

Cardinal Numerals in Manipuri and Standard Tangkhul: A Comparative Analysis

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Abstract

It is interesting to note that numerals in any language typically show some processes of word formation in a curious way, while they might also provoke us to look into the etymological aspects or diachronic investigations, apart from their synchronic enquiries, about certain parts or elements of the numerals. In the cardinals of both Manipuri and Tangkhul, the process of compounding is in operation as in many languages. But there is marked difference between the two at certain points – because of the fact that where one uses compound the other uses a connective, and where one uses 10 as the multiple, the other uses a score i.e. 20, wherever the process of multiplicative compound operates. In this way the numerals in the two languages show similarities and dissimilarities between them. A comparative study of Manipuri and Tangkhul numerals would throw light on the linguistic affinity between these two languages, thereby contributing to further investigation of linguistic, cultural and historical importance. In the present paper the comparative study confines to cardinals only. A relatively fresh attempt is being made to look into the importance of prosodic feature of numerals which is directly associated with the spontaneity of rhythm in counting in isolation within the parameter of which the cardinals of Manipuri and Tangkhul is being studied in addition to other parameters such as phonological, morphological and other grammatical features that characterize the two numeral systems.

Key words: Manipuri, Tangkhul Naga, cardinal numerals, comparative study, rhythm

Abbreviation: Adj=Adjective; DET=Determiner; GEN=Genitive; N=Noun; NOM=Nominative; TB=Tibeto-Burman; VBR=Verbal Bound Root

1.1 Introduction

Manipuri, the lingua franca of the state of Manipur in the Indian sub-continent belongs to the Kuki-Chin group of Tibeto-Burman sub-family of the Sino-Tibetan family. Standard Tangkhul, popularly known as Tangkhul, is also one of the members of this group i.e., Tibeto-Burman (T.B.). The term ‘Standard Tangkhul’ is being used to distinguish itself

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from the other Tangkhul dialects, numbering about two hundred, which are known by their village-tags, namely Hundung Tangkhul, Thawai Tangkhul, Sangsak Tangkhul etc. Both Manipuri (i.e., Meiteilon or Meitei, as has been nomenclatured by different linguists) and Tangkhul show striking similarities and significant dissimilarities in their lexicon, phonology, morphology, syntax and semantics.

Standard Tangkhul is largely spoken in the Ukhrul town, the home of the district headquarters of Ukhrul district, at a distance of 84 km from Imphal, the capital city of the state, and in small pockets in and around the capital city too, where a considerable number of Tangkhuls have settled for the last many decades. In short, Standard Tangkhul is a medium of communication, mutually adopted by the Tangkhuls, and it is locally also known as common Tangkhul. It was practically initiated by Rev. William Pettigrew, an English missionary in the early part of the last century, whose pioneering work entitled ‘Tangkhul Naga Grammar and Dictionary’ appeared in print in 1918.

1.2 Cardinals in Manipuri and Tangkhul

Following is the list of the cardinals in Manipuri and Tangkhul with their English equivalents -

Manipuri	Tangkhul	English
ə-mə	a-khə	one
ə-ni	khə-ni	two
ə- hum	kə-thum	three
mə-ri	mə-ti	four
mə-ŋa	phə-ŋa	five
tə-ruk	thə-ruk	six
tə-ret	ʃini	seven
ni-pan	ci-ʃət	eight
ma-pən	ci-ko	nine
tə-ra	thə-ra	ten

tə-ra-ma-thoi	thə-ra-tə-akh-ə	eleven
tə-ra-ni-thoi	thə-ra-tə-khə-ni	twelve
tə-ra-hum-doi	thə-ra-tə-kə-thum	thirteen
tə-ra-mə-ri	thə-ra-tə-mə-ti	fourteen
tə-ra-mə-ŋa	thə-ra-tə-phə-ŋa	fifteen
tə-ra-tə-ruk	thə-ra-tə-thə-ruk	sixteen
tə-ra-tə-ret	thə-ra-tə-ʃini	seventeen
tə-ra-ni-pan	thə-ra-tə-ci-ʃət	eighteen
tə-ra-ma-pən	thə-ra-tə-ciko	nineteen
kun	mə-gu	twenty
kun-thra	thum-ra	thirty
ni-phu	həŋmə-ti	forty
yaŋ-khəi	həŋ-phə-ŋa	fifty
hum-phu	həŋ-thə-ruk	sixty
hum-phu-təra	həŋ-ʃi-ni	seventy
məri-phu	həŋ-ciʃət	eighty
məri-phu-təra	həŋ-ci-ko	ninety
ca-mə	ʃa-khə	hundred
ca-ni	ʃa-khə-ni	two hundred
ca-hum	ʃa-kə-thum	three hundred
ca-mə-ri	ʃa-mə-ti	four hundred
ca-mə-ŋa	ʃa-phə-ŋa	five hundred
ca-tə-ruk	ʃa-thə-ruk	six hundred
ca-tə-ret	ʃa-ʃi-ni	seven hundred
ca-ni-pan	ʃa-ci-ʃit	eight hundred

ca-ma-pən	ʃa-ci-ko	nine hundred
li-siŋ-əmə	thiŋ-khə	one thousand

It may be noted down here that /huphutəra/ ‘seventy’ and / məri-phu-təra/ ‘ ninety’ are colloquially shortened into /huphudra/ and /məri-phu-dra~mərphudra~məudra~məidra/ respectively.

