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Languages of North East India: A Comparative and Contrastive Analysis on Some of the Phonological Features

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Abstract

North East India has always been regarded as a treasure hold for researchers from different fields. Linguistically and culturally, North East India is very diverse. Considering the fact that NE India consists only 7.9 per cent of the country's total geographical area but is home to more than 75% of languages belonging to the four language families, viz Indo-Aryan, Tibeto-Burman, Austro-Asiatic and Dravidian (small population of Tamil speakers in Moreh District of Manipur). To find four language families in such a small space is incredible and could be well regarded as a linguistic area. I am quite sure that there are certain features which these languages shared, by the process of borrowing, divergence or convergence. Nagamese (the Assamese-based pidgin of Nagaland, now creolizing) is the best example and outcome of contact among the different languages of North east.

This paper attempts to compare and highlight the contrast on some of the phonological features of these languages spoken in North East India. Each language has its own phonological system and each language family has its own unique phonological features. In the complex scenario of North east India, it is found that languages tend to preserve certain phonological features but compel to borrow on other features to meet their requirements.

Keywords: North East India, Phonological features, Palatal nasal, Initial consonant clusters

1. Introduction

North East India comprising of the states of Arunachal Pradesh, Assam, Meghalaya, Manipur, Tripura, Mizoram, Nagaland and Sikkim, was earlier referred to as Seven Sister States. Sikkim was later on included in the North Eastern Council vide North Eastern Council (Amendment) Act (Note 1), 2002. It shares borders with Bangladesh, Bhutan, China, Nepal and Myanmar. All the states of North East India touch at least one international boundary. Meghalaya and Tripura share it with Bangladesh; Nagaland and Manipur with Myanmar; Mizoram with Burma and Bangladesh; Assam with Bhutan and Bangladesh; Sikkim with Tibet towards north and east, Nepal towards west and Bhutan towards south-east; and Arunachal Pradesh with China towards north, Bhutan towards west and Burma towards east. The eight states cover an area of 2, 62, 179 sq. km. consisting only 7.9 per cent of the country's total geographical area. North East India of late has been a central attraction to the Indian and foreign linguists because of its rich and diverse linguistic data. That a small geographical area could be home to more than a hundred languages is remarkable

2. Phonological Features

Crystal (1997) mentions that since the end of the 18th century, the chief concern has been to explain the nature of linguistic diversity. It is impossible in principle to study all these languages of the region, in order to find out their relatedness, their differences, the features they share, and so on. As a matter of fact, in this paper, I shall be discussing only some of the phonological features in some languages that trigger similarity, differences and which are unique to particular languages.

2.1 Palatal Nasal

Very few languages of the region show the existence of a palatal nasal /ɲ/. Blankenship et al (1993) mention that both voiced and voiceless palatal nasals are present in Khonoma Angami, but to my knowledge, is not attested in the Bodo-Garo and Kuki-Chin languages. Imchen (2013) notes the existence of /ɲ/ in Sangtam both in the initial and medial position of the word. However, a look at her data shows that while /ɲ/ is found in the onset, it is not attested as the second member (cf Khasian (Note 2) below) as shown in the following examples: /ɲərə/ 'buffalo' and /məɲəɲə/ 'funny'. Few languages of Indo-Aryan (Shina, Sindhi, Siraiki etc) show evidences of the existence of the palatal nasal but not in the languages (Hindi, Bengali, Assamese & Nepali) spoken in the North East. Some scholars argue that /ɲ/ is present in Hindi and Nepali, others simply rule out the claim. Masica (1991) (Note 3) does not report the existence of this consonantal sound in his representative NIA consonantal systems but he mentions that it does occurs in the consonantal systems of Shina, Sindhi, Siraiki etc. He also mentions that somewhat similar arguments are made regarding the status of /ɲ/ vs. cluster /ny/ and /nj/. Nevertheless, palatalization is a commonly attested phonetic feature of the languages of the region. It is also worthwhile to mention that even though, if at all, it occurs in any of the languages, it does so only in the initial position. Khasian languages on the other hand, like most of the other AA languages, have palatal consonants /c/ and /ɲ/ at the end of the word. Khasian languages stand apart from most of the other languages of North East and other language families of India in having consonants of

these types. Examples;

