

Numerals in Hrangkhoh

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Abstract

The North-East region of India is known for its linguistic diversity and is home to the densest concentration of languages of the Tibeto-Burman family. More than a hundred Kuki-Chin languages are spoken in and around the seven North-Eastern states. Hrangkhoh is a Kuki language of the Tibeto-Burman family spoken in Assam, Tripura, and parts of Manipur and Mizoram. The present paper proceeds from recent, extensive fieldwork and discusses the numeral system of the Hrangkhoh language spoken in Assam. Numerals are expressions used in daily interactions to calculate, count objects, make measurements, or transmit data of any kind. Like most Tibeto-Burman languages, Hrangkhoh also has a decimal numeral system. Higher numeral values are expressed by combining items of lower numeral values through addition or multiplication. In Hrangkhoh, both suffixes and prefixes are added to the basic numerals to form different types of numerals. The numerals in Hrangkhoh can be classified into cardinal, ordinal, multiplicative, fractional, distributive, restrictive, and approximate. Syntactically, the numerals usually follow the head noun, as in other SOV languages.

Keywords: Numerals, Hrangkhoh, Kuki, Assam.

1. Introduction

Hrangkhoh is a Kuki language belonging to the Tibeto-Burman language family of Northeast India. According to Grierson's *Linguistic Survey of India* Vol. III, Part III (1903) and Bradley (1997), Hrangkhoh is part of the Old Kuki sub-group of the Tibeto-Burman language family. It is spoken in Assam, Tripura, and parts of Manipur and Mizoram. The Census of India (2000) estimates the Hrangkhoh community's population to be approximately 18,700, which is

also cited in the *Ethnologue* (2023). According to the EGIDS scale in *Ethnologue* (2023), the Hrangkhoh language's status is threatened. In Assam, the primary location of the Hrangkhohs is in Haflong Circle of Dima Hasao District (previously known as North Cachar Hills). The Hrangkhohs are distributed over a wide geographical region. Although they have a noticeable degree of homogeneity, some dialectal differences can be observed within the language. Debbarma (2018) divides Hrangkhoh into four major regional dialects: the Barak Valley or Hrangkhoh dialect, the Hrangchal dialect, the Sranglong Dialect, and the Hrangkhawl Dialect. This paper will discuss the numeral system of the Barak Valley or Hrangkhoh dialect. Historically, like many tribes in North-East India, the Hrangkhoh tribe did not have a written script until the arrival of Christian missionaries.

2. Literature Review

Like most of the other tribal languages of Northeast India, Hrangkhoh has limited written literature available. Compared to other languages, Hrangkhoh is still in its early stage of written literature, and comprehensive linguistic or scientific research has not been conducted on the language. The language has only been briefly described in C. A. Soppitt's (1887) *A Short Account of the Kuki-Lushai Tribe of the North-East Frontier* and Grierson's (1903) *Linguistic Survey of India, Vol. III, Part III*, which provides an overview of the history and socio-cultural life of the community, a grammar sketch, and a list of annotated words and texts. The first linguistic work on the Hrangkhoh language was a language primer, *Hrangkhoh Nam Chonga Irchuna Lekhabu- A Learner's Book of the Hrangkhoh Language* (2017). The book presents an overview of the phonetics and morphology of the language along with annotated words. The first comprehensive work on the Hrangkhoh language was a doctoral thesis by Surath Debbarma (2018). His thesis, *The Structure of Hrangkhawl: A Kuki-Chin Language*, was the first exhaustive linguistic study of the language, where he discusses the phonology, morphology, and syntax of the Hrangkhawl dialect spoken in Tripura. However, no such exhaustive study has been carried out on the Hrangkhoh dialect spoken in Assam.

3. Methodology

The paper presents a comprehensive analysis of the numerals in Hrangkhoh. The data was obtained through direct and group interviews. To prevent errors in the transcription of sounds from native speakers, questionnaires and voice recorders were used to record the data. The data was collected from informants of varying age groups and genders.