1.2.1 Numerals of Decimal Numbers and Additives

In Manipuri and Tangkhul, as in many other TB languages, the numerals, interposed by every two consecutive decimal numbers, starting from ten onwards i.e., eleven to nineteen, twenty-one to twenty-nine and so on, are morphologically structured with the help of either an additive/ connective or otherwise.

1.2.2 Thousand, the Numeral for Highest Decimal Number

It is assumed that the Manipuris did not use a higher decimal number than the thousand in the olden times. Later on they started using ‘lakh’ ‘/koti/’ ‘kəroŋ/’ etc by borrowing from Sanskrit, Bengali and English when they began to have historical connections with the other civilizations from across its territory especially from the west. The same is true with the Tangkhuls. Manipuri and English were the windows to the outside world for the Tangkhuls as they brought themselves into connection with the modern world. Here the notable point is that in the case of Tangkhuls a word ‘thiŋnəm’ is found in their vocabulary, which S. Arokianathan enlists as Tangkhul equivalence of ‘million’ [Arokianathan, 1987, P 59]. But this writer offers to agree with his respondents that ‘thiŋnəm’ does not mean a particular numeral but something uncountably huge or numerous, as / thiŋnəm/ or /thiŋnəm-khə/ may possibly mean ‘over thousand’ or ‘something over thousand’. The ordinary expressions over ninety-nine thousand among the speakers of Manipuris is not known to have been used in the olden times. Expressions like /lisiŋcamə/ ‘hundreds of thousand’ must have been used however, just as the Tangkhul did [Pettigrew, 1979, P 17]. In Tangkhul /thiŋʃa/ ‘hundreds of thousand’ is also enlisted by Arokianathan in his book ‘Tangkhul Naga Grammar’. This means to say that the numeral ‘thousand’ can combine with the numeral one hundred and above in multiplicative compounds to denote the values of lac, crore, million etc.

1.2.3 Manipuri and Tangkhul Numerals after each Decimal Number

A few examples are given below to show the formal structure of the Manipuri and Tangkhul numerals after each decimal number –

Manipuri	Tangkhul	
tə-ra-ma-thoi	thə-ra-tə-a-khə	‘eleven’
tə-ra-ni-thoi	thə-ra-tə-khə-ni	‘twelve’
tə-ra- hum-doi	thə-ra-tə-kə-thum	‘thirteen’
tə-ra- mə-ri	thə-ra-tə-mə-ti	‘fourteen’
tə-ra- mə-ŋa	thə-ra -tə-phə-ŋa	‘fifteen’
tə-ra- tə-ruk	thə -rə-tə-thə-ruk	‘sixteen’

By looking at the above list the rest of the numerals upto nineteen can be foretold. For the list of Manipuri the numerals / təret ‘seven’, nɪpan ‘eight’, mapən ‘nine’/ are to be added to /təra-/ to get the cardinals 17,18,19 and in the Tangkhul list the numerals / jini ‘seven’, cijət ‘eight’, ciko- ‘nine’ / are to follow the preceding elements / thəra-tə-/ so as to get the cardinals 17,18,19. Likewise with each of the decimal numbers viz. 20,30,40 ...90 in both the languages the same rule should be applied to get the cardinals 21,22,23.....97,98,99.

1.2.4 Numerals for Higher Decimal Numbers

The formation of higher decimal numbers in Manipuri and Tangkhul i.e. one hundred and above is through a process of multiplication as seen in the above list at 1.2.

1.3 Similarities and Dissimilarities

The similarities and dissimilarities between the cardinals of Manipuri and Tangkhul can be brought out through a comparative analysis. The comparison may be done at four levels : (i) phonological shapes of the syllables in the corresponding numerals, (ii) functionally identical affixes between the corresponding numerals, (iii) grammatical functions of the numerals in the two languages, (iv) re-occurring and non-reoccurring bases in the numeral cardinals (v) connective versus affixation, (vi) multiplicative compound for higher decimal numeral, (vii) the use of connectivity between the higher decimal numerals, and (viii) prosodic features of the numerals.

1.3.1. Phonological Shapes of the Syllables

A good number of similarities in terms of identical phonemes can be seen in the cardinal numerals of Manipuri and Tangkhul. The similarities and dissimilarities can be shown in the following table -

Cardinals		First syllable		Second syllable	
		Vowel	Consonant	Vowel	Consonant
Manipuri: ə-mə	} 'one'	ə	-	ə	m
Tangkhul: a-khə		a	-	ə	kh
Manipuri: ə-ni	} 'two'	ə	-	i	n
Tangkhul: khə-ni		ə	kh	i	n
Manipuri: ə-hum	} 'three'	ə	-	u	h,m
Tangkhul: kə-thum		ə	k	u	th,m
Manipuri: mə-ri	} 'four'	ə	m	i	r
Tangkhul: mə-ti		ə	m	i	t
Manipuri: mə-ŋa	} 'five'	ə	m	a	ŋ
Tangkhul: phə-ŋa		ə	ph	a	ŋ
Manipuri: tə-ruk	} 'six'	ə	t	u	r,k
Tangkhul: thə-ruk		ə	th	u	r,k
Manipuri: tə-ret	} 'seven'	ə	t	e	r,t
Tangkhul: ʃi-ni		i	ʃ	i	n
Manipuri: ni-pən	} 'eight'	i	n	a	p,n
Tangkhul: ci-ʃət		i	c	ə	ʃ,t
Manipuri: ma-pən	} 'nine'	a	m	ə	p,n
Tangkhul: ci-ko		i	c	o	k
Manipuri: tə-ra	} 'ten'	ə	t	a	r
Tangkhul: thə-ra		ə	th	a	r
Tangkhul: mə-gu	} 'twenty'	u	k,n	-	-
Manipuri: kun		ə	m	u	g

