A sketch grammar of Chang

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A Sketch Grammar of Chang

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Abbreviations and Conventions

The following abbreviations and conventions are used in the thesis:

/ /	phonemic transcription	G	glide
[ ]	phonetic transcription	S	single (argument of an intransitive verb)
́	high level toneme		
`	low level toneme	A	agent (argument of a transitive verb)
¯	mid level toneme		
11	low level allotone	O	Patient (argument of a transitive verb)
33	mid level allotone		
55	high level allotone	TB	Tibeto-Burman
σ	syllable	SOV	Subject-Object-Verb order
§	section in the paper.	e.g.	for example
C	consonant	i.e.	that is
V	vowel	*	proto

The following abbreviations are used in glosses:

1	first person	GEN	genitive
2	second person	INC	inclusive
3	third person	INES	inessive
ABL	ablative	INST	instrumental
ALL	allative	INTER	interrogative
ASP	aspect	IRR	irrealis
AUG	augmentative	LOC	locative
AUX	auxiliary	MASC	masculine
AWAY	'away' lexical suffix	NEG	negative
BEN	benefective	NOM	nominaling suffix
CAUS	causative	ORD	ordinal
CAUSAL	causal converb suffix	PL	plural
CLASS	classifier	POSS	possessive pronoun
COLL	collective	PRES	present
COM	comitative	PST	past
CONT	continuative	REL	relational morpheme
CONJ	conjunction	RC	relative clause
DAT	dative	RPET	repetitive
DIM	diminutive	SEP	'separate' lexical suffix
DIST	distal demonstrative	SEQ	sequential converb
DU	dual	SG	singular
DUR	durative converb	SIM	simultaneous converb
ERG	ergative	PURP	purposive
EX	exclusive	UP	'ascend' lexical suffix
FEM	feminine		

Abstract

This paper describes a sketch grammar of Chang, a Tibeto-Burman language spoken in Nagaland state, north-east India. The sketch grammar uses data collected from a fieldwork in Nagaland. The data includes an elicited 800-wordlist and 2 narrative texts. The chapters of the grammar are mainly divided into phonology and morphosyntax. In the phonology chapter, Chang has 17 consonant phonemes and 7 vowel phonemes. There are also 3 tonemes: high level, low level and falling. The morphosyntax chapters covers word classes, nominal morphology, verbal morphology and ending with grammatical functions. Chang uses constituent order and ergativity to prescribe grammatical functions. It is hoped that this paper will shed a little more light on the Chang languages and other Tibeto-Burman languages in the Nagaland.

Keywords – Chang, phonology, morphosyntax, grammar, Tibeto-Burman, Nagaland

1   Introduction

The aim of this thesis is to sketch a preliminary grammar of Chang, a Tibeto-Burman language spoken in the north-east Indian state of Nagaland. It serves to contain a preliminary description of phonology, morphology and syntax of the language.

There are a total of 7 chapters in this thesis. This first chapter deals with the background of the language and the source of the data. The second chapter provides a description of the phonology and the phonological processes of the language. Chapters 3 to 7 cover the grammatical portions of Chang, specifically word classes, nominal morphology, verbal morphology, clause structure and grammatical functions. To narrow the scope for this thesis, focus is given to the grammatical portions.

1.1   Language Classification

Linguistic studies concentrating on the languages of the Sino-Tibetan (ST) language family has proliferated in the last 55 years (Matisoff 1991). The TB languages and the Sinitic languages constitute the two main daughter branches of the ST language family. The TB family was conceived as early as the 1850s when it was found that there are cognate words between Written Tibetan and Written Burmese (Matisoff 1991). India is home to more than 107 languages that belong to the TB family and the speakers of these languages are concentrated mainly in the 7 states of north-east India (Matisoff 1991; Burling, 2003). Nagaland is one of the 7 states of north-east India and spans 6350 square miles with Myanmar forming its east borders. Languages spoken in Nagaland belong to the TB language family.

1.1.1   Chang

Chang is spoken by people living in Tuensang, located north-east of Nagaland state. Figure 1 shows the location of Tuensang in Nagaland state.

Figure 1 Map of Nagaland

Alternate names for Chang include Mojung, Changyanguh, Machongrr, Mochumi and Mochungrr. There are several different names for Chang because names differ between what the group of people call themselves (autonym) and what other groups call them (exonyms) (Matisoff 1991). Some names also derived from locations such as a distinct village or a river nearby. According to Lewis (2009), there were 60,900 speakers of Chang living in 36 villages in 2001.

Within the subgroup of TB, Chang has been classified together with Konyak, Phom and Khiamngan, also spoken in north-east Nagaland. This group, called the Konyak group, also includes Nocte, Tangsa and Wancho spoken in neighbouring north-east Indian state, Arunachal Pradesh (Burling, 2003). Geographically, these languages are spoken in the vicinity of the state border that divides Nagaland and Arunachal Pradesh in north-east India. Burling (1983) has attempted to group the Konyak languages together with the Bodo and Jinghpaw languages to form the Bodo-Konyak-Jinghpaw subgroup based on shared lexical innovations that other languages in the TB family do not exhibit. This sub-grouping is also named the 'Sal' languages by Burling (1983) after the innovation of *sal* 'sun' by these languages.

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Work focusing Chang is relatively few. This includes a sketch grammar written by Hutton in 1929 and a Chang-English, English-Chang dictionary (see Erdican, 2003).

1.2 Source of Data

The unpublished data provided for the analysis for this paper was shared by my supervisor, Assistant Professor Alexander Coupe. He collected the data during fieldwork in Nagaland between 2005 and 2006. The data comes in the form of recordings and the hand-written transcriptions with interlinearizations. It is limited to the following:

- transcribed recordings of over 800-item lexical word list
- interlinearized text recording of Chafe's (1969) film, *The Pear Story*
- interlinearized text recording of Mayer's (1969) picture book, *Frog, Where are you?*

The lexical words were elicited in a substitution frame, *ŋə́j _____ làw-tá* (1SG.ERG _____ say-PRES) 'I say _____' followed by a repeat of the lexical item twice in isolation. This is to allow for tones to be recognised.

I have used a software tool, *Praat*, to check transcriptions and tones of the elicited words. The texts were input into software programs, *Transcriber* and *Toolbox*, to create a lexicon and a database of interlinearized texts aligned with the recordings. These facilitated my analysis of the language. In the phonology section, the analysis is based on the elicited word list. The grammatical sections are written based on the analysis of both the word list and the texts.

2 Phonology

This chapter gives a description of the phonology of Chang. Section 2.1 illustrates the syllable structure of Chang. Following that in sections 2.2 and 2.3, the Chang phonemes and their allophonic realisations are given. Allophonic realisations occur when two phones are in complementary distribution as they do not appear in the same environment (Lass 1984: 18). To be allophones of one phoneme, two phones must be phonetically similar other than being in complementary distribution. Lastly, a description of the tonemes and the allophonic realisations are given in section 2.4.

2.1 Syllable Structure

The hierarchical syllable structure of Chang is represented metrically in Figure 2 with reference to Coupe (2006b). Optional constituents are represented in parenthesis. Utterances

are made up of one or more syllables and each syllable consist of an optional onset and a rhyme. Therefore, it is possible for a syllable to have no initial consonant at all. Tonemes are discussed in §2.4.

$$\sigma + \text{Tone}$$

Onset   Rhyme

                    Nucleus   Coda

(C_1) V_1 (V_2) (C_2)
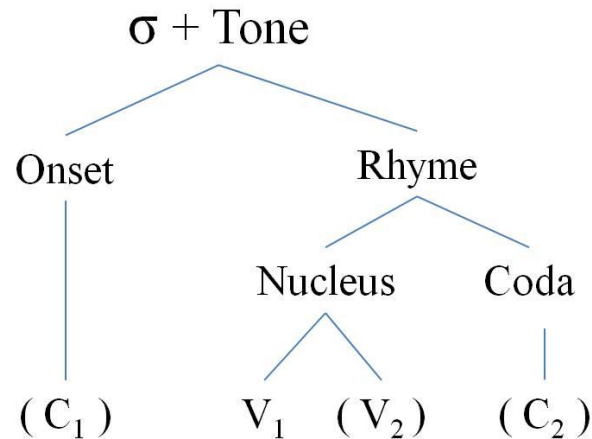
Figure 2 Metrical Syllable Structure of Chang

The optional onset slot allows for only a consonant. It can be filled with any of the following consonant phonemes list in Table 2-1. The segmental consonant phonemes are further described in §2.2.