4. Numerals in Hrangkhoh

Like other Kuki-Chin languages, Hrangkhoh uses a decimal counting system from one to ten. Similar to many Tibeto-Burman languages, compounding is a productive morphological process used to form higher numerals in the language. These numbers have complex or derived lexemes. Numerals in Hrangkhoh can be categorized as follows:

1. Cardinal Numerals
2. Ordinal Numerals
3. Multiplicative Numerals
4. Fractional Numerals
5. Distributive Numerals
6. Restrictive Numerals
7. Approximative Numerals

4.1 Cardinal Numerals

Structurally, the cardinal numerals in Hrangkhoh can be subdivided into two types: (i) basic number words and (ii) compound numerals.

4.1.1 Basic Number Words

The basic cardinal system in Hrangkhoh is straightforward. Hrangkhoh has independent lexical entries for the numbers one to ten. Compound numeral formation begins only after ten. The words for one to nine are bimorphemic and the word for ten is monomorphemic. The language has a prefix ‘in-’ attached to the Proto-Tibetan root from one to three. The numeral four

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has ‘ma-’ prefixed to the PTB root. The ‘-n-’ in ‘minli’ four may have arisen as nasal prosody through the influence of the prefix ‘ma-’. Five has a liquid prefix ‘r-’. With the higher numerals, six and eight forms a discontinuous run in ‘ki-’, interrupted by the conservative ‘sa-’ in seven (Matisoff, 1997). Nine does not have any prefix attached and forms the conservative root. The ten in Hrangkhoh is different from the Proto-Tibeto Burman root. Instead, the root ‘*som/*tsom’ is a typical Kuki-Chin feature for both the independent numeral for ten and the first constituent in higher multiples. The table below presents a comparative analysis of the basic numerals in several Kuki languages of Northeast India and highlights the differences in affixes across these languages.

Table 1: Basic Numerals in Kuki Languages

PTB	Hrangkhoh	Biate ¹	Kom ²	Anal ³	Gloss
*kat	ink ^h at	k ^h ətka	ink ^h ət	ək ^h e	‘one’
*g-ni-s	inŋi	inika	inŋi	əŋə	‘two’
*g-sum	int ^h um	it ^h umka	int ^h um	ət ^h um	‘three’
*b-liy = *b-ləy	minli	ilika	mənli	pəli	‘four’
*l-ŋa	riŋa	riŋaka	rəŋŋa	pəŋa	‘five’
*d-ruk	kiruk	irukka	kəruk	təru	‘six’
*s-nis	sari	sarika	səri	tək ^h ə	‘seven’
*b-r-gyat ~ b-g-ryat	kiriet	irietka	kəret	təri	‘eight’

¹ Haokip, M. H. (2019). *A descriptive grammar of Biate*. Doctoral Thesis. Assam: Assam University.

² Chongom, D. A. (2007). *A descriptive grammar of Kom*. Ph.D. Thesis. Manipur: Manipur University.

³ Devi, T. T. (2015). *A descriptive grammar of Anal*. Ph.D Thesis. Assam: Assam University.

*d-kuw = *d-kəw ~ *d-gaw	kuok	ikuakka	ku	təku	'nine'
*gip ~ *ts(y)i(y) ~ *tsyay	so:m	somka	som	som	'ten'

4.1.2 Compound Numerals

Compound numerals in Hrangkhol are formed by combining two or more numeral morphemes and are highly productive in the language, as in most Tibeto-Burman languages. The compound cardinals can be divided into three groups: (i) additive compound numerals, (ii) multiplicative compound numerals, and (iii) additive cum multiplicative compound numerals.

4.1.2.1 Additive Compounds

The additive compound numerals are formed using the basic numerals from one to nine, along with the numeral ten. In these compounds, the higher numeral comes before the lower numeral, with the head on the left side of the compound word. It is worth noting that the numeral prefixes 'in-' and 'ki-' are dropped when forming the higher numerals from 10 onwards. The morpheme /le/ *and* is added between the two numbers to indicate addition. The numerals from eleven to nineteen are formed as additive compounds in Hrangkhol, as shown in the following examples.

