalisation in the Tiv grammar.

2.RESEARCH METHODOLOGY

'Palatalisation in the Tiv phonology' has adopted purposive non-probability sampling for data collection. Both primary and documentary sources were used in this study. The study made use of textbooks, journal articles, dictionaries, dissertations and theses which were used for conceptual and empirical reviews. The study used participant-observation instrument in this study. The researcher is from Tiv extraction, therefore he participated in assembling the data for this study and he also observed the conversations of other native speakers of Tiv. In this study, the researcher obtained raw data, transcribed, translated and grouped them into phonotactic constraints and functions of palatalisation in Tiv.

3. RESULTS AND DISCUSSIONS

This subsection treats the phonotactic constraints of Tiv palatalisation and the palatalisation performs in the Tiv grammar.

Phonotactic Constraints of Tiv Palatalisation

The voiced palatal approximant, yod or semi-vowel /j/ is a transitory phoneme in Tiv phonology. Gimson (1980:211) affirms that a semi-vowel has a rapid vocalic glide on a syllable sound of greater steady duration.' Tiv palatal approximant /j/ consists of a quick, smooth, non-fictional glide towards a following vowel sounds and has these features: it is an oral sound, the air passes through the vocal cavity; its manner of articulation is approximant; its place of articulation is palatal; its phonation or state of the glottis is voiced and it uses pulmonic airstream mechanism. Palatal /j/ is a vocalic glide and it is expected to have acoustic features similar to those of vowels. Figure 1 shows the representation of palatal /j/ in the Tiv vowel chart.
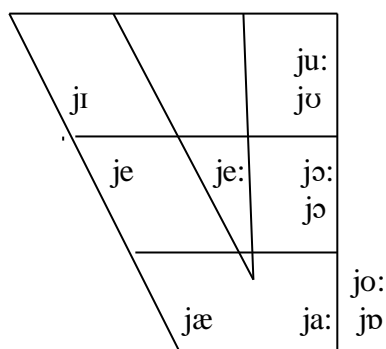
Figure 1: Representation of palatal /j/ in Tiv Vowel Chart

Figure 1 shows that palatal /j/ has the acoustic features of vowels and it can appear in the vowel chart like monophthongs. Palatal /j/ can appear at word-initial and middle of Tiv words as: *yisa* /jɪsæ/, *yima* /jɪmæ/ bar/block, *ya* /jæ/ eat, *yese* /jese/ scorpion, *yôô* /jɔ:/ announce, *ihyo* /ɪhʲɒ/ antelope, *yongo* /jɒŋgɒ/ cup, *iyô* /ɪʲɔ/, *yôngo* /jɔŋgɒ/ sheep, *yôô* /jɔ:/ proclaim, *yenge* /jeŋge/ glance, *ityu* /ɪtjʊ/ iron pipe, *yum* (intensifying adverb), *yugh* /ju:ɣ/ wrath, *ihye* /ɪhʲe/ handcuff, *ivyungu* /ɪvʲu:ŋgʊ/ owl, *igyo* /ɪgʲo/ pig, *igyô* /ɪgʲɔ/, *yer* /je:/ hide. Palatal approximant /j/ serves as diphthongal on-glide in the following words: *yiase* /jɪæse/ history, *yie* /jɪe/ scream, *yua* /jʊa/ to block, *yue* /jʊe/ brood, *you* /jɒʊ/ yam, *yough* /jɒʊɣ/ house and *yôugh* /jɔʊ/ iron.

Letter *i* is a disguised palatal /j/ sound and it only comes in the middle of Tiv words. Where *i* letter appears in some Tiv words, it is realised as /ʲ/ sound, not as a short vowel /ɪ/.