Table 2-1 Syllable-initial consonant phonemes

p	t	k	
pʰ	tʰ	kʰ	
s	ʃ	ʧ	h
m	n	ɲ	ŋ̣
l	w	j	

The rhyme contains an obligatory nucleus and an optional coda. The nucleus consists of a mandatory vowel and an optional glide. Any of the vowel phonemes, /a/, /i/, /u/, /e/, /o/, /ɯ/, /ə/ can fill V_1. The vowel phonemes are described in §2.3. The optional V_2 is non-syllabic and can be filled with either a glide or a lengthening of the obligatory V_1. A glide can be either /j/, /w/ or /ɯ/. The vowel and glide sequences attested in Chang are /aj/, /aw/, /ej/, /ow/, /əj/, /əɯ/. The position of the glide can also be filled by a lengthening of V_1 as there is a contrast in the length of vowel in Chang e.g., between /kʰàmpɯ́/ 'finish-NOM' and /kʰàːmpɯ́/ 'be.cold-NOM'. Long vowels that have been attested to be phonemic in Chang are /aː/, /eː/ and

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/iː/. The long vowels are not recognized as separate vowel phonemes but rather, a sequence of vowels where V_1 and V_2 are filled with the same vowel phoneme. This is to minimize the vowel phoneme number.

The optional coda is limited only to voiceless unaspirated stops, /p/, /t/, /k/ and nasals, /m/, /n/, /ŋ/. A glottal stop also occurs in word-final position and thus, could be thought to be in the coda position. However, when the glottal stop in the coda position of a syllable is followed with another syllable, it is dropped. Thus, the glottal stop is not realised in the word-medial position. The distribution pattern of the glottal stop is restricted only to the end of the word and it is dropped in a word-medial environment as seen in the following two examples shown in Table 2-2[1]. The roots for 'lick' and 'give' are given as *séʔ* and *kúʔ* respectively.

Table 2-2 Distribution of the glottal stop

GLOSS	REALISATION	GLOSS	REALISATION
NEG-lick	[a³³-se⁵⁵ʔ]	NEG-give	[a³³-ku⁵⁵ʔ]
lick-NOM	[se³³bɯ⁵⁵]	give-NOM	[ku³³-pɯ⁵⁵]
lick-PST.AUX	[se³³-kəj⁵⁵]	give-RPET-PST.AUX	[ku⁵⁵-ŋəj³³-kəj¹¹]

This distribution pattern of the glottal stop in Chang resembles that put forward by Coupe (2007) of Ao, a Tibeto-Burman language spoken in Mokokchung district of Nagaland state. Coupe (2007: 77) argues convincingly that given such a restricted distribution pattern, the glottal stop in Ao is better postulated as "a prosodic element occupying an independent tier in the prosodic hierarchy of the word" rather than a segmental phoneme. Therefore, the glottal stop in Chang shall be given the same status of word prosody instead of a phoneme restricted to only a word-final realisation.

2.2 Consonant Phonemes

There are 17 consonant phonemes in Chang, of which 10 are obstruents (stops, fricatives and afficates) and 7 are sonorants (nasals, laterals and approximants). These are listed in Table 2-3 according to the place and manner of articulation. The orthographic symbols used in the text and language examples in this thesis are represented in parentheses.

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[1] ⁵⁵ corresponds to high level tone; ¹¹ to low level tone; ³³ to mid level tone and ⁵¹ to falling tone. The tones of Chang are discussed in §2.4

Table 2-3 Consonant phonemes in Chang

	BILABIAL	ALVEOLAR	POST-ALVEOLAR	PALATAL	VELAR	GLOTTAL
STOP						
ASPIRATED	p (p)	t (t)			k (k)	
UNASPIRATED	pʰ (ph)	tʰ (th)			kʰ (kh)	
AFFRICATE				ʧ (ʧ)		
FRICATIVE		s (s)	ʃ (ʃ)			h (h)
NASAL	m (m)	n (n)		ɲ (ɲ)	ŋ (ŋ)	
APPROXIMANT						
LATERAL		l (l)				
CENTRAL	w (w)			j (j)		

The glottal stop is not recognized as a segmental phoneme for reasons given in §2.1.

2.2.1 Oral Stops

Stops can occur in the coda position. The stops occur at three distinctive places of articulation: bilabial, alveolar and velar. It demonstrates the generalization of all languages having a minimal system of having three stops (Lass 1984: 147). The stops at these places of articulation show an aspiration contrast: voiceless aspirated versus voiceless unaspirated. The following (sub-) minimal pairs of words show phonemic aspiration contrasts of the voiceless stops occurring word-initially and word-medially at each of the three distinctive places of articulation.

/p/ versus /pʰ/
/pák/   'bat'   /àpʰálé/   'NEG-shallow'
/pʰák/   'shoulder'   /ápàŋ/   'NEG-diverge'

/t/ versus /tʰ/
/tánpʉ̀/   'pass'   /àtāŋ/   'NEG-straight'
/tʰám/   'soil'   átʰáɲjù ʔ/   'NEG-hit'

/k/ versus /kʰ/
/kámpʉ̀/   'make'   /ákə̀n/   'NEG-carry'
/kʰāmpʉ̀/   'be cold'   /ákʰə̀n/   'NEG-burry'

There is no voicing contrast of the stops, e.g. /p/ is realised as [p] or [b] in free variation conditioned by the environment of a following /ɯ/. Voicing in stops appears to be a marked state in these languages. Phom does not have voiced stops and although Wancho has a voiced stop at the velar place of articulation, /g/, it is very rare (Burling & Wangsu 1998; Burling & Phom 1998). The following shows the allophonic realisations of bilabial stops.

/p/   unaspirated bilabial stop
     →   [p] ~ [b]   / _ɯ   in free variation
            [p]   / elsewhere
    examples:
    /látpɯ́/   [lat³³pɯ⁵⁵]   'reap'
    /áŋpɯ́/   [aŋ³³bɯ⁵⁵]   'ascend'

/pʰ/   aspirated bilabial stop
     →   [pʰ]
    examples:
    /pʰè/   [pʰe⁵⁵]   'flesh'
    /āpʰɔ̀ʔ/   [a³³pʰɔʔ¹¹]   'NEG-place' (v)
    /ɲákpʰínpɯ́/   [ɲá⁵⁵kpʰɪn³³pɯ⁵⁵]   'to scatter rice while eating'

The following shows the allophonic realizations of alveolar stops. Note that unlike /p/ which can be realized as voiced in word-initial position, /t/ is not realized as [d] in word-initial position but only in the environment where it follows a vowel. /t/ becomes realized as voiced due to the voicing of the previous vowel.

/t/   unaspirated alveolar stop
     →   [t] ~ [d]   /V_   in free variation
     →   [t]   / elsewhere
    examples:
    /lídípɯ́/   [li⁵⁵di³³pɯ⁵⁵]   'release'
    /táp/   [tap⁵⁵]   'ashes'
    /sét/   [set⁵⁵]   'eight'
    /kàwták/   [kaw⁵⁵tak³³]   'earth'

/tʰ/   aspirated alveolar stop
     →   [tʰ]
    examples:
    /tʰoʔ/   [tʰoʔ⁵¹]   'half'
    /átʰɔ̀t/   [a³³tʰət¹¹]   'NEG-snap'
    /ítáktʰúŋ/   [ɪ⁵⁵tak³³tʰuŋ⁵⁵]   'mortar'

The following allophonic realizations are of the velar stops. Unlike /p/ and /t/, /k/ is not realized as [g] in the data.