Table 2: Additive Compound Numerals

Basic Numeral	Morpheme	Basic Numeral	Compound Numeral	Gloss
		/k ^h at/ <i>one</i>	/som _l ek ^h at/	eleven
		/ŋi/ <i>two</i>	/som _l eni/	<i>twelve</i>

/som/ <i>ten</i>	/le/ <i>and</i>	/t ^h um/ <i>three</i>	/som _l et ^h um	<i>thirteen</i>
		/riŋa/ <i>five</i>	/som _l eriŋa/	<i>fifteen</i>
		/ruk/ <i>six</i>	/som _l eruk/	<i>sixteen</i>
		/riet/ <i>eight</i>	/som _l eriet/	<i>eighteen</i>
		/kuok/ <i>nine</i>	/som _l ekuok/	<i>'nineteen'</i>

4.1.2.2 Multiplicative Compounds

In Hrangkhoh, the words for multiples of ten are formed by multiplying the basic cardinal numerals by the numeral ten. For example, the word for twenty, 'som_{ni}', consists of 'so:m' *ten* with 'in_{ni}' *two*, and the word for thirty, 'som^hum', consists of 'so:m' *ten* with 'int^hum' *three*. To form numbers beyond one hundred, the numeral for hundred, /irza', or thousand, /saŋ/, is suffixed by the basic numeral. When forming multiplicative compound numerals, the higher numeral always precedes the lower numeral. Examples of such numerals are shown below.

Table 3: Multiplicative Compound Numerals

Basic Numerals		Compound Numerals	Gloss
/som/ <i>ten</i>	/n _i / <i>two</i>	/som _{ni} /	<i>twenty</i>
/som/ <i>ten</i>	/t ^h um/ <i>three</i>	/som ^h um/	<i>thirty</i>
/som/ <i>ten</i>	/riŋa/ <i>five</i>	/somriŋa/	<i>fifty</i>
/som/ <i>ten</i>	/ruk/ <i>six</i>	/somruk/	<i>sixty</i>
/som/ <i>ten</i>	/riet/ <i>eight</i>	/somriet/	<i>eighty</i>

/irza/ <i>hunderd</i>	/k ^{hat} / <i>one</i>	/irzak ^{hat} /	<i>one hundred</i>
/irza/ <i>hunderd</i>	/t ^{hum} / <i>three</i>	/irzant ^{hum} /	<i>three hundred</i>
/saŋ/ <i>thousand</i>	/k ^{hat} / <i>one</i>	/saŋk ^{hat} /	<i>one thousand</i>
/saŋ/ <i>thousand</i>	/riŋa/ <i>five</i>	/saŋriŋa/	<i>five hundred</i>

4.1.2.3 Multiplicative cum Additive Compounds

These numerals are formed by multiplying the first two digits and then adding the third digit. They follow the mathematical rule of BODMAS to calculate larger numbers, where addition follows multiplication. These numerals range from twenty-one to ninety-nine, excluding multiples of ten. Examples are illustrated below.

Table 4: Multiplicative and additive compound Numerals

Basic Numerals			Compound Numeral	Gloss
/som/ <i>ten</i>	/ŋi/ <i>two</i>	/ink ^{hat} / <i>one</i>	/somŋiink ^{hat} /	<i>twenty-one</i>
/som/ <i>ten</i>	/ŋi/ <i>two</i>	/inni/ <i>two</i>	/somŋiinni/	<i>twenty-two</i>
/som/ <i>ten</i>	/t ^{hum} / <i>three</i>	/riŋa/ <i>five</i>	/somt ^{hum} riŋa/	<i>thirty-five</i>
/som/ <i>ten</i>	/riŋa/ <i>five</i>	/sari/ <i>seven</i>	/somriŋasari/	<i>fifty-seven</i>
/som/ <i>ten</i>	/ruk/ <i>six</i>	/riet/ <i>eight</i>	/somrukriet/	<i>sixty-eight</i>
/irza/ <i>hundred</i>	/k ^{hat} / <i>one</i>	/somk ^{hat} / <i>ten</i>	/irzak ^{hat} somk ^{hat} /	<i>one hundred and ten</i>

/irza/ <i>hundred</i>	/ŋi/ <i>two</i>	/somk ^h at/ <i>ten</i>	/ink ^h at/ <i>one</i>	/irzaŋi somk ^h at ink ^h at/	<i>two hundred and eleven</i>
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When cardinals and adjectives occur as attributes of a noun, they follow the noun, as do articles and all the nominal phrasal components. A cardinal numeral can indicate plurality, and the noun is not overtly marked with the plural affix. However, when the other nominal components are added with the cardinals, the plural marker is suffixed to the noun phrase.