Table 3: Disguised /j/ in Tiv words

Words	Transcriptions	Meanings	Words	Transcriptions	Meanings

angbian	/æŋgbʲæn/	relation	*iniom*	/ɪnʲɒm/	bitter kola
biem	/bʲem/	group hunt	*iniôndo*	/ɪnʲɔndɒ/	sap
ihiar	/ɪhʲa:/	three	*iniongo*	/ɪnʲɒŋgɒ/	feast
imiar	/ɪmʲa:/	flute	*itiar*	/ɪtʲa:/	together
imiôngo	/ɪmʲɔŋgɒ/	together	*kpianger*	/kpʲæŋge:/	splash
ingbianjaki	/ɪŋgbʲæɲdʒækɪ/	jenny	*mliam*	/mlʲæm/	tears
iniaav	/ɪnʲa:v/	gifts	*tiev*	/ɪtʲev/	farm

The foregoing discussion has shown that palatalised /ʲ/ is compartmentalised into phonetic and graphological. The latter relies on the pronunciation. This type of palatalisation is realised when words are articulated. Phonetic palatalisation can also be said to be disguised because its formation does not depend on the presence of *y* /ʲ/. For instance, the spellings of *iveren* /ɪvʲeren/ blessing, *ivaa* /ɪvʲa:/ wound and *ikôm* /ɪkʲɔm/ barrenness do not have *y* in them but the transcriptions and pronunciations have palatal /ʲ/. Again, there is another set of phonetic palatalisation where letter *i* is sandwiched between a consonant and a vowel which is realised as palatal /j/ as indicated in Table 3. Lastly, letter w is a trigger for palatal /j/ as seen in *iwange* /ɾʲwæŋge/ spear, *iwanger* /ɾʲwæŋge:/ glory, *iwenge* /ɾʲweŋge/ waist, *iwuese* /ɾʲʊese/ praises, *iwasen* /ɾʲwæsen/ help, *iwen* /ɾʲwen/, *iwua* /ɾʲʊa/ gift, *iwer* /ɾʲwe:/ months, *iwambe* /ɾʲwæɱbe/ vaccination, *ikwe* /ɪkʲwe/ and Kwande /kʲwænde/ is another trigger of palatalisation in Tiv.

Palatal consonant clusters, too, have their formation rules which they obey. If a palatal consonant comes after another consonant then we have two consonants. Anywhere letter *y* appears in the Tiv word, it is palatalised. The letter *y* results in a voiced palatal consonant /j/. It is also noticed that some words with letter *i* in Tiv are palatalised, thus giving rise to two or more consonants. The insertion of *y* in the words that were written without *y* has given rise to these consonant clusters: *abya* /æbʲæ/ small hoe, idya /ɪdʲæ/ fornication, *ifyan* /ɪfʲæn/ curse, *igyamusu* /ɪgʲæmʊsʊ/ hell fire, *ihyange* /ɪhʲæŋge/ eaves, *imianger* /ɪmʲæŋge:/ bragging, *ikyange* /ɪkʲæŋge/ belts, *mlyam* /ɱlʲæm/ tears, *angbyanev* /æŋgbʲænev/ relations, *ikpan* /ɪkpʲæn/ slaves, *ikyange* /ɪkʲæŋge/ belt, *ipye* /ɪkpʲe/ bottle, *ityesen* /ɪtʲesen/ teaching, *ingbyer* /ɪŋgbʲe:/ loop, *ikpenbredi* /ɪkpʲenbredɪ/ loaves of bread, *ihyom* /ɪhʲɒm/ hatred, *ikyo* /ɪkʲɒ/ *imbyormnger* /ɪɱbʲo:ɱŋge:/ fountain, *ikyônough* /ɪkʲɔnʊɣ/ and *ingyôr* /ɪngʲɔ:/ sister.

The foregoing examples indicate that Tiv palatalisation comes after voiced and voiceless consonant sounds. Figure 2 shows voiceless palatal consonants are stops and fricatives. There are six voiceless palatal comprising four voiceless stop approximants /pʲ/, /tʲ/, /kʲ/, /kpʲ/and two voiceless fricatives /fʲ/ and /hʲ/ while there are eight voiced palatal consisting of four voiced stops /bʲ/, /dʲ/, /gʲ/, /gbʲ/, one fricative /vʲ/, one nasal /mʲ/, one lateral /lʲ/ and one approximant /jʷ/.