/k/		unaspirated velar stop	
	→	[k]	

examples:

/kípɯ́/	[ki³³bɯ⁵⁵]	'exist'
/làŋkə́j/	[laŋ³³kəj⁵⁵]	'life'
/ík/	[ɪk⁵⁵]	'finger'

/kʰ/	aspirated velar stop	
	[kʰ]	/ elsewhere

examples:

/kʰù/	[kʰu¹¹]	'head'
/láŋkʰə̀n/	[laŋ³³kʰən¹¹]	'cave'
/kʰɯ̀ŋpɯ́/	[kʰɯŋ³³bɯ⁵⁵]	'bind'

To voice stops, there needs to be accumulation of air between the lungs and the obstruction caused at the place of articulation. In articulating [b] and [d], the oral closure occurs near to the front of the mouth, lips and alveolar positions respectively, as compared to [g] where the oral closure occurs further back in the mouth with back of the tongue touching the soft palate. Less air can be stored between the lungs and the oral closure, making it harder to articulate [g] as compared to [b] and [d].

2.2.2 Affricate

There is only one affricate identified to be phonemic in Chang, /ʧ/. It is analysed as a separate series of obstruent from the stops because unlike the stops, there is no aspiration contrast in the affricate. It also cannot occur in the coda position whereas the sops can. The only affricate /ʧ/ is found in word-initial and word-medial positions as shown in the following allophonic realization.

/ʧ/		unaspirated palatal affricate	
	→	[ʧ]	

examples:

/ʧə́m/	[ʧəm⁵⁵]	'salt'
/túʧĭ/	[tu⁵⁵ʧĭ³³]	'oil'
/ʧànpɯ́/	[ʧan³³bɯ⁵⁵]	'distribute'

2.2.3 Fricatives

There are three fricatives in Chang and they occur at the alveolar, post-alveolar and glottal places of articulation, /s/, /ʃ/, /h/ respectively. They only occur in the onset position of a syllable and never in the coda. The fricatives do not demonstrate aspiration contrasts. The following (sub-) minimal pairs of words show a phonemic contrast between the alveolar fricative and post-alveolar fricative occurring word-initially and word-medially.

/s/ versus /ʃ/

/sí/	'blood'	/āsàŋ/	'NEG.lick'
/ʃĭ/	'grandchild'	/āʃàŋ/	'NEG.thick'

The following (sub-) minimal pairs of words show a phonemic contrast between the post-alveolar fricative and palatal affricate occurring word-initially and word-medially.

/ʃ/ versus /ʧ/

/ʃàkpɨ/	'pinch'	/lìʃâŋ/	'tongue'
/ʧák/	'thorn'	/sāʧáŋ/	'seat'

The following demonstrate the allophonic realisations of the fricatives. The voiced realisation of [z] is triggered by the nasal preceding it.

/s/   alveolar fricative
     →   [z]   /N_
     →   [s]   /elsewhere
     examples:

/kʰàŋzə́ŋjálá/	[kʰaŋ¹¹zəŋ³³ja³³la⁵⁵]	'mosquito'
/sólò/	[sɔ³³lo¹¹]	'free' (n)
/májsù/	[maj⁵⁵su¹¹]	'monkey'

/ʃ/   voiceless post-alveolar fricative
     →   [ʃ]
     examples:

/ʃów/	[ʃow⁵⁵]	'child'
/máiʃì/	[maj⁵⁵ʃi¹¹]	'deer'
/ʃàwpɯ́/	[ʃaw³³bɯ⁵⁵]	'eat'

The voiceless glottal fricative in Chang can only fill in the onset of a syllable. Contrastively, the glottal stop can only fill in the coda position of a syllable. This voiceless glottal frication is found in word-initally and word medial position in the following allophonic realisation.

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/h/		voiceless glottal fricative	
	→	[h]	/elsewhere

examples:

/híánpɯ́/	[hi⁵⁵an³³pɯ⁵⁵]	'pick' (v)
/hín/	[hɪn⁵⁵]	'crab'
/pùhék/	[pu³³hek⁵⁵]	'fruit'
/úhùʔ/	[u³³huʔ¹¹]	'NEG.conceal'

2.2.4 Nasals

In comparisons of phonetically similar nasals, 4 nasals are found to be phonemically distinctive and they occur at the bilabial, alveolar, palatal and velar places of articulation. The bilabial and alveolar nasals can occur in both the onset and coda of a syllable and thus may be found in word-initial, word-medial and word-final positions. On the other hand, the palatal and velar nasals are more restrictive in distribution. The palatal nasal only occurs in the onset of a syllable and thus, may be found in word-initial and word medial position. In contrast, the velar nasal occurs in both onset and coda of a syllable even though less frequently in the onset. About 13.8% or 122 words of the 800 over words in the word list have /ŋ/ occurring in the coda of a syllable whereas only 4.4% or 39 words have /ŋ/ occurring in the onset of a syllable.

The following (sub-) minimal pairs of words show phonemic contrasts between the bilabial and alveolar nasals and between palatal and velar nasals occurring at different positions of a word.

/m/ versus /n/

/ môw/	'wound'	/kə́mpɯ́/	'do'
/nôw/	'ear'	/kə̀npɯ́/	'carry on back'
/sə̀m/	'three'		
/sə́n/	'lungs'		

/ɲ/ versus /ŋ/

/ɲáŋpɯ́/	'near'	/áɲáɯ/	'NEG-be.rotten'
/ŋáŋpɯ́/	'be sad'	/áŋâw/	'vulva'

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The following shows the allophonic realizations of nasals at different places of articulation.

/m/   bilabial nasal
→   [m]

examples:

/má:púɯ/	[ma^{33}:pɯ^{55}]	'forget'
/ŋə̀m/	[ŋəm^{11}]	'neck'
/ʃĭmóŋ/	[ʃi^{33}moŋ^{55}]	'navel'

/n/   alveolar nasal
→   [n]

examples:

/nìkú/	[ni^{33}ku^{55}]	'needle'
/pʰótnák/	[pʰot^{55}nak^{33}]	'mole on skin'
/òn/	[ɔn^{55}]	'basket'

/ɲ/   palatal nasal
→   [ɲ]

examples:

/ɲú/	[ɲu^{55}]	'mother'
/ɲá:tpúɯ/	[ɲa:t^{33}pɯ^{55}]	'squeeze'
/tʰáɲék/	[tʰa^{33}ɲek^{55}]	'face'

/ŋ/   velar nasal
→   [ŋ]

examples:

/ŋówpúɯ/	[ŋow^{33}pɯ^{55}]	'fly' (v)
/pʰàŋá/	[pʰa^{33}ŋa^{55}]	'below'
/já:ŋ/	[ja:ŋ^{55}]	'worm'

2.2.5 Approximants

There is one lateral approximant phoneme occurring at the alveolar place of articulation and two central approximant phonemes occurring at the bilabial and palatal places of articulation.

The following shows the allophonic realisations of the approximants.

/l/   voiced alveolar lateral approximant
    →   [l]   / elsewhere
    examples:
    /lá/   [la⁵⁵]   'brass'
    /ŋɯ́lì/   [ŋɯ³³li⁵⁵]   'tale'
    /wánlòŋ/   [wan³³loŋ¹¹]   'flame'

/w/   voiced labial-velar approximant
    →   [w]
    examples:
    /wán/   [wan⁵⁵]   'fire'
    /àŋów/   [a³³ŋow⁵⁵]   'NEG-dumb'
    /ʧàlówá/   [ʧa³³lo⁵⁵wa⁵⁵]   'daytime'

/j/   voiced palatal approximant
    →   [j]

    examples:
    /jákpɯ́/   [ja:k⁵⁵pɯ⁵⁵]   'sell'
    /jípùk/   [ji³³puk¹¹]   'rabbit'
    /sátjúpɯ́/   [sat⁵⁵ju³³pɯ⁵⁵]   'flee'

2.3 Vowel Phonemes

There are 7 vowel phonemes in Chang as shown in the following table. They phonemic symbols are represented as it is in orthography, i.e. in text and language examples.

Table 2-4 Vowel Phonemes

	FRONT	CENTRAL	BACK
HIGH	i		ɯ u
MID	e	ə	o
LOW		a	

The length of the vowels, /a/, /e/ and /i/ contrast phonemically in Chang. It is accounted for in the syllable structure (see §2.1) to minimize vowel phoneme numbers. This is to adhere to the general principal of making systems as simple as possible (Lass 1984: 25)

The following (sub-) minimal pairs of words demonstrate phonemic contrasts between phonetically similar vowels.