Manipuri: kun-thra	} 'thirty'	u	k,n	a	th,r
Tangkhum: thum-ra		u	th,m	a	r
Manipuri: ca-mə	} 'one hundred'	a	c	ə	m
Tangkhum:ʃa-khə		a	ʃ	ə	kh
Manipuri: lisiŋ(əmə)	} 'one thousand'	i	l	i	s,ŋ
Tangkhum: thiŋ-khə		i	th,ŋ	ə	kh

One note is to be made here that in the above table the cardinal numerals from forty to ninety are deliberately being excluded since they don't follow a regular pattern both in Tangkhum and Manipuri. Therefore, they deserve to be treated separately when we deal with the question of similarity and dissimilarity between the two numerals. For example, /ni-phu/ 'forty', /hum-phu/ 'sixty' and /mə-ri-phu/ 'eighty' in Manipuri follow a vigesimal system, wherein /phu/ stands for a score, but its lexical and conceptual fields are difficult to grasp, and for the numeral /yaŋ-khəi/ 'fifty' the meaning of the first element [yaŋ-] is not known like [-phu] whose semanticity is not clearly known to the present-day speakers of Manipuri. Likewise in the Tangkhum numerals |həŋ-məti| 'forty', /həŋ-phəŋa/ 'fifty', /həŋ-thəruk/ 'sixty', /həŋ-ʃini/ 'seventy' |həŋ-ciʃət| 'eighty' /həŋ-ciko/ 'ninety' the first element /həŋ-/ is an obscure word. So, these particular numerals 40-90 in Tangkhum and Manipuri do not show any property or trait, either morpho-syntactic or semantic, to account for a comparison between the two. The pairs /ni-phu~həŋ-məti/ 'forty', /yaŋ-khəi~həŋ-phəŋa/ 'fifty', /hum-phu~həŋ-thəruk/ 'sixty', /hum-dra~həŋ-ʃini/ 'seventy', /mə-ri-phu~həŋ-ciʃət/ 'eighty' and /mə-ri-phu-təra~həŋ-ciko/ 'ninety' simply remain incomparable in terms of similarity between their phonemic representations. Another important note is that the numeral for thousand in Manipuri has one more syllable than that of in Tangkhum. Both /lisiŋ/ and /lisiŋ-əmə/ are used for 'one thousand' in Manipuri.

1.3.1.1 Partially Homophonous

By examining the above table, it is seen that the numerals /əmə 'one', ə-ni 'two', ə-hum 'three', mə-ri 'four', məŋa 'five', tə-ruk 'six', tə-ra 'ten' and cə-mə 'hundred'/in Manipuri and their counterparts in Tangkhum, viz., /a-khə, khə-ni, kə-thum, mə-ti, phə-ŋa, thə-ruk, thə-ra, ʃa-khə/ are found partially homophonous. It is so because, there is at least one

identical phoneme or syllable always present in either of the corresponding syllables, the initial or the final.

1.3.1.2 Disyllables

The quality of being homophonous, partially or otherwise, is enhanced by the equal number of syllables between the corresponding numerals of the two languages. Interestingly the numerals from one to ten, both in Manipuri and Tangkhul, are all disyllabic. The decimal numerals 20, 30 and 100 are also disyllabic in both languages. As a matter of fact the degree of similarity is largely maintained by the equal number of syllables in the corresponding numerals.

1.3.2 Functionally Identical Affixes

The numerals from 1 to 10 in Manipuri and Tangkhul may be compartmentalized into four groups on the basis of the functionality of their affixes: (a) 1,2,3 (b) 4,5 (c) 6,7,10 (d) 8,9.

(a) In the first group i.e., 1 to 3, it is seen that the Manipuri numerals /əmə/, /əni/, /əhum/ have the prefix /-ə/ which normally functions as a noun formative particle as well as an adjective formative e.g. /ə-cəu-bə/ 'large', /ə-cəu-bə/'the large one'. In Tangkhul the numerals 2 and 3 have the common prefix /kə-/ which is realized in its allomorphs [kə-] and [khə-] as in /kh-əni/ 'two' and /kə-thum/ 'three'. Just like the Manipuri prefix /ə-/ the Tangkhul prefix /kə~khə/ is also a noun formative as well as adjective formative particle e.g. /kə-həkə/ 'big', /kə-həkə/ 'the big one' or /khə-ηəzan/ 'weak', /khə-ηəzan/ 'the weak one'. In this group the prefix /a-/ of the Tangkhul numeral /a-khə/ 'one' has no correspondence in the Manipuri counterpart to match with it at the level of morphological function. The prefix /a-/ is not an established prefix assigned with some specified role to play analogous to that of Manipuri prefix /ə-/. Therefore, while the Manipuri prefix /ə-/ is functionally identifiable with Tangkhul/kə~khə/, the prefix /a/ of /a-khə/ remains in isolation with no functionally analogous counterpart in Manipuri.

(b) In the second group, the Manipuri numerals /mə-ri/ 'four' and /mə-ηa/ 'five' have the same prefix /mə-/, but the Tangkhul numerals /məti/ 'four' and /phəηa/ 'five' do not have the same prefix. If /mə/ as a prefix has a role in the formation of noun phrase with the underlying structure mə+VBR e.g. /mə-cət/ meaning 'mode or manner of walking' etc., the

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Tangkhum prefix /mə-/ and /phə-/ of /məti/ and /phəŋa/ respectively do not have such a role in Tangkhum morphology. So in the case of 4 and 5, the numerals in the two languages do not share any similarity in the functionality of their prefixes as in the case of 1,2,3.