Figure 2: Phonotactics of Palatalised Consonant Clusters in Tiv

Manner of Articulation	State of the Glottis		Place of Articulation
	Voiceless	Voiced	
Stops	pʲ	bʲ	bilabial-palatal
	tʲ	dʲ	alveolar-palatal
	kʲ	gʲ	velar-palatal
	kpj	gbʲ	palatalised velar
Fricatives	fʲ	vʲ	labio-dental-palatal
	hʲ		glottal-palatal
Nasal		mʲ	bilabial-palatal
Lateral		lʲ	alveolar-palatal
Approximant		ʲw/ wʲ	palatal-nasal

Palatal sound is combined with voiceless consonants such as: /pʲ/, /tʲ/, /kʲ/, /kpʲ/, /fʲ/ and /hʲ/ and it loses its voicedness when it follows voiceless consonants. The consonant clusters are said to have voiceless palatal approximants because they start with voiceless consonants. The examples of voiceless palatal consonant clusters are:

/pʲ/   -- *ipyaven* division, *ipyasen* confession and *ipya* roads
/tʲ/   -- *tyumbe* booth, *tyuna* bitter leaf and *ityu* iron pipe
/kʲ/   -- *ikyua* near, *ikyume* python and *ikye* palm
/fʲ/   -- *ifyan* curse, *fyugh* and *fyagh* movements of objects or persons
/hʲ/   -- *hyungwa* pit, *ihyuundu* dust and *hunduu* madness
/kpʲ/   -- *ikpya* bag, *ikpye* bottle and *ikpyan* slaves

Palatalisation can also appear after voiced consonants such as:

/bʲ/   -- *abya* small hoe, *ibya* bag, *ibyanave* poverty and *ibyo* guilt
/dʲ/   -- *idya* fornication, *idyu* ear-shot, *indyer* beard and *dyange dyange* sticky
/gʲ/   -- *igyungu* hill, *ingyur* feathers, *igyuve* eagle an i*ngyeegh* numbers
/gbʲ/   -- *igbya* mother's home, *igbye* shaft, *igbyende* shell and *igbyanger* width
/vʲ/   -- *ivyeren* blessing, *ivyande* miracle, *ivyungu* owl and *ivyo* goat
/mʲ/   -- *amian* spots, *imon* necks, *môm* one and *imiôndo* anthill
/lʲ/   -- *ilyu* talking drum, *ilyam* speech, *lyemen* slippery and *alyaku* canary
/ʲw/   -- *iwyan* deformity, *iwyasen* help, *iwyanger* light, *iwyasen* help and *iwya* dog

Generally speaking, Tiv phonology has minute instances of /j/ cluster at the beginning of words. This is because most Tiv words begin with letter *i*. However, when letter *i* is deleted at word-initial, there will be clusters with a palatal sound as in *kpya* /kpʲæ/ bag, *bya* /bʲæ/ sack and *gbyang* /gbʲæŋ/ slapping sound. Tiv language has medial clusters of two consonants – *idya* /ɪdʲæ/ fornication, *ikya* /ɪkʲæ/ monkey; three medial clusters – *ingyur* /ɪŋgʲu:/ feathers, *mlyam* /mlʲæm/ tears, *igbende* /ɪgbʲende/ shell and four medial consonant clusters – *ingbianjaki* /ɪŋgbʲæŋdʒækɪ/ jenny, *ingbyer* /ɪŋgbʲe:/ loop, *angbian/angbyan/ anngbyan* /æŋgbʲæn/ relation, *angbyanev* /æŋgbʲænev/ relations, *ingbyan/ ingbian* /ɪŋgbʲæŋ/ female. The phonotactics of Tiv

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allows only four consonants at the word-initial and four consonant**s** in the middle of words that have palatal sound /j/. Palatal /j/ does not come at the word-final position. Apart from /l/, /m/, /ŋ/, /n/, /ŋ/, /ɣ/, /v/, /ʃ/ and /r/ (linking r), no other Tiv consonant serves as a coda. Anywhere *y* appears at the end of Tiv words, it is considered to be a mere orthographic deviation. Scholars should not be deceived that *Tile* is written as *Tilley*. The doubling of *t* is totally at variance with the Tiv orthography and *y* in Tilley cannot be pronounced as /j/; it is a silent letter.