[dac]	'to bite'	(Khasi)
[sa:c]	'to wash'	(Khasi)
[k^hleŋ]	'fat'	(Khasi)
[bseŋ]	'snake'	(Khasi)

It is to be noted that in the Khasian languages, /ŋ/, unlike other languages in NE India, occurs in the initial and final positions of the syllable as well as in consonant clusters as in these examples; Pnr. *ŋa* 'aunt/ maternal uncle's wife', *kŋa* 'to sacrifice' and *k^hlaŋ* 'fat', Kh. *ŋat* 'to wipe', *sŋu?* 'hair' *keŋ* 'to stop'. /**c**/ on the other hand, occurs only in the final position of all the Khasian languages with the exception of one instance where it occurs in initial position in Pasadwar, a variety of War, as in these examples; *ci:* 'rice' *cau* 'vgetable'

2.2 Voiced Apirated Stops

According to Masica (1993), almost all the New Indo-Aryan languages have the series of *voiced aspirated stops*. There is no evidence of these sounds in the proto Tibeto-Burman as presented by Scott DeLancy (2009) (Note 4) in his presentation of the Consonants of the Proto Tibeto-Burman. Khasi as a result of long contact with Bengali and Assamese borrowed lots of vocabularies from the Indo-Aryan languages. It is surprising to find these series of voiced aspirated stops in Khasi even though most of the languages of Mon-Khmer sub-family lack it. Khasi has /b^h/, /d^h/ and /$ɟ^h$/. Most of these sounds occur only with the loan-words, yet there are few instances where it occurs in native Pnar words like /$ɟ^h$i:ʔ/ 'wet' and /$ɟ^h$ia/ 'hot (taste of chilly)'. Yet their occurrences are very few and countable. It may concluded that these series of sounds were originally of Indo-Aryan and get their places in the Khasian consonantal system through the process of borrowing eg. /$ɟ^h$ur/ 'vegetable' (Khasian) < /$ɟ^h$ul/ (Indo-Aryan), /b^ha/ 'good' (Khasian) < /b^həl/ (Indo-Aryan). Apparently, these sounds do occur in other TB languages in borrowed words. [b^hara] '(bus) fare' in Kom (Note 5) and Meitei; [gad^{h}a] 'donkey', [d^hubi] 'washer man' in Karbi.

2.3 Voiceless Nasal and Liquid Sounds

One of the interesting features of the consonantal sounds of TB is the voiceless nasals and voiceless liquids found in Old Kuki (Bradley 1997), Central Chin and some of the Southern Naga sub-group.

- Old Kuki group as in Monsang language, Kom, Moyon, Hmar, Lamkang and other Old Kuki
- Central Chin as in Mizo, Mara, Khumi etc.
- Southern Naga as in Lotha, Angami, Sema, Chokri , Khezha

Matisoff (2003) notes that the voiceless nasals are found in some of the languages of *Himalayish, Qiangic, Laloo-Burmese, Nungish* and *Kamarupan*. He also mentions that Languages with voiceless nasals frequently have voiceless esonant (liquids and/or semivowels). Many scholars (VanBik: 2009, Thang: 2001) posit this feature of voiceless

nasal and liquids as one of the Proto-Chin features. All the Old-Kuki group, Mizo, Hakha, Mara, Khumi, and Kang still preserve the voiceless nasals and liquids, but the voiceless feature has been lost in Tedim (Thang 2001). Thang further illustrates that Tedim replaces the voiceless nasals and the voiceless lateral approximant /l̥/ with their voiced counter parts and in cognate sets of /r̥/ in the initial position replaces with the voiceless glottal fricative /h/. Tedim is in the process of deviation from the rest of the group. Instances where we find this is that whenever the voiced coronal trill /*r/ occurs in other languages, it is replaced by /g/ in Tedim. The existence of these voiceless sounds in Lotha, Angami, Sema, Chokri, Khezha, etc. of Southern Naga and other branches of Tibeto-Burman will further give a possibility that the voiceless nasals and voiceless liquids existed in the proto Tibeto-Burman and in due course, very few languages preserved it.