/i/ versus /e/		/ə/ versus /a/	
/pí/	'grandparent'	/sáŋ/	'village'
/pʰè/	'flesh'	/sə́n/	'lungs'

/ɯ/ versus /ə/		/u/ versus /o/	
/lɯ̂/	'sting'	/kʰù/	'head'
/lə̂m/	'odour'	/kʰò/	'that'

The high front vowel, /i/ is realised as [ɪ] when it precedes an oral stop, i.e. /p/, /t/, /k/ or a nasal stop, i.e. /m/, /n/, /ŋ/ in the coda position. /ɲ/ does not occur in the coda position. In preparing for the oral or nasal closure, the vowel /i/ is realised as extra short, thus results in the realisation of [ɪ], e.g. [ɪp¹¹] 'slap' and [kʰɪn⁵⁵] 'shut'.

/i/

→	[ɪ]	/ _ [+stop]	in free variation
→	[i]	/elsewhere	

examples:

/ʧípə̀n/	[ʧɪ³³pən¹¹]	'flower'
/ʧìnpɯ́/	[ʧɪn³³pɯ⁵⁵]	'put'
/wì:/	[wi:¹¹]	'body hair'

The following shows the allophonic realisations of the vowel phonemes.

/e/

→	[e]

examples:

/sèk/	[sek¹¹]	'field'
/ʧè/	[ʧe:¹¹]	'one'
/néjkʰèk/	[nej³³kʰek¹¹]	'strip of clothing'

/ə/

→	[ə]

examples:

/ʃáŋə̀t/	[ʃa³³ŋət¹¹]	'before'
/kʰə̀n/	[kʰən¹¹]	'hole'

/ɯ/

→	[ɯ]

examples:

/lɯ̂/	[lɯ⁵¹]	'sting'
/ʧéjɯ́pɯ́/	[ʧej¹¹ɯ³³bɯ⁵⁵]	'exchange'
/sə́mpɯ́/	[səm³³pɯ⁵⁵]	'compress'

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/a/

    →   [a]

examples:

/ták/	[ta:k⁵⁵]	'back'
/ŋàw/	[ŋaw¹¹]	'fish'
/kéjláŋ/	[kej³³laŋ⁵⁵]	'kidney'

Chang does not make a phonemic distinction between the mid-high rounded back vowel [o] and the mid-low rounded back vowel [ɔ] and thus, the phoneme /o/ is realised as [o] or [ɔ] in free variation. The frequency of the first formant of the phoneme /o/ in word tokens may lie anywhere between 450Hz to 650Hz. The following shows the allophonic realisations of the vowel phonemes, /o/ and /u/.

/o/

    →   [ɔ] ~ [o]   in free variation

examples:

| /kólì/ | [kɔ³³li⁵⁵] | 'horse' |
| /álò/ | [a³³loʔ¹¹] | 'NEG-stand' |

/u/

    →   [u]

examples:

/tʰùɲú/	[tʰu³³ɲu⁵⁵]	'elephant'
/ʃíúŋ/	[ʃiuŋ⁵⁵]	'abdomen'
/úk	[uk⁵⁵]	'pig'

2.4 Tonemes

In Hutton's (1929) documentation of the Chang language, Hutton differentiates between three tones: high, mid and low. Hutton uses examples only from minimal pair of words where there is a tonal contrast between the high and mid level tones. For example, both lexical items, 'salt' and 'house' are transcribed as *cham* by Hutton (1929: 4) but 'salt' has a high tone while house has a low tone. No examples for mid-tone are given. On the other hand, Coupe (2006b) identifies 3-tone system in Chang: low level, high level and falling. Contrastingly, a falling tone is not identified by Hutton (1929). The fundamental frequency of monosyllabic tokens in each tone level are measured across two speakers and plotted on a graph as a function of time. Figure 3 shows the frequency in hertz of the tonemes identified by Coupe (2006b) in Chang.

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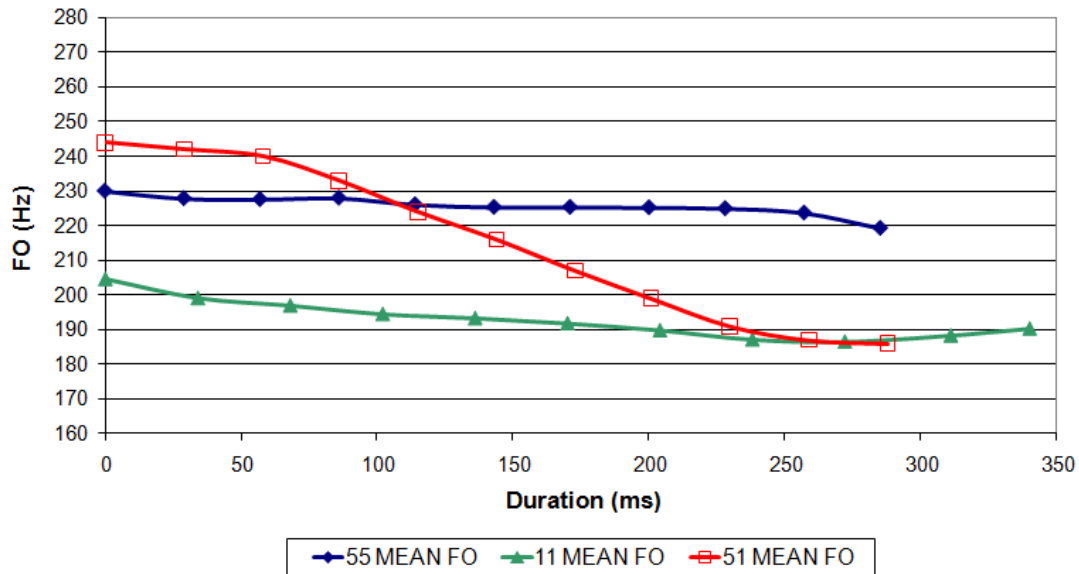
Figure 3 Tonemes in Chang (source: Coupe, 2006b)

Tonemes are given in diacritics and allotonic realisations of tonemes are given using the numerical values of Chao's (1930) tone letters. The high tone is the most widespread / ó́ /. Low tone / ò̰ / is the second most widespread in the language. Falling tone / ô̰ / is rare, e.g. *kôw* 'door', *kû* 'nine'. There is a possibility that the falling tone could have been borrowed as related languages may borrow tone categories and systems from each other (Matisoff 1992). In both Phom and Wancho which are grouped together with Chang under the Konyak subgroup, falling tones are shown to be prevalent (Matisoff & Phom 1998; Matisoff & Wangsu 1998). The likelihood needs further research.

Utterances can have up to 5 syllabes, e.g. *kə̀ʃàwèpùják* 'son's wife'. High tones may be realised as mid-level tones when they precede or follow a syllable with a low tone. Similarly, low tones may be realised as mid-level tones when they precede or follow a syllable with a high tone. Mid level tones do not occur on monosyllables in isolation. The alternation in tones is due to the tone sandhi effect. A syllable seems to be influenced in both ways by both the preceding and the following syllable. A further investigation of the tone sandhi effect is needed and this is beyond the scope of this thesis. Therefore, the tone sandhi is approximated as the following:

/ó́/ → [σ³³] /_σ̀

→ [σ³³] /σ̀_

→ [σ⁵⁵] / elsewhere

examples:

/ʃĭmóŋ/ ʃĭmòŋ 'navel'

/jíbùk/ [jĭbùk] 'rabbit'

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/ σ̀/	→	[σ³³]	/ _ σ́
	→	[σ³³]	/ σ̄⃗_
	→	[σ¹¹]	/ elsewhere

examples:
| /tʰùŋú/ | [tʰūŋú] | 'elephant' |
| /sə́mpɨ́/ | [sə̄mpʉ́ɪ] | 'compress' |

2.5 Morpho-phonologoical Process

In an elicitation of the negativity of items in the word list, it was discovered that the negative prefixes may be realised in different forms as seen in Table 6-1. The negative prefix is realised as *á-* in more than half of the elicited negated verbs. The allomorphs arise due to the effect of vowel harmony across morpheme boundaries. The realisation of the negative prefix is conditioned by the vowel of the following verb stem. This is illustrated in the following rule:

á- → V_n- / ___ (h) V_n

In the presence of a consonant in the onset position, the vowel change is only triggered by the glottal fricative in the onset position of the syllable in the verb root.