(c) In the third group the Manipuri numerals /tə-ruk/ ‘six’, /tə-ret/ ‘seven’ and /tə-ra/ ‘ten’ have the same prefix /tə-/, which is not a commonly known prefix in Manipuri morphology. Their Tangkhum counterparts namely /thə-ruk/, /ʃi-ni/ and /thə-ra/ too have morphologically inactive prefixes /thə-/ and /ʃi/ which have no morphologically definable functions elsewhere. Though it is difficult to say if there is any syntactic or semantic linkage between /ci-ʃət/ ‘eight’ and its following cardinal /ciko/ ‘nine’ of Tangkhum, their Manipuri counterparts /ni-pan/ ‘eight’ and /ma-pən/ ‘nine’ share a commonality in that the suffixes viz./-pan/ and /-pən/ connote the same thing. Here William Pettigrew’s assumption holds good that /pan/ or /pən/ has a role of subtraction [Pettigrew, 1988, p. 19]. It can be maintained that /pan/ is a modified form of /pən/ a verbal root of /pən-bə/ which literally means ‘to be stuck’ or ‘to be unable to move on’. Thus /ni-pan/ means ‘two cut off (from ten)’, /ma-pən/ means ‘one cut off (from ten)’ whereas /ni/ stands for /((ə)ni/ ‘two’ and /ma-/ for/((ə) mə/ ‘one’ as we already know. This view is also supported by Chelliah (1997) and almost all the native speaker linguists of Manipur. This logical pattern is not found in its Tangkhum counterpart /ciʃət/ ‘eight’ and /ciko/ ‘nine’. However the two numerals in Tangkhum seem to have their own logic behind the homophonous syllables /ci/ which is yet to be deciphered. But the difference between the Tangkhum and Manipuri numerals 8 and 9 is that none of them have a known prefix.

1.3.3 Grammatical Functions of the Numerals

Similarities between the numerals of Manipuri and Tangkhum are also found in their grammatical functions. Grammatically speaking, numerals in Manipuri and Tangkhum are adjectives used attributively to qualify nouns that precede them, as in -

<u>Manipuri</u>	<u>Tangkhum</u>	<u>Gloss</u>
lairikəmə	lairɪk akhə	(one) a book
book one	book one	
u əni	thiŋrəŋkhəni	two trees

tree two tree two

Like any other TB languages, the nouns in Manipuri and Tangkhul do not have plural markers when they are qualified by a cardinal plural number e.g.,

<u>Manipuri</u>	<u>Tangkhul</u>	<u>Gloss</u>
u əni	thiŋroŋkhəni	two trees
*u-siŋəni	*thiŋroŋ-biŋkhəni	two trees

whereas /siŋ/ and /biŋ/ are plural morphemes in Manipuri and Tangkhul respectively.

Both Tangkhul and Manipuri share a common word-ordering in the formation of noun phrase, comprising of a noun and a cardinal numeral qualifying the noun. The numeral always follows the noun in both languages, as shown below-

Manipuri : yum yaŋ-khəi ‘fifty houses’
 house (N) fifty (Adj)

Tangkhul : ʃimhəŋ-phəŋa ‘fifty house’
 house (N) fifty (Adj)

Numerals in Tangkhul and Manipuri can function as noun too, whereas they functionally represent the things or objects qualified. Examples are given below-

<u>Manipuri</u>	<u>Tangkhul</u>	<u>English</u>
ə-mə-du	a-khə-ci	that one
one DET	one DET	
ni-pan-si	ciʃət-hi	these eight
eight DET	eight DET	
ni-phu-nə	həŋ-mə-ti-nə	(by) the forty
forty NOM	forty NOM	
kun-thra-gi	thum-ra-wui	(of) the thirty
thirty GEN	thirty GEN	

1.3.4 Re-occurring and Non-reoccurring Bases

The decimal numbers of Tangkhul and Manipuri, excepting 10 and 100, show no corresponding pattern of word-combination and morpho-phonemic behavior common to

both. Even though, some similarity can be seen in their paradigmatic positions within their numeral systems.

For example, in both Tangkhul and Manipuri, the numeral 20, unlike 10, remains isolated in its semantic relation with other decimal numbers, except that 20 is in Manipuri related to 30, as /kunthra/ ‘thirty’ is an additive compound comprising of /kun/ ‘twenty’ plus /təra/ ‘ten’.

In both languages, 30 has a semantic relation with 10. In Manipuri /kun-thra/ ‘thirty’ is an additive compound comprising of /kun+təra/, as already mentioned above, and in Tangkhul/thum-ra/ ‘thirty’ is a multiplicative compound, comprising of /kəthum/ ‘three’ times /thəra/ ‘ten’.

The numerals 50 in Manipuri i.e. /yaŋkhəi/ shows no identical phonemic structure and semantic relation with any of the decimal numbers, either preceding or following, and it remains phonologically too quite different from the rest of numerals for decimal numbers. But this does not happen in the case of Tangkhul, wherein the first element /həŋ/ of the numeral 50 is present in all the decimals from 40 to 90.

The numerals for decimal numbers may, therefore, be classified into (i) numerals with re-occurring base, and (ii) numerals with non-reoccurring base, on the basis of a base’s role in the formation of succeeding numerals denoting decimal numbers.