2.4 Tone

Another most noteworthy phonological feature of the Tibeto-Burman languages in general is their use of tones to convey phonemic distinction. Tone is not found in the other language families spoken in North East India, except for the Tibeto-Burman language family. All TB languages of North East have tone with the exception of Garo. Both contour tones and register tones are found in TB languages. Tone is posited as one of the Tibeto-Burman features. Garo, spoken in Meghalaya shared the region with the Khasian languages, Assam along with Assamese and Bangladesh along with Bangla speakers. All these languages neighboring Garo are non tonal languages. Though the absence of Tone in Garo languages cannot be fully justified, there are scholars of the view that the tone system of Garo disappeared at some point of time. Joseph and Burling (2006) propose the paradigm where the presence and absence of glottal stop is a cognate to the contrast between the high and the non-high tones that are found in the other three Bodic languages (Tiwa, Boro & Rabha). Despite the fact that Garo does not have tone, I still consider that tone is a genetic feature rather than an areal feature.

The tone system of Tibeto Burman groups range from a two tone (Tiwa) system to a four tone system (Mao). Most of the languages in the Bodic group have two tones (Joseph & Burling 2006), majority of the Kuki-Chin languages have three tones but some of the Naga languages like Mao has 4 tones. Though the tone system of proto TB cannot be ascertain as yet, Benedict (1972b) claims that a two-tone system may be reconstructed.

2.5 Glottal Stop

A glottal stop is a speech sound articulated by a momentary, complete closing of the glottis in the back of the throat. Not all languages have the glottal stop /ʔ/ in their phonological system. There is no sign of its occurrences in those Indo-Aryan languages (Hindi, Bengali) spoken in North East India. Many languages of the Kuki-Chin group, Garo (Bodic group), Sangtam (Naga), etc show the existence of this sound in the final position. So far I have not come across languages in the other branches of Tibeto-Burman language family which shows its occurrence elsewhere (other than the final position). VanBik (2009) reconstructed the final –ʔ as a proto Kuki-Chin sound. He claims that the PKC *****–ʔ descends from Proto TB *-s. Most of the languages in this region have the glottal stop but their use vary from one language to

another. For example, most of the TB languages have the glottal stop only in the final position of the syllable but not elsewhere , where as in Khasi, it occurs in initial consonant clusters and the final position of the syllable as in the examples /pʔut/ 'rotten', /puʔ/ 'to plough', /kʔɔʔ/ 'cough' (Pnar). Rabel (1961) mentions that phonetically, the glottal stop does occur in the initial position of the word. She further claims that all vowels are produced with glottalic segment in the initial of the syllable, in that all vowels are preceded by glottal stop for examples, [ʔɪm] 'to live', [ʔum] 'water'.

Garo, which belongs to the Bodo-Garo group of Tibeto-Burman shows the existence of the glottal stop in the final position and functions as the substitution for tone in contrast to the cognate words in the other three Bodo-Garo (Tiwa, boro and Rabha) languages. Joseph & Burling (2006) claims that the contrast between the presence and absence of a glottal stop in Garo is cognate to the contrast between high and non-high tones that is found in these other three languages.