Table 2-5 Different realizations of the negative prefix, a-

	VERB	GLOSS	NEGATED VERB	GLOSS
(i)	*tòm-pʉ́*	dance-NOM	*á-tòm*	NEG-dance
(ii)	*hán-pʉ́*	be.new-NOM	*ʉ́-hʉ́n*	NEG-be.new
(iii)	*hə̀t-pʉ́*	frightened-NOM	*ə́-hə̀t*	NEG-frightened
(iv)	*hù-pʉ́*	hide-NOM	*ú-hùʔ*	NEG-hide
(v)	*ólín-pʉ́*	'enjoy-NOM	*ó-ólín*	NEG-enjoy
(vi)	*ójú-pʉ́*	fight-NOM	*ó-ójùʔ*	NEG-fight

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3 Word Classes

Word classes, also known as parts-of-speech, can be distinguished in a language based on the following criteria (Schachter 1985: 3):

- Distribution – the position that a word occurs in
- Function – the grammatical function that the word plays in a larger structure whether it is acting as an argument or a predicate
- Associated grammatical categories – the types of inflectional and derivational morphology that are able to occur on their stems

A distinction can also be made between open and closed word classes (Robins 1964: 230). Closed classes have a restricted membership of words largely the same for all speakers of the language. Membership for open classes, on the other hand, is unrestricted and may vary from speaker to speaker, time to time. In Chang, nouns and verbs belong to the open word classes whereas pronouns, numerals, demonstratives, postpositions and discourse connectives constitute the closed word classes. The list of word classes may not be comprehensive because most of the data are from texts instead of elicitation.

3.1 Nouns

Nouns function as the heads of noun phrases. They are mostly comprised of lexical items that refer to entities that exist in space and time like people, places or things. Abstract nouns such as those that refer to qualities or states can also be derived from nominalizing verbs with the suffix, *-pú*, e.g. *hèmáj-pú* (be.beautiful-NOM) 'be beautiful' (see §4.4 for nominalizations).

Most nouns are mono or disyllabic in Chang, e.g. *lóŋ* 'boat', *hín* 'crab', *sùnnà* 'gold'. Noun that have more than two syllables are rare, e.g. *nə́jsə̀mə́j* 'clothes'. Some of the nouns that have two syllables or more are actually formed by the compounding of two nouns, e.g. the compounding of *sə́n* 'breast' and *tèj* 'water' to give *sə́ntèj* (breast+water) 'milk'.

Nouns in Chang are unbound as they do not seem to employ relational morphemes to group related nouns together. This is different from the related languages, Wancho and Phom. In Wancho, some words concerning the sky or the weather are prefixed with *zaŋ-*, e.g. *zaŋ-han* 'REL-sun', *zaŋ-vat* 'REL-rain' (Burling & Wangsu 1998: 56). Phom employ a similar form, *ʒang-* (Burling & Phom 1998). However, in Chang, they are simply *ʧə̀nú* 'sun' and *làŋ* 'rain'. There is also no relational morpheme found in body parts, e.g. *phúm* 'arm', *ìk* 'finger'. This is interesting for reconstruction of proto-Konyak and perhaps, further research can be done.

3.1.1 Pronouns

Pronouns are forms used to substitute a noun or a noun phrase. Personal pronouns in Chang have distinctions in person, number and case. 3 persons (first, second and third), 3 numbers (singular, dual and plural) and 2 cases (ergative and absolutive) are distinguishable. The distinction in cases tells the semantic roles (see §6 for grammatical functions). Table 3-1 shows the list of personal pronouns in Chang. These pronouns are elicited data.

Table 3-1 List of Personal Pronouns

		1		2		3	
		ERG	ABS	ERG	ABS	ERG	ABS
SG		ŋèj	ŋò	ɲì	nò	hàwèj	hàw
DUAL	INC	sə́tíèj	sə́tí	kásèj	kásì	hàwsìèj	hàwsì
	EXC	kə́síèj	kə́sí				
PLURAL	INC	sə́nèj	sə́n	kánpə̀ntòwèj	kánpə̀ntòw	hàwə̀nèj	hàwə́ń
	EXC	kə́nèj	kə́n				

The following example shows the use of the ergative first person singular pronoun in text.

(1) **ŋèj**   *thúɲù*   *lápákə̀j*   *tò*   *lə́nkə̀j*
     1.SG.ERG elephant   catch-ANT-AUX   thus   tell-AUX.PST

"I have caught an elephant", he said.

3.2 Verbs

Verbs express actions, processes or states (Schachter 1985: 9). The ability of verbs to negate is the most defining criterion for establishing this word class in TB languages (Matisoff 1991: 495). In Chang, verbs can be negated with the prefix *à-*, e.g. *à-káŋ* (NEG-be.strong) 'not strong' (see §2.5 for allomorphs of the negative prefix and §5.1.1 for discussion of the negative prefix). Verbs in Chang function as the predicate head but not as arguments. They can also be inflected for tense, aspect and modality, e.g. *kàm-kə̀j* (make-PST) 'made', along with various suffixes on the verb stem (see §5.1 for verbal morphology).

Verb classes can be identified based on transitivity determined by the number of core arguments a verb requires (Crystal 1980). Core arguments are the participants in clauses and depending on the associated verb, they can be assigned semantic roles such as agent (A) or patient (O) (Payne 1997: 47) (see §6 for semantic roles in grammatical functions).

Chang verbs can be classified into intransitive and transitive classes.

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3.2.1 Intransitive verbs

An intransitive verb occurs as the head of a verbal clause with only a single core argument (Payne 1997: 171). Intransitive verbs in Chang may describe states, e.g. *ólín* 'be.happy', *àw* 'be.hot', bodily functions, e.g. *jə̀p* 'sleep', *ʧə́tʧə́t* 'urinate' or motions, e.g. *pì* 'fly', *làŋ* 'run'.

3.2.2 Transitive verbs

A transitive verb occurs as the head of a verbal clause with two core arguments, describing the relation between these two participants (Payne 1997: 171). Examples of transitive verbs in Chang include verbs of perception such as *ʧə̀m* 'look', *lám* 'search' and verbs of action-processes such as *thàŋjú* 'hit', *sə̀p* 'pierce'. These verbs involve both an agent and an affected patient.

A further sub-class, surface-contact verbs can be derived from the transitive verb class and is explained in the following section.

3.2.3 Surface-contact verbs

"Surface-contact verbs" coined by Fillmore (1970: 130) emphasizes on the existence of some physical contact between two participants. The two participants may not necessarily have undergone any change. Example of surface-contact verbs in Chang include *ìp* 'slap', *sàmbúŋʃáp* 'kiss' and *ŋám* 'beat'.

Surface-contact verbs are singled out from the rest of the transitive verbs in Chang because their O arguments are marked differently from that of other transitive verbs. The O arguments take on a dative marking *-là*, unlike the O arguments of the rest of the transitive verbs being unmarked (see §6.1.2 for case marking).

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3.3 Numerals & Classifiers

Numerals in Chang follow classifiers to quantify nouns, e.g. púhèk pɔ́m sɔ̀m (fruit CLASS 3) 'three pieces of fruit'. Table 3-1 shows numerals of Chang from one to ten.