Conversely, /ʲ/ does not come after /ʧ/, /ʃ/, /ʤ/, /r/, /s/, /z/. In a nutshell, there are no combinations in Tiv such as: /ʧʲ/, /ʃʲ/, /ʤʲ/, /rʲ/, /sʲ/ and /zʲ/. Note that diagraph *ny* is a palatal nasal /ɲ/, not a consonant cluster. /ɲ/ is a distinctive phoneme in the Tiv phonology therefore scholars should not conclude that it is a consonant cluster in Tiv. Palatal nasal has these examples: *nyam* /ɲæm/ meat, nyumbe /ɲʊme/ play, nyima /ɲɪmæ/ bite and *kpyanyar* /kpʲæɲa:/ purse. Furthermore, the insertion of *y* after *w* /wʲ/ does not reflect its actual pronunciation as seen in these words: *iwyan* /ɾʲwæn/ deformity, *iwyasen* /ɾʲwæsen/ help, *iwyanger* /ɾʲwæŋge:/ light, *iwyambe* /ɪjwæɱbe/ vaccination, *iwen* /ɾʲwen/, *iwyenge* /ɾʲweŋge/ waist, *iwyever* /ɾʲweve:/ hook, *iwyen* /ɾʲwen/stone and *iwya* /ɾʲwæ/ dog, *iwyer* /ɾʲwe:/ *iwyange* /ɾʲwæŋge/ spear and Kwyande /kʲwænde/. It is clear that the above transcriptions involve metathesis, the transposition of /j/ to /w/ thus resulting in /ʲw/ cluster. This results in approximant clusterisation.

Functions of Palatalisation in the Tiv Phonology

Palatalisation is a prominent phonological feature in the Tiv phonology. It performs multitudinous functions in the Tiv grammar. Palatalisation is a sound change device; palatal epenthesis serves as a transitory device; yod dropping in the Tiv phonology shows singularity; palatal epenthesis shows plurality; reduplicative and onomatopoeic functions and alliterative function of palatalisation.

Palatalisation as a Sound Change Device

Words that were not written with palatal sound /j/ in the Old Tiv (OT) spellings now have *y* /j/. Books written by early Tiv scholars have minimal use of palatal sounds as reflected in the Tiv Holy Bible that was published in 1966. In pronouncing words that do not have *y*, you will surely hear /j/ sound in such words. In the Contemporary Tiv (CT) spellings, /j/ insertion has emerged. The emergence of /j/ reflects that Tiv phonology has undergone some changes over time. The OT spellings and CT spellings have proven that palatalisation is a sound or phonological change device.

Table 4: Palatal approximant/j/ as a phonological change in Tiv

OT Spellings without *y*	CT Spellings with *y*	Glosses
adiguve	*adigyuve*	harp
gba ikôr	*gba ikyôr*	to be fat
ibeenegh	*ibyeenegh*	cloud
ifam	*ifyam*	frog
ifan	*ifyan*	curse

ifer	ifyer	evil
iferkwagh	ifyerkwagh	evil something
iferor	ifyeror	evil person
igba	igbya	mother's home
igbe	igbye	shaft
igo	igyo	pig
igungu	igyungu	hill
ihom	ihyom	hatred
ihundu	ihyuundu	dust
ika	ikya	leaves
ikaghusu	ikyaghusu	charcoal
ikaior	ikyaior	youth
ikav	ikyav	load
ikenaika	ikyenaikya	reeds
ikev	ikyev	in someone's custody
ikpamkor	ikpyamkor	trumpet
ikô	ikyô	forests
ikon	ikyon	trees
ikondo	ikyondo	cloth
ikônogh	ikyônogh	chair
ikov	ikyov	generations
ikua	ikyua	near
ikua ikua	ikyua ikyua	very near
ikumior	ikyumior	crowd
ikundu	ikyundu	twenty
ikundugber	ikyundugber	thirty
ikurior	ikyurior	nation