2.6 The Absence of Retroflex Sounds in Assamese

Assamese belongs to the Eastern group of the new Indo-Aryan language family spoken by around 15.3 million. Majority of the Assamese speakers settle in the state of Assam of North East India. It is also spoken in the neighboring states of Meghalaya, Arunachal, West Bengal, etc. Genetically, it is closely related to Bengali and Oriya. Masica (1993) clubs these three languages under one group called 'Modern Indo-Aryan'. Assamese phonetically shares a large number of features with the other Indo-Aryan languages, especially Bengali and Oriya. However, when we look into the phonological system of Assamese as compared to the other languages, it is found out that Assamese lacks the retroflex series (Bhaskararao 2011, Goswami & Tamuli 2003, Neukom 1999) which are present in almost all the Indo-Aryan languages.

2.7 The Voiceless Velar Fricative /x/ in Assamese

The voiceless velar fricative /*x*/ is a distinct feature of Assamese. Assamese stands apart from the other languages of Northeast India and the New Indo-Aryan group in having this sound in its phonological system. Though the voiceless velar fricative /*x*/ appears to be a typical Indo-Aryan feature, it is not posited as a proto-Indo-Aryan feature (Kobayashi: 2004, Masica: 1993 (Note 6)) and does not occur in the other two most closely related languages (Oriya and Bengali). Goswami & Tamuli (2003:396-404), in their work claim that "the Sanskrit sibilants *ś ṣ* and *s* merged into velar voiceless fricative *x* which is a development unique, inexplicable and indigenous in nature, neither insititions nor effect of external forces". The name Assamese derived from the word Asamiya which is pronounced with this sound as *ôxômia* (meaning ôxôm 'assam' and –iya 'belonging to').

2.8 Initial Consonant Clusters

Indo-Aryan languages do not show any sign of initial consonant clusters. Both AA and TB languages do have initial consonant clusters but the possible clusters in these languages consist of up to two consonants, maximally. In most cases, the liquids (/-l/ & /-r/) are the only possible second member of the cluster in Tibeto-Burman languages. In Kuki-Chin, only the

voiceless stops usually are possible as the first member of the cluster and the liquids (/-l/ & /-r/) as the second members. The possible clusters are; *tl-* (Mara, Mizo, Lai, Kom, Monsang etc.), *t^{h}l-* (Mara, Mizo, Lai, Kom, Monsang etc.), *pr-* (Chothe), *tr-* (Lai, Chothe) and *kr-* (Chothe). However, VanBik (2009) reconstructs tl-, t^{h}l-, pr-, p^{h}r-, tr-, t^{h}r- and kr- as proto Kuki-Chin consonant clusters. Imchen (2013), on her work on the Sangtam language (Southern Naga branch of Tibeto-Burman) mentions that the possible consonant clusters are; tr-, t^{h}r-, dr- and d^{h}r. Unlike the other TB languages, Sangtam can have the voiced stop as the first member as in the examples;

/trɔta/	'to assist'	Imchen (2013)
/t^{h}raʔte/	'to write'	
/driŋbɔŋ/	'waist coat'	
/d^{h}rinuŋ/	'to collect'	

The Bodo-Garo group on the other hand has a number of consonant as the first member of the cluster; however, in most cases, it permits only liquid sounds as the second member. The possible initial consonant clusters (Note 7) in Boro, Tiwa, Garo and Rabha are;

Boro

pr	tr	kr		sr	Joseph & Burling (2006)
br	dr	gr	jr	sl	
pl		kl			
bl	dl	gl			

Tiwa

p^{h}l		k^{h}l	sl		Joseph & Burling (2006)
pl		kl			
p^{h}r	t^{h}r	k^{h}r			
pr	tr	kr			

Garo Joseph & Burling (2006)

pr	tr	kr	chr	(kn)		
br	dr	gr	jr	(gn)	(sn)	
mr	sr			(sp)	(st)	(sk)
mr				(spr)	(skr)	