1.3.4.1. Re-occurring Base

The numeral /təra/ ‘ten’ in Manipuri is the base in the formation of three decimal numbers viz., 30, 70 and 90. How the base i.e. /təra/ ‘ten’ re-occurs as an additive is shown in the following tabulation –

- (a) /kun-thra/ ‘thirty’ ← (kun+thra) ← (kun+tra) ← (kun ‘twenty’ + təra ‘ten’)
- (b) /hum-phu-dra/ ‘seventy’ ← (hum-phu+dra) ← (hum-phu+tra) ← (hum-phu ‘sixty’ + təra ‘ten’)
- (c) /məu-dra/ ‘ninety’ ← {(mə(r + ph)u + dra (←tra))} ← (mə(r + ph)u (i) + ph + tra)
 ← (məri ‘four’ + ph + tra (←tra) + təra ‘ten’) ‘ninety’

In (a), (b) and (c) some phonemic changes can be seen in their underlying processes, such as /t/ becoming aspirated [th] and deletion of /ə/ in (a), and voicing of /t/ that becomes [d] in (b) and (c) and deletion of /r/, /ph/ and /ə/ in (c) which needs separate morpho-phonetic analysis for detailed description.

So, in the numerals /kun-thra/, hum-phu-dra/ and /məri-phu-dra/ 'təra' becomes a re-occurring base with a specified role of an additive, giving the meanings 'ten added to twenty', 'ten added to sixty', and 'ten added to eighty' respectively.

But in Tangkhul, this lowest decimal number i.e. 10 repeats itself only once i.e. in /thumra/ ← {(kə) thum 'three' + (thə)ra 'ten'} 'thirty'. But here, unlike Manipuri, the role of 10 is not that of an additive but of a multiplicative. So /thumra/ means three times ten i.e. thirty.

In Manipuri, the numerals 40, 60, 80 and 90 have the base /phu/ 'a score'. Basically it reoccurs three times only, each time their values are multiplied consecutively by 2, 3 and 4 in order to derive 40, 60 and 80. Then, /təra/ 'ten' is added to 80 to derive 90. So, 40, 60 and 80 is found to be multiplicative compound numerals, and 90 is found to be multiplicative cum additive compound numeral. The following tabulation shows the underlying structure of these decimal numbers –

/niphu/ 'forty' ← {(ə) ni 'two' + phu 'a score'} 'forty', i.e. two times a score

/humphu/ 'sixty' ← {(ə) hum 'three' + phu 'a score'} 'sixty', i.e. three times a score.

/məriphu/ 'eighty' ← (məri + phu) 'eighty', i.e. four times a score

The role of /phu/ 'a score' in the formation of /məudra ~məri- phu-dra/ 'ninety' is an auxiliary one as it is already present as a constituent unit in /mə-ri-phu/, and never a basic element as in the case of 40, 60, 80 where its role is rudimentary.

In the Tangkhul numerals the base /həŋ/, a variant of 'ten' is found re-occurring in /həŋ-məti/ 'forty', /həŋ-phəŋa/ 'fifty' and /həŋ-thəruk/ 'sixty', /həŋ-ʃini/ 'seventy', /həŋ-ciʃət/ 'eighty' and /həŋ-ciko/ 'ninety'. The underlying compounding process is that /həŋ/ 'ten' is multiplied by /məti/ 'four' and becomes /həŋ-məti/ 'forty' and so on.

1.3.4.2 Non-reoccurring Base:

In Manipuri /kun/ 'twenty' and /yaŋ-khəi/ 'fifty', though absolute in form, never occur in the succeeding decimal numerals. Their etymological reference is difficult to grasp. Here also Chelliah agrees with Pettigrew and gives the opinion that /yaŋ/ stands for 100 and /khəi/ is derived from the verbal root /khai (bə)/ meaning to 'divide' or 'bisect' [Chelliah, 1997, P.86]. But none of them gives the etymological resource of /yaŋ/.

1.3.5 Connective Versus Affixation

There is a sharp difference in the compounding pattern after the decimal numbers of Manipuri and Tangkhul. Both in Tangkhul and Manipuri the numerals after each decimal number e.g. (after 10) 11, 12, 13, 14, 19; (after 20) 21, 22, 23, 24, 29; (after 90) 91 97, 98 99 are in compound forms which are also known as additive compound. But the additive compound of Tangkhul, compared to Manipuri, clearly follows a more or less regular pattern.

In Manipuri numerals, the numerals 11-13 follow a process different from that of 14-19. The root of the verb /thoi-bə/ ‘be added or increased’ i.e. /thoi/ is suffixed to the numerals 1, 2 and 3 before making combined with the numerals 10 in order to derive 11, 12 and 13. The morphological structure of the three numerals are shown below –

/təra-ma-thoi/ ‘eleven’ ← {təra+ma(←mə)+thoi} ← {təra+ (ə)mə+thoi(bə)}

/təra-ni-thoi/ ‘twelve’ ← {təra+ni+thoi} ← {təra+(ə)ni+thoi(bə)}

[təra- hum-doi/ ‘thirteen’ ← {təra-hum+doi(←thoi)} ← {təra-(ə)hum+thoi(bə)}

The same structural pattern is applicable with 20, 30, 40, 50, 60, 70, 80 and 90, so that we have /kun-ma-thoi/ ‘twenty-one’, /kun-ni-thoi/ ‘twenty-two’, /kun-hum-doi/ ‘twenty-three’/məu-dra-ma-thoi/ ‘ninety-one’, /məu-dra-ni-thoi/ ‘ninety-two’, /məu-dra-hum-doi/ ‘ninety-three’.