Table 3-2 Chang numerals from 1 to 10

NUMERAL	FORM	NUMERAL	FORM
1	ʧèʔ	6	lâk
2	ɲíʔ	7	ɲét
3	sɔ̀m	8	sét
4	lɔ̂jʔ	9	kû
5	ŋâwʔ	10	ân

In Chang, numerals eleven to nineteen are expressed with ten being used as a base, e.g *án-tìk-ʧèʔ* (10-ABOVE-1) 'eleven' which can be literally translated as one above ten. In the expression of round numbers from twenty onwards however, a vigesimal counting system which means that the base is twenty is used. Chang belongs to a group of what Matisoff (1995: 149) terms as the "super-vigesimal" languages along with other members of the Konyak group, Wancho, Phom and Konyak. In this group, the even round numerals (20, 40, 60, 80) are expressed as multiples of twenties while the odd round numerals (30, 50, 70, 90) are expressed in addition or subtraction of the next lower or higher multiple of twenty (Matisoff 1995). They are "super-vigesimal" because even hundred is expressed as five times of twenty. Two hundred is therefore expressed as ten times of twenty. In Chang, the odd round numerals are found to be ten subtractive from the next higher multiple of twenty as shown in Table 3-3. Thirty is however, uniquely expressed as *khùʧîn*.

Table 3-3 Chang round numerals

NUMERAL	FORM	DERIVATION
20	*sàwʧèʔ*	20 x 1
30	*khùʧĭn*	unique
40	*sàwɲíʔ*	20 x 2
50	*ánʧĭnsə̀m*	substrate 10 from (20 x 3)
60	*sàwsə̀m*	20 x 3
70	*ánʧĭnlə̂jʔ*	substrate 10 from (20 x 4)
80	*sáwlə̂jʔ*	20 x 4
90	*ánʧĭnŋâwʔ*	substrate 10 from (20 x 5)
100	*sàwŋâwʔ*	20 x 5
200	*sàwán*	20 x 10
1000	*házàɹ*	loan from Hindi.

In between round numbers, the numerals are expressed in the form of an addition to, e.g. twenty-one is given as *sàw-tòʔ-ʧèʔ* (20-ALL-1) which can be literally translated as 'one added to twenty'. The same form, *tòʔ*, is also postposition encoding the spatial case of allative. (see §3.5.1 for spatial cases).

Cardinal numerals are suffixed with *-pów* to form ordinals. *-pów* is also a nominalizing suffix (see §4.4 and §4.4.2 for more about *-pów*). The ordinal given in (2) functions as an adverbial.

(2) *hàw* *pù-ɲú* *tòʔ* **ɲì-pów** *áːŋ-ŋə́j-ʧĭnèj*
    3SG tree-AUG ALL **two-ORD** climb-RPET-while
    'While he was climbing the tree a second time,'

3.4   Demonstratives

Demonstratives are used in Chang to point to the referent of the following noun (Schachter 1985: 40). A demonstrative may act like a determiner by modifying the noun it follows. Such a demonstrative is marked for case if it occurs at the end of a noun phrase, e.g. *kéj khò-éj* (dog this-ERG) 'this dog'. Table 3-4 shows the demonstratives in Chang. This list is not comprehensive as they are extracted from texts and not elicited.

Table 3-4 Demonstratives in Chang

ENGLISH GLOSS	FORM
This	*hò*
That	*khò*
Here	*hátòw*
There	*khátòw*

hátòw 'here' and *khátòw* 'there' are distal demonstratives that refer to space and can take the role of a pronoun, e.g. *háw-èj khátòw ʧə́u-kə̀j* (3SG-ERG there look.PST) 'he looked there'.

3.5   Postpositions

Postpositions follow noun phrases in Chang e.g. *màŋjúk à* (shirt LOC) 'in [his] shirt]', encoding semantic cases. The postpositions can be categorized into spatial (§3.5.1) and non-spatial markers (§3.5.2).

3.5.1   Spatial Cases

A postposition that marks spatial cases indicates location in space. A list of the forms and their semantic meanings is given in Table 3-5. There is similarity in form between the locative *á* and the ablative *káʔ*. DeLancey (1985: 62) argues that the ablatives in TB languages come from a more general locative. It seems likely to be the case for Chang. Noonan (2005) uses the term 'syncretism' to refer to situations where a form marks more than one relational function. Relational functions include both grammatical functions and location. Therefore, *tòʔ* exhibits syncretism.

Table 3-5 List of postpositions marking spatial cases

SEMANTICS	FORM
LOCATIVE (at / in a place)	*à*
ALLATIVE (to / towards a place)	*tòʔ*
ABLATIVE (from a place)	*kàʔ*
INESSIVE (inside a place)	*màːŋ*

Two postpositions can also occur one after the other. Noonan (2008) terms such instances as 'case stacking' where two or more case markers are needed because there is more than one reference point of the place. In (3), there are reference points indicating 'towards' and 'inside'.

(3) | *nàʃòw-pów* | *sì* | *kéj* | *hám* | *lák* | *kàʔ* | *áːt-tì-pú* |
|---|---|---|---|---|---|---|
| child-MASC | and | dog | together | cliff | ABL | fall-CAUS-REL |

tèj	***máːŋ***	***tòʔ***	*ʃáːt-láŋ-kɘj*
water	**INES**	**ALL**	land-AWAY-PST.AUX

'The boy and the dog who both fell from the cliff landed in the water'

3.5.2 Non-spatial cases

Postposition can also mark non-spatial cases. Table 3-6 shows a list of postpositions and their semantic meanings.

Table 3-6 List of postpositions marking non-spatial cases

SEMANTICS	FORM
COMITATIVE (in company with someone)	jùá
PURPOSIVE (for the purpose of)	ʃàŋà
INSTRUMENTAL (using something as a tool)	èj

The two examples below show how the non-spatial postpositions are used in texts.

(4) | *kéj* | *kɘj* | *sáːk* | ***jùá*** | *nàʃòw-pów* | *ʧɘ́ɯ-kò* | *láːŋ-kò* |
|---|---|---|---|---|---|---|
| dog | also | deer | **COM** | child-MASC | look-SIM | run-SIM |

háw-kɘj
go-PST.AUX

'The dog also went running along with the deer, looking at the boy.'

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(5) *hòpà*   *kéj-èj*   *hàw*   *tòʔ*   *kháj*   *sánów-pú*   **ʃàŋà**
    and   dog-agt   3sg   all   that.way   love-nom   **PURP**

    nàʃòw-pów   *khátòw*   *sé-kàj*
    child-masc   there   lick-pst.aux

    'And the dog licked the boy for showing him love.'

The form, *èj* marks not only instrumental but also ergativity (see §6.1.2 for case marking in grammatical functions). This pairing of instrumental and ergativity in syncretism has been widely attested primarily in the Bodic languages of the TB family by Noonan (2005).

3.6 Conjunctions

Conjunctions are words that are used to join words, phrases or clauses (Schachter 1985: 46). Table 3-7 shows conjunctions attested in the data.

Table 3-7 Conjunctions

ENGLISH GLOSS	FORM
and	*sì / hòpà*
but	*láwsìkàj*
while	*ʧìnèj*
when	*làtáŋ*

láwsìkàj is only attested at the start of the sentence but serves to connect the clause to the previous one in narrative text.

(6)   **láwsìkàj**   *hàwsì-èj*   *pùhèk*   *á-ʃàw*
    but   3DU-ERG   fruit   NEG-EAT.PST

    'But, they two did not eat the fruit.'

The conjunctions, sì and hòpà are used interchangeably to coordinate nouns as shown in (7).

(7) (a) *kéj* **sì** *nàʃòw-pów*   (b) *kéj* **hòpà** *nàʃòw-pów*
    dog **conj** child-MASC   dog **conj** child-MASC

    'dog and boy'   'dog and boy'

hòpà is also frequently found in the narrative texts to connect clauses, often indicating a connection of the following utterance to the one that has just ended such as in (8). However, the same cannot be said for *sì* as the latter can only coordinate nouns. In Ao, Coupe (2007)

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terms such constructions as "discourse connectives" where they serve the purpose of creating pragmatic structure in discourse.

(8) **hòpà**   khù   kíp-kə̀j
     and   head   get.jam-PST.AUX

     'And [the dog's] head got stuck [inside].'

làtáŋ 'when' and *ʧìnèj* 'while' introduce subordinate clauses.