Rabha Joseph & Burling (2006)

p^hr	t^hr	k^hr	
pr	tr	kr	cr
pl	tl	kl	
br	dr	gr	jr
dl			

Khasian languages on the other hand follow a typical feature of Mon-Khmer pattern which is to allow a great variety of two consonant combinations at the beginning of major syllables. Khasian group despite being surrounded by TB languages and Indo-Aryan languages still retain this feature. Henderson (1976a), Nagaraja (1985, 1990), Khyriem (2013) and other scholars have done extensive work on the consonant clusters of Khasi. Just to illustrate the possible consonant clusters of the Khasian languages, Pnar consonant clusters will be taken for discussion in this paper. The possible clusters in Pnar are;

(1) Aspirated Stop + Stop

Aspirated Stop + Nasal

Aspirated Stop + Liquid

(2) Stop + Liquid

Stop + Approximant

Stop + Aspirated Stop

Stop + Fricative (/s/)

Stop + Stop

Stop + Nasal

(3) Fricative (/s/) + Nasal

Fricative (/s/) + Liquid

Fricative (/s/) + Approximant

(4) Nasal + Liquid

(5) Liquid + Approximant

Liquid + Nasal

Illustration of the initial clusters with examples;

Aspirated Stop + Stop

/c^{h}b-/	/c^{h}ba/	‘to light’
/c^{h}p-/	/c^{h}piŋ/	‘handle of tool’
/c^{h}d-/	/c^{h}doʔ/	‘to walk hand in hand’
/c^{h}k-/	/c^{h}kaw/	‘spouse’
/c^{h}ʔ-/	/c^{h}ʔɔʔ/	‘uvula’

Aspirated Stop + Nasal

/p^{h}n-/	/p^{h}niaŋ/	‘oil’
/p^{h}ŋ-/	/p^{h}ŋiar/	‘scare’
/t^{h}m-/	/t^{h}ma/	‘war’
/t^{h}n-/	/t^{h}nɔm/	‘to murmur’
/t^{h}ŋ-/	/t^{h}ŋan/	‘hungry’
/c^{h}n-/	/c^{h}nɔŋ/	‘village’
/c^{h}ŋ-/	/c^{h}ŋiat/	‘to tie a scarf’
/k^{h}m-/	/k^{h}mɛt/	‘to look up’
/k^{h}ɲ-/	/k^{h}ɲiŋ/	‘to be disgusted’
/k^{h}n-/	/k^{h}ne/	‘rat’

Aspirated Stop + Liquid

/p^{h}l-/	/p^{h}laŋ/	‘grass’
/p^{h}r-/	/p^{h}ra/	‘eight’
/t^{h}l-/	/t^{h}lɔŋ/	‘mortar’
/t^{h}r-/	/t^{h}ri/	‘bamboo strip’
/t^{h}w-/	/t^{h}waj/	‘the deep part of a river’
/c^{h}r-/	/c^{h}rɔt/	‘house-pole’
/c^{h}l-/	/c^{h}laj/	‘overflow’
/c^{h}w-/	/c^{h}wawiaŋ/	‘flute’
/k^{h}l-/	/k^{h}lo/	‘forest’
/k^{h}r-/	/k^{h}rɔŋ/	‘to beg’

/k^{h}w-/	/k^{h}we/	‘to fish’

Stop + Stop

/pt-/	/pteŋ/	‘to continue’
/pd-/	/pdaŋ/	‘be cracked’
/pʔ-/	/pʔut/	‘rotten’
/tp-/	/tpaj/	‘fire place’
/tb-/	/tbian/	‘short’
/td-/	/tdɔŋ/	‘tail’
/tk-/	/tkɔʔ/	‘lame’
/tʔ-/	/la.tʔap/	‘crow’
/kp-/	/kpɛr/	‘garden’
/kb-/	/kba/	‘unhusked rice’
/kt-/	/ktuŋ/	‘dry fish’
/kd-/	/kdiap/	‘to flirt’
/kj-/	/kɟut/	‘to be sick’
/kʔ-/	/kʔɔʔ/	‘to cough’