Noun	Noun + Numeral	Gloss	[Noun + Numeral + Adjective]-PL	Gloss
/lek ^h abu/ <i>book</i>	/lek ^h abu inŋi/ book two	<i>two books</i>	/lek ^h abu inŋi ədum-hai/ book two blue-PL	<i>two blue books</i>
/nupaŋte/ <i>girl</i>	/nupaŋte riŋa/ girl five	<i>five girls</i>	/nupaŋte riŋa əsei-hai/ girl five tall-PL	<i>five tall girls</i>
/dokaŋ/ <i>table</i>	/dokaŋ som/ table ten	<i>ten tables</i>	/dokaŋ som əlien-hai/ table ten big-PL	<i>ten big tables</i>

4.2 Ordinal Numerals

Like many other Tibeto-Burman languages, Hrangkhoh forms its ordinal numerals by means of affixation. The ordinal numerals are created by adding the nominalizer suffix ‘-na’ to the cardinal numerals. Examples of ordinal numerals in Hrangkhoh are provided below.

Table 5: Ordinal Numbers in Hrangkhoh

Hrangkhoh	Ordinal suffix	Hrangkhoh	Gloss
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/ink ^h at/	<i>one</i>	‘-na’	/ink ^h atna/	first
/inŋi/	<i>two</i>		/inŋina/	second
/int ^h um/	<i>three</i>		/int ^h umna/	third
/minli/	<i>four</i>		/minlina/	fourth
/so:m/	<i>ten</i>		/so:mna/	tenth
/so:mŋi/	<i>twenty</i>		/somŋina/	twentieth
/so:mt ^h um/	<i>thirty</i>		/somt ^h umna/	thirtieth
/irzak ^h at/	<i>hundred</i>		/irzak ^h atna/	hundredth
/saŋk ^h at/	<i>thousand</i>		/saŋk ^h atna/	thousandth

4.3 Multiplicative Numerals

In Hrangkhoh, multiplicative numerals are derived from cardinal numerals through affixation. The cardinal numerals are prefixed by 'voi-' *a certain number of times* and suffixed by the nominalizer morpheme '-na' to form multiplicative numerals. This process of adding a prefix and suffix is highly productive in Hrangkhoh. The multiplicative numerals in Hrangkhoh are shown below.

Table 6: Multiplicative Numerals in Hrangkhoh

Prefix	Basic Numeral	Suffix	Multiplicative Numeral	Gloss
	/k ^h at/ <i>one</i>		voik ^h atna	once

‘voi-’	/ṅi/ <i>two</i>	‘-na’	/voṅina/	<i>twice</i>
	/t ^h um/ <i>three</i>		/voit ^h umna/	<i>thrice</i>
	/ruk/ <i>six</i>		/voirukna/	<i>six times</i>
	/som/ <i>ten</i>		/voisomna/	<i>ten times</i>
	/somt ^h um/ <i>thirty</i>		/voisomt ^h umna/	<i>thirty times</i>
	/somriṅank ^h at/ <i>fifty-one</i>		/voisomriṅank ^h atna/	<i>fifty-one times</i>
	/irzak ^h at/ <i>hundred</i>		/voiiirzak ^h atna/	<i>one hundred times</i>
	/saṅṅi/ <i>two thousand</i>		/voisaṅṅina/	<i>two thousand times</i>
	/irzak ^h at somk ^h at ink ^h at/ <i>one hundred and eleven</i>		/voirzak ^h at somk ^h at ink ^h atna/	<i>one hundred and eleven times</i>

4.4 Fractional Numerals

The lexical items for ‘half’, ‘piece’, and ‘quarter’ are the only basic fractional numerals in the language. Fractional numeral in Hrangkhoh is very rare as only a few of them exist. It is one of the typical features of the Tibeto-Burman languages also shared by Hrangkhoh and its neighbouring languages. The fractional numbers in Hrangkhoh are illustrated below.