ikuryan	*ikyuryan*	covenant
imborvungu	*imbyorvyungu*	ancestral pipe
ingôgh	*ingyôgh*	dropsy
ingôr	*ingyôr*	female relation
ingeegh	*ingyeegh*	number
ivo	*ivyo*	goats
mbahomov	*mbahyomov*	enemies
mbaibanave	*mbaibyanave*	poverty

Palatal Epenthesis as a Transitory Device

Palatal epenthesis is the insertion of palatal approximant in spoken and written discourses. Palatal approximant is a transitional sound in the Tiv phonology. It is a glide that is pronounced together with an adjacent vowel. A glide is a semi-vowel or vowel-like sound that precedes a true vowel. A glide serves as an auxiliary or pseudo-vowel and Tiv phonology deploys an on-glide, a consonant that precedes a vowel sound, in her phonology. The insertion of /j/ is heard while conversing but it is not seen in its orthography. Native speakers of Tiv are aware of this phenomenon and will pronounce such words with a palatal sound. The epenthesised /j/ is a rich source of consonantal insertion in the Tiv phonology. The insertion of /j/ in Tiv words is rule-governed; it must come between consonants and vowels. The following examples contain palatal insertion in Tiv.

Table 5: Palatal Epenthesis as a Transitory Device

Words	Transcriptions	Glosses	Words	Transcriptions	Glosses
ibua	/ɪbʲʊa/	cattle	*iniunkwase*	/ɪnʲu:nkwæse/	virgin
igba	/ɪgbʲæ/	mother's home	*ivande*	/ɪvʲænde/	miracle
igbe	/ɪgbʲe/	shaft	*ivarvase*	/ɪvʲa:vʲæse/	murmur
ihura	/ɪhʲʊræ/	eye of a needle	*iveren*	/ɪvʲeren/	blessing
imande	/ɪmʲænde/	leprosy	*ivese*	/ɪvʲese/	wedding
imanger	/ɪmʲænŋge:/	bragging	*ivever*	/ɪvʲevʲe:/	grumbling
imeen	/ɪmʲe:n/	temptation	*ivor*	ɪvʲo:/	seeds
imemegh	/ɪmʲemje:ɣ/	bell	*ivungu*	/ɪvʲu:ŋgʊ/	owl
imenger	/ɪmʲeŋge:/	lantern	*iwer*	/rʲwe:/	ululation

imôndo	/ɪmʲɔndo/	anthill	*iwua*	/rʲʊa/	gift
imura	/ɪmʲʊræ/	thirsty	*iwuese*	/rʲʊese/	praise

Yod Dropping in the Tiv Phonology shows Singularity

Yod dropping is the deletion or elision of the palatal approximant /j/ in words. This phenomenon occurs in plural nouns in which the palatal approximant that is found in singular nouns disappears. Some of these examples are given in Table 6:

Table 6:Yod Dropping shows Singularity in Tiv

Presence of /j/ in Singular Nouns		Absence of /j/ in Plural Nouns		Singular & Plural
Words	**Transcriptions**	**Words**	**Transcriptions**	**Glosses**
ibeenegh	/ɪbʲe:ne:ɣ/	*abeen*	/æbe:n/	cloud/ clouds
igyungu	/ɪgʲʊŋgʊ/	*agungu*	/ægʊŋgʊ/	hill/hills
ihyungwa	/ɪhʲʊŋgwæ/	*ahungwa*	/æhʊŋgwæ/	pit/pits
ikyausu	/ɪkʲæʊsʊ/	*akausu*	/ækæʊsʊ/	charcoal/charcoals
ikyondo	/ɪkʲɒndɒ/	*akondo*	/ækɒndɒ/	cloth/cloths
imande	/ɪmʲænde/	*amande*	/æmænde/	peg/pegs
imbyorvyungu	/ɪŋbʲo:vʲu:ŋgʊ/	*amboravungu*	/æŋbo:rævu:ŋgʊ/	ancestral pipe (s)
ipyungwa	/ɪpjʊŋgwæ/	*apungwa*	/æpʊŋgwæ/	African star apples
ityumba	/ɪtʲʊɱbæ/	*atumba*	/ætʊɱbæ/	breast/breasts
ityumbe	/ɪtʲʊɱbe/	*atumbe*	/ætʊɱbe/	booth/booths
ivyungu	/ɪvʲʊŋgʊ/	*avungu*	/ævʊŋgʊ/	owl/owls