Stop + Aspirated

/pt^{h}-/	/pt^{h}oʔ/	‘brown’
/tk^{h}-/	/tk^{h}an/	‘tired’
/kc^{h}-/	/kc^{h}u/	‘pot’
/kt^{h}-/	/kt^{h}aŋ/	‘bitter’

Stop + Fricative (/s/)

/ks-/	/ksaw/	‘dog’
/ps-/	/psaw/	‘to burry under ashes’

Stop + Nasal

/bn-/	/bneŋ/	‘heaven’
/pn-/	/pnat/	‘split’
/tm-/	/tmaŋ/	‘beard’
/tn-/	/tnat/	‘branch’

/tŋ-/	/tŋit/	‘dirt’
/dŋ-/	/dŋɛm/	‘bear’
/ɟn-/	/ɟnaŋ/	‘to feel pain’
/ɟŋ-/	/ɟŋɛm/	‘bruised’
/km-/	/kmɛn/	‘happy’
/kn-/	/knɔr/	‘small wooden stool’
/kɲ-/	/kɲa/	‘to sacrifice’

Stop + Liquid

/pl-/	/plak/	‘all’
/bl-/	/blaŋ/	‘goat’
/br-/	/bru/	‘man’
/tl-/	/tlaŋ/	‘winter’
/pr-/	/praj/	‘to vomit’
/tr-/	/traʔ/	‘greedy’
/ɟl-/	/ɟlo/	‘to howl’
/ɟr-/	/ɟri/	‘banyan tree’
/kl-/	/klaʔ/	‘to take out’
/kr-/	/krɔʔ/	‘joint

Stop + Approximant

/dw-/	/dwar/	‘verandah’
/ɟw-/	/ɟwat/	‘resistant, tough’
/kw-/	/kwaj/	‘areca nut’

Fricative (/s/) + Nasal

/sm-/	/smaj/	‘to swear’
/sn-/	/snam/	‘blood’
/sɲ-/	/sɲoʔ/	‘hair’
/sŋ-/	/sŋat/	‘dried up’

Fricative (/s/) + Liquid

/sl-/	/sla/	‘leaf’

/sr-/	/srim/	'resemble'

Fricative (/s/) + Approximant

/sw-/	/swe/	'lazy'

Nasal + Liquid

/ml-/	/mlɛn/	'be used to'

Liquid + Approximant

/lw-/	/lwe/	'wasp'
/rw-/	/rwiaŋ/	'ring made of bamboo used as a stand for pot'

Liquid + Nasal

/rn-/	/rnɔt/	'to place one on top of another'
/rŋ-/	/rŋaw/	'charcoal'

There are sets of words which are composed by sequence of segment (*Fricative (/s/) + Stop*) that often occur in Pnar as in the examples below. Combinations like these show that they are violating both Sonority Sequencing Principle (SSP) and Sonority scale. In Pnar the violation occur in the syllable-initial consonant cluster of /sp/, /sb/, /st/, /sd/, /sk/, and /sʔ/, where the stops (/p, b, t, d, k, ʔ/), which are the least sonorous, are closer to the syllable peak. The fricative /s/, which is more sonorous than the stops, is on the outer edge of the syllable. This SSP violation can be further seen in the case of English as in these initial clusters; /sp/, /st/, and /sk/. In English, though the least sonorous are possible only voiceless stops, but in Pnar both voiced and voiceless stops are possible. This can be illustrated by the examples below;

Fricative (/s/) + Stop

/sb-/	/sbɔʔ/	'manure'
/sp-/	/spaʔ/	'wealth'
/st-/	/staŋ/	'thin'
/sd-/	/sdaŋ/	'to begin'
/sk-/	/skam/	'husk'
/sʔ-/	/sʔaŋ/	'to dry at/over fire'