(9) **làtáŋ**   pùhék-pù-ɲú-pów   khò   púlóŋ   kà   lót-kə̀j
     when   fruit-tree-AUG-MASC   this   tree.canopy abl   descend-PST.AUX

     'When the fruit owner came down from the canopy of the tree, …'

4 Noun Phrase & Nominal Morphology

A noun phrase serves as a core argument in A, S or O function or as an oblique argument (optional participants). Its head is a noun or pronoun. The structure of the noun phrase is as follows:

(pre-modifiers) noun (post-modifiers)

Pre-modifiers may be possessive pronouns and relative clauses. Possessive pronouns and relative clauses occur in complementary distribution. Post-modifiers include attributes, demonstratives and numerals. Demonstratives and numerals also occur in complementary distribution. Overall, the order of the modifiers is postulated as follows:

$$\left\{ \begin{array}{l} \text{possessive pronoun} \\ \text{relative clause} \end{array} \right\} \text{noun (attribute)} \left\{ \begin{array}{l} \text{demonstrative} \\ \text{numberal} \end{array} \right\}$$

Inflectional markings on the whole of the noun phrase are stipulated as the following:

Noun(-DIM)(-AUG)(-POW)(modifier)(-ERG)(-GEN)

Examples of noun phrases enclosed in brackets are shown in (10).

(10) *[lò:n   kòw-pów   mə̀t   khò-èj]   [khûn   jàŋ-pú]*
      goat   pull-NOM   person   this-ERG   hat   be.big-NOM

      há:n-àn   kí-téj-kə̀j
      wear-SEQ   stay-CONT-PST.AUX

      'The man who was pulling the goat was wearing a big cap.'

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The ergative marker, *-èj* and the genitive case marker, *-pú* (see §4.3 for genitive case marking) come at the end of the noun phrase. In nominal morphology, nouns can be inflected for diminutive, genitive, gender and augment. The order of these inflections in relation to the noun root has not been fully explored but the following noun structure is postulated:

$$\text{root} \left\{ \begin{matrix} \text{-AUG} \\ \text{-DIM} \end{matrix} \right\} \left\{ \begin{matrix} \text{-MASC} \\ \text{-FEM} \end{matrix} \right\}$$

The remaining sections of chapter 4 will describe nominal morphology.

4.1 Augmentative and diminutive

The augmentative marker *-ɲú* is used to mark nouns, expressing greater intensity in comparison to the diminutive marker, *-ʃòw*. *ɲú* itself has a lexical meaning of 'mother' and *ʃòw* is indexed as 'child'. These words have been grammaticalized to form bound morphemes that imply a sense of degree in size, e.g. *jùŋ-ɲú* 'river'; *jùŋ-ʃòw* 'stream'. The use of this overt opposition between 'mother' and 'child' to represent augmentative versus diminutive is attested in many languages spoken in East and Southeast Asia including ST languages (Matisoff 1992). The augmentative marker denotes femininity in kinship terms, e.g. *nóʃóɲú* 'older sister' (see §4.3 for gender case). It has also shown up in *pùhék pù-ɲú* (fruit tree-AUG) 'fruit tree owner', possibly indicating a sense of 'ownership'. However, further research is needed.

4.2 Gender

The masculine marker is *–pów*, e.g. *nàʃów-pów* (child-MASC) 'boy' with origins from *pów* 'father'. *-pów* is also used as a nominalizing suffix described in §4.4.

Contrastingly, the feminine marker is *-ɲú*. *-ɲú* as stated in §4.1 is also an augmentative marker grammaticalized from the word, *ɲú* 'mother'.

4.3 Genitive Case

-pú is used to mark genitive case, expressing a possessive relation between two nouns. It attaches itself to the end of the possessor noun and the possessee noun follows, e.g. *sá:k-èj-pú là:ŋ* (deer-ERG-GEN horn) 'deer's antlers'.

Possessive pronouns are also formed though the inflection of pronouns with *-pú*, e.g. *ŋɘ̀j-pú ʧɘ̀m* (1.SG.ERG-GEN house) 'my house'; *hàw-èj-pú ʧɘ̌m* (3.SG.ERG-GEN house) 'his house'.

4.4   Nominalizations

Nominalization is a derivational process in which something is turned into a noun (Comrie & Thompson 1985: 349). There are two nominalizing suffixes or nominalizers in Chang, *-pú* and *-pów*. They are marked on verb roots and thus, turn verbs into nouns. Note that *-pú* and *-pów* have been discussed earlier as a possessive marker (§4.3) and a masculine marker (§4.2) respectively. The multi-functional uses of *-pú* and *-pów* will be summarized in §4.4.2.

The use of *-pú* can turn a verb root into a noun as seen in (11).

(11)   **sàt-pú**   khò   pùhék   pù-ɲú-pów-èj   ʧ̃ĩ
       go.away-NOM   this   fruit   tree-AUG-MASC-ERG   TOP

       á-ŋè-kò
       NEG-know-SIM

       'That going away [of the boy] was not known by the fruit owner...'

In the narrative text, the language consultant was commenting how a boy in the Pear Story had stolen some fruits from the fruit owner and went away. The nominalized structure derived from a verb root with the nominalizing suffix, *-pú* is the head noun of the noun phrase. It functions exactly the same as a noun.

In Chang, the product of nominalization is not only confined to nouns. Modifiers of a noun phrases can also be derived. The many functions of nominalization including producing relative clauses have been well documented in other TB languages (see Coupe, 2007 for Ao; Watters, 2008 for Himalayish languages; Lapolla, 2008 for Rawang). Nominalizations as modifiers will be elaborated upon in the next section (§4.4.1).

4.4.1   Nominalizations as modifiers

The modifier-type of nominalization comes as a form of relativization in which the nominalized structure becomes of subordinate status. This is exemplified in (12a).

(12)   (a)   **lòːn**   **kòw-pów**   mə̀t   khò-èj
             goat   **pull-NOM**   person   this-ERG

       (b)   khûn   **jàŋ-pú**   háːn-àn   kí-téj-kə̀j
             hat   **be.big-NOM**   wear-SEQ   stay-CONT-PST.AUX

             'The man who was pulling the goat was wearing a big cap.'

There are two modifiers formed through nominalization in (12) and there are differences between the two. The modifier in (12b) is formed with *-pú*, unlike that in (12a) which uses *–pów*. Furthermore, (12b) follows the head whereas (12a) precedes the head. (12b) functions like an attribute. Such attributes modify the head noun and are derived from a verb root through the use of the suffix, *-pú* as seen in (12b) and (13). In the data, only verbs denoting states are nominalized with *-pú* to form attributes, as a post-modifier. Coupe (2007) refers to the attributes formed by nominalizing verbs in the Ao language as 'relativized attributes'.

(13)　　　*hàw-èj*　　　*ká:m*　　　***kóŋ-pú***　　　*ʧè*　　*tán-kə̀j*
　　　　　3SG-ERG　　　basket　　　**be.empty-NOM**　　　one　　set-PST.AUX

　　　　　'He placed an empty basket.'

In (13) above, the nominalized verb follows the noun as an attribute. But, it can occur before the head too as a relative clause, i.e. *kóŋ-pú ká:m* (be.empty-NOM basket) 'basket which is empty' is also possible. Whether it is 'the empty basket' or 'the basket that is empty', the meaning does not change much. However, in post-nominal attributes, only the roots of stative verbs are nominalized, such as in (12b) and (13). And, only *-pú* can be used as the nominalizing suffix.

Relative clauses will precede the head it modifies such as in (12a) and (14) and either *-pú* or *–pów* can be used as the nominalizing suffix. As the relative clause precedes the head, Chang exhibits externally-headed relative clauses. The head occurs in the matrix clause whereas the gapping strategy is deployed in the relative clause.

(14)　　　*kéj*　　*khò-èj*　　　***[jùk***　　　***ʧín-àn***　　　***phó-pú]***　　　*thúŋ*　　*khò*
　　　　　dog　　this-ERG　　　**frog**　　　**place-SEQ**　　　**keep-NOM**　　　vessel　　this

　　　　　tòʔ　　*lə̀m*　　　*ʧə́m-án*　　　*ʧə̀m-lá*　　　*ʃàŋà*　　*khù*　　　*á:t-tí-kə̀j*
　　　　　all　　smell　　sniff-UP　　　house-DAT　　BEN　　head　　fall-CAUS-PST.AUX

　　　　　'The dog inserted its head inside the vessel in which the frog was kept in order to sniff and look.'