Table 6 shows that palatal /j/ appears in singular nouns but absent in the plural nouns. It is this palatal deletion in the Tiv plural nouns is known as yod dropping. The dropping of /j/ in the plural nouns does not affect the syllabic structure of the plural words in Table 6. The yod dropping only reduces consonant clusters in the plural nouns to mono-consonants. There is also an instance where /j/ is dropped and /w/ replaces it. A Tiv word, *tyôkyaa* /tjɔkja:/, meaning reason has been changed to *tyôkwagh* /tjɔkwa:/. This morphological change has also affected its phonological realisation. The medial /j/ has been deleted, thus giving rise to /w/ approximant.

Palatal Epenthesis shows Plurality

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There are some words in Tiv that form their plurals by the insertions of *i* and *y* to the singular nouns. That is to say, palatal approximant is inserted to show plurality in the Tiv grammar. The absence of *y* in *bagu*, *gbem*, *kon* and *kor* shows singularity as indicated in Table 7.

Table 7:Palatal Epenthesis shows Plurality

Absence of /j/ in Singular Nouns		Presence of /j/ in Plural Nouns		Singular & Plural
Words	Transcriptions	Words	Transcriptions	Glosses
bagu	/bægʊ/	*ibyagu*	/ɪbʲægʊ/	monkey/monkeys
gbem	/gbem/	*igbyem*	/ɪgbʲem/	chin/chins
gungulkon	/gʊŋguːlkɒn/	*igyungulkon*	/ɪgʲʊŋguːlkɒn/	log of wood/logs of
hondo	/hɒndʊ/	*ihyondo*	/ɪhʲɒndʊ/	whistle/whistles
kon	/kɒn/	*ikyon*	/ɪkʲɒn/	tree/trees
kor	/koː/	*ikyor*	/ɪkʲoː/	rope/ropes
kov	/kɒv/	*ikyov*	/ɪkʲɒv/	generation/s
kpan	/kpæn/	*ikpyan*	/ɪkpʲæn/	slave/slaves
kpev	/kpev/	*ikpyev*	/ɪkpʲev/	he-goat/he-goats
ku	/kʊ/	*ikyu*	/ɪkʲʊ/	death/deaths
kuhwe	/kʊhwe/	*ikyuhwe*	/ɪkʲʊhwe/	bone/bones
kunya	/kʊɲæ/	*ikyunya*	/ɪkʲʊɲæ/	shame
kwa	/kwæ/	*ikya*	/ɪkʲæ/	leaf/leaves
kwe	/kwe/	*ikwye*	/ɪkʲwe/	crack/cracks
kwembe	/kweŋbe /	*ikwyembe*	/ɪkʲweŋbe /	sea-shell/sea-shells
lu	/lʊ/	*ilyu*	/ɪlʲʊ/	mortar/mortars
ngur	/ŋguː/	*ingyur*	/ɪŋgʲuː/	feather/feathers
pa	/pæ/	*ipya*	/ɪpʲæ/	road/roads
tar	/taː/	*ityar*	/ɪtʲaː/	country/countries
tembe	/teŋbe/	*ityembe*	/ɪtʲeŋbe/	courtyard/s
tembekasua	/teŋbekæsua/	*ityembekasua*	/ɪtʲeŋbekæsua/	market square/s
tom	/tɒm/	*ityom*	/ɪtʲɒm/	job/jobs