3. Conclusion

Considering the fact that NE India consisting of only 7.9 per cent of the country's total geographical area and home to more than 75% of languages belonging to the four language families, viz Indo-Aryan, Tibeto-Burman, Austro-Asiatic and Dravidian (small number of Tamil speakers in Moreh district of Manipur). To home four language families in such a

small space is incredible and could be well regarded as a linguistic area. These are only few features which have been discussed in this paper: features which are unique in a particular language family and features which are shared by all the language families. I am quit sure that there are certain features which these languages shared, by the process of borrowing, divergence or convergence. Nagamese (the Assamese-based pidgin of Nagaland, now creolizing) is the best example and outcome of contact among the different languages of North east. After these languages belong to the four language families settling down together for more than several thousand years there are lots of features triggering or exchanging from one language family to the other. This could be an opening gate for linguists who are interested in this field.

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References

Bareh, C. (2007). *A descriptive analysis of the Jowai and Rymbai dialects of Khasi*. Unpublished doctoral dissertation. NEHU, Shillong.

Benedict, P. K. (1972a). *Sino-Tibetan: A conspectus*. Cambridge: Cambridge University Press.

Benedict, P. K. (1972b). The Sino-Tibetan tonal system". In Thomas, & Bernot (Eds.), *Langues et Techniques, Nature et Societe*, Volume 1. Paris: Editions Klincksieck.

Bhaskararao, Peri. (2011). Salient phonetic features of Indian languages. *Sādhanā, 36*(5), 587-599. Indian Academic of Sciences. Retrieved from http://www.ldcil.org/download/phonetic-features-indian-languages.pdf

Blankenship, B., Ladefoged, P., Bhaskararao, P., & Nichumeno, C. (1992). Phonetic structures of Khonoma Angami. *Linguistics of the Tibeto-Burman Area, 16*(2), 69-88.

Bradley, D. (1997). Tibeto-Burman languages and classification. In D. Bradley (Ed.), *Papers in Southeast Asian Linguistics No. 14: Tibeto-Burman Languages of the Himalayas*, 14, 1-72. Pacific Linguistics, the Australian National University.

Census of India: http://censusindia.gov.in/Census_Data_2001/Census_data_finder/A_Series/Total_population.htm

Clements, G. N. (1990). The role of the sonority cycle in core syllabification. In *Papers in Laboratory Phonology I: Between the Grammar and Physics of Speech*, e. J Kingston and M. Beckman, Cambridge University Press.

Crystal, David. (1997). *The Cambridge Encyclopedia of Language*. New York: Cambridge University Press.

Delancey, Scott. (2009). Sino-Tibetan languages. In Bernard Comrie (Ed.), *The World's Major Languages* (pp. 797-810) New York: Routled.

Dost, Ascander. (2004). Sonority Distance Constraints in Syllable Evaluation. Qualifying paper: University of California Santa Cruz. Retrieved from http://people.ucsc.edu/~arsenal/

Emeneau, Murray B. (1956). India as a linguistic area. *Language, 32*, 3-16. http://dx.doi:10.2307/410649. JSTOR 410649

Goswami, G. C., & Tamuli, J. (2003). Asamiya. In G. Cardona, & D. Jain (Eds.), *The Indo-Aryan Languages* (pp. 391-443). London: Routledge

Henderson, E. J. A. (1976a). *Austro-Asiatic Study (Khasi Initial Clusters), Part I*. University of London: BSOAS.

Imchen, Imlienla. (2013). *The phonology and morphology of Sangtam*. Unpublished doctoral dissertation. NEHU, Shillong.

Joseph, U.V., & Burling, R. (2006). *The comparative phonology of the Boro Garo languages.* Mysore: Central Institute of Indian Languages

Khyriem, B. (2013). *Comparative study of some regional dialects of Khasi language: A lexical and phonological study*. Unpublished doctoral dissertation. NEHU, Shillong.

Kobayashi, M. (2004). *Historical phonology of old Indo-Aryan consonants*. Research Institute for languages and culture of Asia and Africa, Tokyo University of foreign Studies. Retrieved from http://www.gengo.l.u-tokyo.ac.jp/~masatok/hpiac_2004.pdf

Mainwaring, G. B. (1876). *A grammar of the Rong (Lepcha) Language*. New Delhi: Manjusri Publishing House.