/acimrip/	<i>half</i>
/arḷep/	<i>piece</i>
/pavak ^h at/	<i>quarter</i>

Apart from the fractional numerals mentioned above, other types of fractional numerals

are expressed through multi-morphemic words. The table below describes the fraction as a smaller part of a greater whole. In this formation, the denominator, which is the larger number, precedes the numerator, which is the smaller number.

Table 7: Fractional Numerals in Hrangkhoh

Fractional Numerals	Gloss
ba:k int ^h um ata ba:k k ^h at <i>part three from part one</i>	<i>one out of three (1/3)</i>
ba:k riŋa ata ba:k int ^h um <i>part five from part three</i>	<i>three out of five (3/5)</i>
ba:k minli ata ba:k k ^h at <i>part four from part one</i>	<i>one out of four (1/4)</i>

4.5 Distributive Numerals

In Hrangkhoh, distributive numerals are formed by reduplicating the cardinal numerals. It is observed that not the entire numeral is reduplicated; rather, only the numeral root is reduplicated followed by the morpheme ‘-in’ as shown in the following examples.

/ink ^h at k ^h atin/	<i>one by one</i>
/inŋi ŋin/	<i>two by two</i>
/int ^h um t ^h umin/	<i>three by three</i>
/anreŋin/	<i>all of them/ everyone</i>
/ansikin/	<i>each one</i>

4.6 Restrictive Numerals

Restrictive numerals in Hrangkhol are formed by adding the suffix ‘-vaih’ *only* to the numerals as shown in the following examples

Table 8: Restrictive Numerals in Hrangkhol

Basic Numeral	Suffix	Restrictive Numeral	Gloss
/ink ^h at/ <i>one</i>	‘-vaih’ <i>only</i>	/ink ^h atvaih/	<i>one only</i>
/voik ^h at/ <i>once</i>		/voik ^h atvaih/	<i>once only</i>
/inŋi/ <i>twice</i>		/inŋivaih/	<i>two only</i>
/acimrip/ <i>half</i>		/acimripvaih/	<i>half only</i>
/pavak ^h at/ <i>quarter</i>		/pavak ^h atvaih/	<i>quarter only</i>
John		/johnvaih/	<i>John only</i>
/ŋa/ <i>fish</i>		/ŋavaih/	<i>fish only</i>

4.7 Approximative Numerals

In Hrangkhol, the approximative numerals are formed by adding the suffix ‘-ve:l’ to the cardinal numerals. The cardinal numerals may be preceded by a specific item for the numeral as shown in the following examples.

Table 9: Approximative Numerals in Hrangkhol

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Hrangkhol	Gloss
pasal riŋa-ve:l/ boy five-AprxN	<i>about five boys</i>
/lek ^h abu inŋi-ve:l/ book two-AprxN	<i>about two books</i>
/da:rka:r ŋi-ve:l/ hour two-AprxN	<i>about two hours</i>
/her t ^h um-ve:l/ kilogram three-AprxN	<i>about three kilograms</i>

5. Conclusion

Based on the above analysis, it can be concluded that Hrangkhol numerals are of decimal type. The basic cardinal numerals are bound roots that take numeral formative prefixes such as in-, m-, r-, ki-, and sa-. However, numerals ten, hundred, and thousand are free morphemes, meaning that they do not take any kind of affixes. Compound cardinals are formed by compounding basic cardinal numerals. To form additive compounds from 11 to 19, a marker, /le/, is added between ten and basic cardinal numerals. Multiplicative cardinal compounds are formed by compounding basic cardinals to each other. Multiplicative cum additive numerals are formed by multiplying the first two numerals and then adding the third numeral. The plural morpheme /-hai/ cannot co-occur with the numerals, but when other nominal components are added with the cardinals, the plural marker is suffixed to the noun phrase. Ordinal numerals in Hrangkhol are

formed by adding the suffix ‘-na’ to the basic cardinal numerals. Multiplicative ordinal numerals are formed by prefixing ‘voi-’ with the ordinal numerals. Fractional numerals in the language are rare compared to other numerals. Distributive numerals in Hrangkhoh are formed by partial reduplication of the cardinal numerals. Restrictive numerals are formed by adding the suffix /vaih/ only to the numerals, while approximative numerals are formed by suffixing /ve:l/ to the cardinal numerals.

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