But in Tangkhul the numerals 11-19 follow a uniformed structural rule. In order to derive the numerals 11-19, the numerals 1-9 are combined with 10 with a connective /-tə-/ in between. The structural pattern of this compounding is shown below –

/thə-ra-tə-akhə/ ‘eleven’ (thəra+tə+akhə)

/thə-ra-tə-khəni/ ‘twelve’ (thəra+tə+ khəni)

/thə-ra-tə-kəthum/ ‘thirteen’ (thəra+tə+ kəthum)

/thə-ra-tə-məti/ ‘fourteen’ (thəra+tə+ məti)

The process has to continue till we have /thəra+tə+ciko/ ‘nineteen’. The same rule applies to the numerals 20, 30, 40 and so on so that we have /məgɯ-tə-akhə/ ‘twenty one’ ... /thumra-tə-akhə/ ‘thirtyone’ ... /həŋməti-tə-akhə/ ‘fortyone’ ... /həŋciko-tə-ciko/ ‘ninety-nine’. The difference between the underlying structures in the additive compounds of 11-19 of Manipuri and Tangkhul marks the major difference in the numerals of the two languages.

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Cardinal Numerals in Manipuri and Standard Tangkhul: A Comparative Analysis

1.3.6 Multiplicative compound for the higher decimal numbers

Manipuri and Tangkhul follow the same morphological pattern i.e., multiplicative compound to derive higher decimal numbers. The structural pattern of multiplicative compounds of the two languages is shown below –

Manipuri	Tangkhul
ca-mə – {ca-(ə) mə}	∫ a- khə – {(∫a + (a)khə)} ‘one hundred’
ca-ni – {ca-(ə) ni}	∫ a-khə-ni – {∫a +khəni} ‘two hundred’
ca-hum – {ca-(ə) hum }	∫a-kə-thum – {∫a+kəthum)} ‘three hundred’

The list has to go on following the same pattern till we get /ca-mapən ~ ∫a -ciko/ ‘nine hundred’. It is clear that as in English and many other languages the underlying process is a process of multiplication, e.g. /ca-mə/ means 1 time 100, /ca-ni/ means 2 times 100, /cahum/ means 3 times 100 and so on.

The same structural pattern follows in the case of thousands, as given below –

Manipuri	Tangkhul	
/lisiŋəmə/←(lisiŋ +əmə)	thiŋ-khə← {thiŋ+(a) khə}	‘one thousand’
/lisiŋəni/←(lisiŋ +əni)	thiŋ-khəni← {thiŋ+khəni}	‘two thousand’
/lisiŋəhum/←(lisiŋ +əhum)	thiŋ-kəthum←(thiŋ+kəthum)	‘threethousand’
/lisiŋməri/←(lisiŋ + məri)	thiŋ-məti← (thiŋ+məti)	‘four thousand’

The list has to go on following the same pattern till we get / lisiŋmapən ~ thiŋciko/ ‘nine thousand’. So it is seen that both Manipuri and Tangkhul follow the same pattern of multiplicative compound in the formation of higher decimal numbers.

1.3.7 The Use of Connectivity between the Higher Decimal Numbers and the Following Numerals 1-9

Addition of the numerals 1-9 to hundred and thousand in Manipuri has the compound structure [ca +the numeral (1-9) + additive marker / supnə/. + the numeral (1-9)] and [lisiŋ + the numeral (1-9) + additive marker / supnə / + the numeral (1-9)]. Examples are given below –

- /ca-mə supnə əni / ‘one hundred and two’
- /ca-ni supnə tətət / ‘two hundred and seven’

/ lisiŋ əmə supnə məpən/ ‘one thousand and nine’

/ lisiŋ ɣəŋkhəi supnə nipan/ ‘fifty thousand and eight’

The use of /supnə/ is normally restricted to the numerals from 101 to 109. But it may be also used upto 119. The connective /supnə/ lexically means ‘only’.

In Tangkhul for the numerals 101-199 two connective markers are used as in the following example –

/ sakhə apa khəni/ }
/ sakhə tə khəni/ } ‘one hundred and two’

/ sakəthumapa ciʃət/ }
/ sakhəthumtə ciʃət/ } ‘three hundred and eight’

If the numerals are above thousand, only /-apə/ occurs before the numeral 1-9, when they are directly added to thousand. Examples are given below –

thiŋ-khəapa kəthum/ ‘one thousand and three’

thiŋ-thərukəpaciko/ ‘six thousand and nine’

In Manipuri, sometimes a connective /gə/ is also used as in the numerals from 101 to 199 e.g.

/ ca-məgəkun-ni-thoi/ ‘one hundred and twenty-two’

/ ca-məŋəgəyaŋ-khəi-təret/ ‘five hundred and fifty-seven’

But this particle [-gə-] is not mandatory in Manipuri. Likewise, in Tangkhul also the connective [-tə-] after the decimal numeral is not mandatorily used, as in –

/sa-khə-niməgəwətəkhə-ni/ ‘two hundred and twenty-two’

/ sa-thə-rukəŋ-ʃinitə ciʃət/ ‘six hundred and seventy-eight’

In the above example /apə/ or /tə/ is not used after the hundred decimals /sa-khə-ni/ and /sa-thə-ruk/, though it is retained in / sa-khə-ni tə məgəw/ ‘220’ and / sa-thə-ruk tə ʃi-ni/ ‘670’. The reason may be of prosodic consideration, because when /tə/ is used, this connective has to be repeated, which does not sound nice to the ear as well as not comfortable

to the articulators. The same cumbersome effect occurs if we substitute /tə/ with /apə/ just after the hundred decimal.