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| *vor* | /vɔ:/ | *ivyor* | /ɪvʲɔ:/ | seed/seeds |
| *wuna* | /wʊnæ/ | *iwyuna* | /ɪʲwʊnæ/ | barn/barns |

Reduplicative and Onomatopoeic Functions of Palatalisation in Tiv

The repetition of certain words echoes their meanings. This is another important function that palatalisation performs in the Tiv language and literature. The doubling or cloning of syllables or words that contain palatal sounds results in reduplication. The reiteration of /fʲ/ cluster in *fyugh fyugh*, *fyam fyam*, *fyagh fyagh* and *fyom fyom* reflects movement of objects, humans and non-humans. The reduplicative words have onomatopoeic functions of relating letters to their meanings. This type of onomatopoeia is called lexical onomatopoeia. The cluster of /gʲ/, /bʲ/, /kʲ/, /gbʲ/ echoes movement of tongues of fire as in *byugh byugh* and *gyang gyang*;thundering and vibration as*gbyaeghgbyaegh* and *kpyakan kpyakan;* beating *gbyang gbyang*; hard impact in *kyan kyan, pyan pyan;* fastnessin *kyaki kya* and stickiness *dyange dyange* and *tyange tyange*.

Alliterative Function of Palatalisation

Palatalisation also performs the function of alliteration in the Tiv language and literature. Alliteration is the repetition of consonant sounds. The repeated words create memorability, emphasis, musicality in the spoken and written discourses. The reiteration of /j/ results in phonological parallelism which is an instance of half-rhyme. The repetition of /j/ foregrounds the intensity and voicedness of the /j/ sound. These examples show the potential of palatalised alliteration.

1. (a) *Yina man Yav ve yisa orihyom ve Yachiga sha igbyudu ve gba gbidyen gbyang gbyang*.
    (b) Yina and Yav blocked their enemy Yachiga on the way and started beating him up.
2. (a) *Iyough yan i yange m yam la ngi iyol yôugh yôugh*.
    (b) The house that I bought has iron body.
3. (a) *Yosev yange yima angbyanev nav shi wa iyongo ken ibya i kwaghyan*.
    (b) Joseph once helped his brothers and put a cup in the food-bag.
4. (a) *Yangucan man Yavihi yôr iwyer iyol ve sha yôngor man yugh*.
    (b) Yangucan and Yavihi prepared mouse and porcupine themselves.
5. (a) *Yohane man Yesu yange ve tese ityesen i loho u dedoo ken Yerusalem, Yudia man Yeriko*.
    (b) John and Jesus preached the Good News in Jerusalem, Judea and Jericho.

The reiteration of /j/ in the above sentences adds euphony and rhythmical appeals. The repetition of a phrase: '*iyough ... iyol yôugh yôugh'* results in alliterative punning. The four words are near-homophones in Tiv. '*Iyough*' house, '*iyol*' body and *yôugh yôugh* made of iron. The reiterations of palatal /j/ lead to tongue-twisting which is auditorily entertaining.

4.CONCLUSION

The study looks at the formation of palatalisation and its functions in the study of Tiv language. The study affirms that there are fundamental rules guiding the formation of palatal consonant in the Tiv language. Palatalisation results in the multiplicity of consonant clusters, serving as transitory device, repairing strategy, enhancing phonological foregrounding, formation of plurals, performing reduplicative, onomatopoeic and alliterative functions in the Tiv language. The study foregrounds the role of palatal insertion and the diachronic study of

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sound change in the Tiv language. This study therefore contributes to the theory of generative phonology and phonotactic constraints of the Tiv phonology which is rule-governed.

5.RECOMMENDATIONS

This study is recommended to:

1. Scholars who wish to carry out a study on diachronic linguistics.
2. Lecturers and students who are teaching and/or learning phonological processes.
3. Researchers who wish to embark on the study of Tiv language.
4. Students in the departments of Nigerian and African Languages, Linguistics and Nigerian Languages and English Language.
5. Writers to publish textbooks and critical works on Tiv phonology.

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