Masica, Colin P. (1993). *The Indo-Aryan Languages.* Cambridge: Cambridge University Press.

Matisoff, James A. (2003). *Handbook of proto-Tibeto-Burman: System and philosophy of Sino- Tibetan reconstruction*. University of California Publication in Linguistics, Vol. 135. Berkeley and Los Angeles: University of California Press ("HPTB"). pp. 37-38.

Ministry of Home Affairs, Govt. of India: http://mha.nic.in/uniquepage.asp?ID_PK=470

Nagaraja, K.S. (1985). *Khasi: A descriptive analysis.* Pune: Deccan College Press.

Nagaraja, K.S. (1990). *Khasi phonetic reader*. Mysore: Central Institute of Indian Languages

Neukom, L. (1999). Phonological typology of northeast India. *Linguistics of the Tibeto-Burman Area*, *22*(2), 121-147. Retrieved from http://sealang.net/sala/archives/pdf8/neukom1999phonological.pdf

Rabel, L. (1961). *Khasi, a language of Assam.* Baton Rouge Louisianna State University

studies.

Shapiro, M. C., & Schiffman, H. F. (1981). *Language and Society in South Asia*. Delhi: Motilal Banarsidas.

Singh, H. B. (2008). *Chothe grammar*. New Delhi: Akansha Publishing House

Southworth, F. C., & Apte M. L. (1974). Contact and Convergence in South Asia Languages'. *IJDL, III,*

Thang, K. L. (2001). A phonological reconstruction of proto Chin. Unpublished master dissertation. Payap University, Chiang Mai, Thailand.

VanBik, K. (2009). *Proto-Kuki-Chin: A reconstructed ancestor of the Kuki-Chin languages*. STEDT Monograph Series, Vol. 8. Berkeley: University of California Press. Retrieved from http://stedt.berkeley.edu/pubs_and_prods/STEDT_Monograph8_Proto-Kuki-Chin.pdf

War, J. (2009). Uncharted territory: Challenges of the unknown. In S.K. Singh (Ed.), *Rethinking Multilingualism: Issues and Problems*. Guwahati: Eastern Book House.

Zvelebil, K. V. (1990). *Dravidian linguistics: An introduction*. Pondicherry: Pondicherry Institute of Linguistics and Culture.

Notes

Note 1. The North Eastern States i.e. (i) Assam (ii) Arunachal Pradesh (iii) Manipur (iv) Tripura (v) Mizoram (vi) Meghalaya and (vii) Nagaland are included in the Zonal Councils and their special problems are looked after by the North Eastern Council, set up under the North Eastern Council Act, 1972. The State of Sikkim has also been included in the North Eastern Council vide North Eastern Council (Amendment) Act, 2002 notified on 23rd December, 2002. Consequently, action for exclusion of Sikkim as member of Eastern Zonal Council has been initiated by Ministry of Home Affairs (Source:Ministry of Home Affairs, Govt. of India website).

Note 2. In my analysis (in progress), I further classify the Khasian group into Khasi (Kh.), War (Wr.), Pnar (Pnr.) and Lyngngam (Lyng.)

Note 3. Cf. Masica, Colin P. (1991). The Indo-Aryan Languages. Cambridge: Cambridge University Press. Pp 106-7.

Note 4. Cf. Delancey, Scott. (2009). Sino-Tibetan Languages. In Bernard Comrie (ed) World's Major Languages. New York: Routled. table 41.1 The Consonants of Proto-Tibeto-Burman. p 697.

Note 5. Personal communication with Tarun Kom.

Note 6. Masica mentions that there were no voiced fricatives in the OIA except possibly *v*, which traditionally classed as a semivowel.

Note 7. See Joseph & Burling (2006) for more details.