1.3.8 Prosodic Features of the Numerals in Manipuri and Tangkhul

One may ask: What is the relation between prosody and numerals? The answer lies in the fact that prosody is basically to do with the quality of being spontaneous in one's action, either verbal or non-verbal. And counting by numerals as a human activity is also usually and necessarily done with ease, without the least constraint, almost spontaneously and rhythmically, so that the counting action is not only easy, comfortable and enjoyable but also emphatic. This is universal phenomenon that we all have seen practically around us. There seems to be every possibility that native speakers of any language or dialect in the olden times took pains to make their numerals as short as possible, and sound rhythmic to the best possible extent, to enable them proceed their daily activities, both social and economic, without much constraint and interruptions owing to awkward shapes of numerals and inept compounds or lengthy phrases representing the high value numerals starting practically from the ones above 10.

While natural languages are primarily rhythmic, just as Halliday rightly observes, their numerals cannot afford to be unrhythmic. He states that 'the tendency towards a regular beat is much more marked in casual speech than in self-conscious monitored speech such as lecturing or reading aloud' [Halliday, 1985, p. 270]. But the most important point here is that while individual words, both lexical and grammatical, are not rhythmic in themselves, and they are rendered rhythmic only in connected speech, numerals basically embody rhythm in themselves. This testifies the ingenuity of the ancestors when they ever took to coining the numerals, involving by the nature of the job a complex mechanical process of trial and error through selection, combination, deletion, truncation, assimilation, dissimilation, mutation without having the academic knowledge of linguistic science.

Halliday gives two broad categorizations of rhythm, namely (i) syllable rhythm or syllable timing, and (ii) pedalliam rhythm or stress timing. In the first kind, the tempo depends on the syllable, so that all the syllables tend to be of roughly the same length. In the second kind, the tempo depends on the foot, so that all the feet tend to be of roughly the same length. The Manipuri and Tangkhul rhythms are of the syllable rhythm type.

We have already seen that in Manipuri the numerals 11-13 follow a structure different from that of 14-19, but in Tangkhul the numerals 11-19 follow a uniformed structure. The rule remains static for the numerals 21-23, 31-33, 41-43, 91-93 in Manipuri, and for 21-29, 31-39, 41-49 ... 91-99 in Tangkhul. If we do a close examination on the number of syllables and their impact on the tendency of rhythm-making while counting, we could explain why certain manipulations are necessarily done to maintain a harmony in the number of syllables of the numerals, mainly those of the basic numerals. Now let us examine the following table -

Numerical figure in English	Manipuri		Tangkhul	
	Numeral	No. of syllables	Numeral	No. of syllables
11	təra-ma-thoi	four	thəra-tə-akhə	five
12	təra-ni-thoi	four	thəra-tə-khəni	five
13	təra- hum-doi	four	thəra-tə-kəthum	five
14	təra-mə-ri	four	thəra-tə-məti	five
15	təra-mə-ŋa	four	thəra-tə-phəŋa	five
16	təra-tə-ruk	four	thəra-tə-thəruk	five
17	təra-tə-ret	four	thəra-tə-ʃini	five
18	təra-ni-pan	four	thəra-tə-ciʃət	five
19	təra-ma-pən	four	thəra-tə-ciko	five

We have seen in the table above that in Manipuri the numerals 11-13 stand out differently from the rest in 14-19 in their having the suffixation [-thoi -doi]. But it is noticed that all the numerals including 11-13 have an equal number of syllable i.e. four. As a result we come to know that while there are four syllables in each of the numerals 11-19, there are two in the numerals 1-10. Now it is possible to utter rhythmically the disyllable i.e. 1-10 in two ways – (i) first, with a relatively stronger accent and a rising intonation on the first syllable, which is made quantitatively longer than usual, and with a relatively weak or no accent and falling tone on the second, (ii) secondly, with a relatively stronger accent on the second syllable, which is quantitatively longer than usual. In both ways, a rhythm is maintained.

When we count by Manipuri numerals, the rhythmic pattern naturally changes after 10 owing to the increased number of syllables. When we move from the two syllables of 1-10 to four syllables of 11-19, if we start with the way as given in (i) above, we may probably switch on to a pattern with a stress on the third syllable which will be in rising tone with a quantitatively longer vowel, ending with the fourth vowel in falling tone. If we start with the way as given in (ii) above, we may possible switch on to a rhythmic pattern with stress on the fourth syllable with a falling tone. In this pattern the second syllable may be given a secondary accent. Here it may be noted that the final syllable may display variations in tone subject to the individual's emotion and feeling.

Now the most important thing is that in Manipuri the suffixation process of /thoi~doi/ in /təra-mathoi/ 'eleven', /təra-nithoi/ 'twelve' and /təra-hum-doi/ 'thirteen' does not retain in the case of 14, 15, 16 etc. If, supposing, [-thoi~ -doi] retains in 14, 15, 16 etc, then, there would have been a partial uniformity in the phonological shape of the syllables with identical final sounds i.e. /thoi/ and /doi/ throughout, but with no uniformity in the number of syllables. This is illustrated in the following tabulation –

(a) /təra-ma- thoi / 'eleven';	having four syllables
/təra-ni- thoi / 'twelve' ;	.. four ..
/təra-hum- doi / 'thirteen' ;	.. four ..
(b) */təra-mə-ri- thoi / 'fourteen';	.. five ..
*/təra-mə-ŋa- thoi / 'fifteen';	.. five ..
*/təra-tə-ruk- thoi / 'sixteen';	.. five ..
*/təra-tə-ret- thoi / 'seventeen';	.. five ..
*/təra-ni-pan- thoi / 'eighteen';	.. five ..
*/təra-ma-pən- thoi / 'nineteen';	.. five ..

In this hypothetically modified structure in 14-19 given at (b) each of the numerals has /thoi~doi/ as additive suffix, thereby bringing in a uniformity in the phonemic shape of the prefixations of the numerals 11-19. But then it creates a disuniformity in the number of syllables i.e. four in (a), and five in (b) thereby affecting the rhythmic flow. In this modified structure when we move from 13 to 14, we come across a sudden change in the number of syllables from four to five, and it surely disturbs the rhythmic pattern that has been continuing so far. This may explain why /thoi-doi/ is dropped in (b) i.e. from /təra-məri/ onwards.

Again, it may be examined further that if the pattern of {təra +1-3 + /-thoi~ doi/} is being followed in the case of 14-19 we would have had –

- (a) /təra-**ma-thoi**/ ‘eleven’ ← {tə-ra+(ə)ma+thoi}
 /təra-**ni-thoi**/ ‘twelve’ ← {tə-ra+(ə)ni+thoi}
 /təra- **hum-doi**/ ‘thirteen’ ← {tə-ra-(ə)hum+doi(←thoi)}
- (b) */tə-ra-**ri -thoi**/ ‘fourteen’ ← {tə-ra+(mə)-ri+ thoi}
 */tə-ra-**ŋa-thoi**/ ‘fifteen’ ← {tə-ra+(mə)ŋa+thoi}
 */tə-ra-**ruk-thoi**/ ‘sixteen’ ← {tə-ra+(tə)ruk+thoi}
 */tə-ra-**ret-thoi**/ ‘seventeen’ ← {tə-ra-(tə)ret+thoi}
 */tə-ra-**pan-thoi**/ ‘eighteen’ ← {tə-ra-(ni)pan+thoi}
 */tə-ra-**pən-thoi**/ ‘nineteen’ ← {tə-ra-(ma)pən+thoi}

In this hypothesis as given above, the compounds thus derived show a uniformity in the number of syllables. Even then, these numerals do not give an easy and comfortable articulation with the exception of */tə-ra-mə-ŋa-thoi/ ‘fifteen’. This uneasiness in their articulations are caused by the repetition of ‘r’ in 14, 15, 16, 17 and repetition of /a/ in 18. Even if /təra-pən-thoi/ ‘nineteen’ is prosodically sounds alright in terms of the continued sequence, təra-ma-pən sounds much better since it matches with the preceding numerals, therefore the rejection of /təra-pən-thoi/ in preference of /təra-ma-pən/ to maintain sequential uniformity.

From this observation, it can be postulated that the speakers of Manipuri in the ancient times had to manipulate the numerals 11-19 in such a way that they are perfectly rhythmical in their final shapes. This may be postulated as a proof to the assumption that the early speakers of Manipuri were highly conscious of verbal aesthetics.

The Tangkhul numerals 10-19 also show this property i.e. love of rhythm in no lesser degree. The only difference is that in Tangkhul the structure is simpler and easier without involving much manipulation. The disyllable of the numerals 1-10 has normally an accent on the second syllable with the last vowel getting drawled and the rhythm easily switches on to the next pattern of rhythm, which has accent on the second and the fifth (i.e. the final) syllable accompanied with rising intonation on the second, and a falling tone on the fifth.

The same rhythm pattern discussed above is followed by the numerals 20-29, 30-39, 40-49 etc.

Of the two way of saying /əmə, əni, əhum/ of Manipuri the one given in (ii) above is almost same with that of /akhə, khəni, kəthum.../ of Tangkhul, while the other way of saying given in (i) has no correspondence in Tangkhul normally.

The number of syllable in the numerals 11-19 is four in Manipuri and five in Tangkhul. But then the third syllable /tə/ in Tangkhul is very weakly articulated so that the length of time or the duration taken in uttering the Tangkhul numerals 11-19 is sufficiently reduced to equalize itself with that of its Manipuri counterparts. The disyllables found in the numerals 1-10 in both languages also contribute to the similarity in their prosodic form[i.e. rhythm]. That is to say that the numerals 11-19 in both languages are rhythmically identical.

Conclusion

In conclusion, we can say that there are more similarities than dissimilarities in the morpho-phonemic and morpho-syntactic structures of Manipuri and Tangkhul, as exemplified by their numerals, since numerals reflect many of the morpho-syntactic and morpho-phonemic properties of a language. The use of some obscure words, hardly used in normal vocabulary, like /phu/ in Manipuri and /həŋ/ in Tangkhul provokes us to look for their etymologies. The range of similarity as shown by the pairs / khəni ~əni/ ‘two’, /məti~məri/ ‘four’, /təra~thəra/ ‘ten’ etc. is juxtaposed with the range of dissimilarity as found in the pair /ʃini~təret/ ‘seven’ and /ʃiʃət~ niʔan/ ‘eight’. Whereas in the case of /ni-pan/ ‘eight’, /ma-pən/ ‘nine’ in Manipuri the semantic role of the /pan~pən/ can be deciphered, that of /ci/ in /ci-ʃət/ ‘eight’ and /ci-ko/ ‘nine’ in Tangkhul cannot as yet. And it throws a challenge to the linguists to decipher it satisfactorily.

Love of rhythm is well reflected in the formation of numerals, particularly from 11 to 19 in both languages, even though Manipuri shows a greater degree of manipulation in 11-19 for the sake of verbal harmony.

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