In the relative clause of (14), the head noun in the relativized clause serves as an oblique argument. The role of the head noun within the relative clause is of concern here because there is an accessibility hierarchy to the noun phrases that can be relativized according to its function as stated in the following according to Comrie (1989: 154)

subject > direct object > indirect object > oblique > processor

The accessibility hierarchy works such that if a given position can be relativized in a language, then all positions to the left of the hierarchy should also be able to be relativized. That is, since the oblique argument can be relativized in Chang, all positions to the left should be able to be relativized. Relativization of the direct object can occur in Chang, e.g. hàwśi-èj láːp-pǔ jùk (3DU-ERG catch-NOM frog) "The frog that they caught". Relativization of the subject is shown in (12a). A bigger corpus is needed to seek out more examples.

4.4.2 -pǔ versus –pów

Other than being nominalizing suffixes, *-pǔ* and *–pów* each are also markers of various functions. Table 4-1 summarizes the comparison the two suffixes.

Table 4-1 -pǔ versus -pów

FUNCTIONS	*-pǔ*	*-pów*
nominalizations		
verb to noun	√	
verb to attribute	√	
mark relative clauses	√	√
mark genitive NPs	√	
mark masculine nouns		√
mark ordinals		√

The syncretic nature of these morphemes is not uncommon in TB languages. The particle *ve* in Lahu marks not only genitive constructions and relative clauses but also serves as a nominalizer (Matisoff 1972). In Written Tibetan, the suffix *–pa* has at least 4 uses: to serve an ergative function; to mark masculinity; to serve as a nominalizer or simply just "bulk-providing" without particular meaning or significance (Matisoff 1992: 322). In Chang, -pów also surfaces in àjpów 'much' in which it does not seem to function as any of the above in Table 5-1. Therefore the functions of the nominalizing suffixes need to be further looked into to discover more uses.

5 Verbal morphology

Verbs occur clause-finally, typical of TB languages in Nagaland with the exception of the Karenic languages and Bai (Matisoff 1991: 496) (see §6.1.1 for constituent order). Verbs in Chang function as the predicate but not as arguments. However, they can be used to derive

nouns or noun modifiers through nominalization, which results in the change of word class (§4.4).

The structure of a verb is explained in the following:

$$(\text{NEG-}) \; \textbf{root} \; (\text{-LEX}) (\text{-COLL}) \; (\text{-ASP}) \; (\text{-CAUS}) \; (\text{BEN}) \left\{ \begin{array}{c} \text{-CV} \\ \text{-TENSE} \\ \text{-NOM} \end{array} \right\}$$

1		2	3	4	5	6	7

The verb root forms the head of the predicate and is either monosyllabic or disyllabic. A verb root may be formed from the reduplication of a noun, e.g. *ʧɔ̃t* 'urine' → *ʧɔ̃tʧɔ̃t* 'urinate'. It is not capable for existing on its own as bare verb roots have not been attested in the corpus. Therefore, while positions 1 to 6 are optional, optional 7 is obligatory to be filled with either a converb, tense or nominalizing suffix. Nominalizing suffixes have been previously discussed in §4.4

The suffixes discussed here are inflectional morphology that do not change the word class of verbs with the exception of the nominalizing suffixes, which are discussed in §4.4.

5.1.1 Negative prefix á-

The negative morpheme, á-, prefixes onto the verb stem and serves as the most defining criterion for deciphering verbs in Chang. It has been attested in the corpus that the negative prefix can occur together with a converb suffix, -ko on the verb stem as shown in (15).

(15)	*hàw-éj*	*hàw-èj-pú*	*pùhék*	*ká:m*	*ʃɔ̃n-àn*	*phó-pú*
	3SG-ERG	3SG-ERG-GEN	fruit	basket	fill-SEQ	keep-NOM

	ʧèʔ	***á-kí-kò***	*hápɔ̃n-kɔ̀j*
	one	**NEG-STAY-SIM**	realise-PST.AUX

'He realised that one of his fruit baskets filled with fruits was missing.'

There are allomorphs of the negative prefix arising out of morpho-phonological processes. They have been discussed in §2.5.

5.1.2 Lexical suffixes

The term 'lexical suffix' is used by Coupe (2007: 298) in his grammar of Ao language to group at least seventeen suffixes in Ao that express 'lexically-oriented adverbial meanings'. I am applying this term to the three suffixes in Chang that appear to function in the same way

as those in Ao. These suffixes imply a relationship between the meaning it carries and the verb that it attaches to. A lexical suffix positions itself immediately to the right of the verb root in position 2. The three lexical suffixes are shown along with their glosses in Table 5-1. Coupe (2007: 298) suspects that lexical suffixes originated from compound verbs and later grammaticalized to become suffixes. With that, they are not only restricted to the compounds but can be used with more verb roots from different semantic classes.

Table 5-1 Lexical suffixes

GLOSS	SUFFIX
SEP (separate)	*-ɲín*
UP (ascend)	*-án*
AWAY	*-láŋ*

The lexical suffix, *-ɲín* expresses the end result of breakage by the action of the verb it attaches to. The same form occurs as in the lexical verb root of *ɲín-pú* (crack-nom) 'crack' and also forms part of the verb for *ʧíʔɲín-pú* (tear.NOM) 'tear'. In (16), the lexical suffix is used with the verb root *phə́t* 'hit' with an implication that the impact of the verb causes the vessel in the story to break. Therefore, although not attested in the corpus, the lexical suffix is likely to attach to verbs such as *kákjútà* 'collide' that can cause an impact to the patient.

(16) *hàw-éj-pú*   *khù*   *à*   *lòn-pú*   *thúŋ*   *khò*
       3SG-ERG-POSS   head   LOC   put.on-NOM   vessel   this

phə́t-ɲín-kə̀j
hit-SEP-PST.AUX

'That vessel, which its head was stuck in, was hit and shattered into pieces.'

The lexical suffix, *-án* implies a directional meaning of upwards. It is interesting to note that in (17) the combination of the verb *khàw* 'be bitter' and the lexical suffix entails the emotion of anger. The use of the directional lexical suffix somehow indicates that the bitter level in the person has risen up to a level that he feels angry.

(17)   *hàw-èj*   *àjpów*   ***khàw-án-kə́j***
          3SG-ERG   much   **be.bitter-UP-PST.AUX**

          'He was very angry.'

The lexical suffix, *-láŋ* is used in (18) with a directional meaning of 'away'.

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A sketch grammar of Chang

(18)   *nàʃòw-pów*   *sì*   *kéj*   *hám*   *lák*   *kàʔ*   *á:t-tí-pú*
       child-MASC   and   dog   together   cliff   ABL   fall-CAUS-REL

       tèj   *má:ŋ*   *tòʔ*   **ʃá:t-láŋ** -*kə̀j*
       water   INES   ALL   **land-away**-PST.AUX

       'The boy and the dog who both fell from the cliff landed in the water.'

5.1.3 Collective -júʔ

The suffix encodes collective activity and functions much like the English adverb 'together'. The lexical suffix is also found in the stems of verbs that require reciprocal action such as *ójú-pú* (quarrel-NOM) 'quarrel', *íkjú-pú* (joke-NOM) 'joke'; or verbs that results in two or more entities coming together such as *phə̀njú-pú* (connect-NOM) 'connect', *sówjú-pú* (mix-NOM) 'mix', *háwjú-pú* (meet-NOM) 'meet'. It is not known if the form *júʔ* can stand alone with an independent meaning.

(19)   *hàw-ɲú*   *ʃòŋ*   *khàw-án-pú*   *hàw*   *ʧúŋkàʔ*   *pì-ʧúŋ*
       3SG-AUG   group   be.bitter-UP-REL   3SG   near   fly-DUR

       tà:n-júʔ-kò   *kí-kə̀j*
       pass.by-COLL-SIM   stay-PST.AUX

       'The swarm of angry bees [belonging to the hive] were flying together past nearby him.'

(20)   *hòpà*   *hàwsí*   **hám-èj**   *àjpów*   **ólín-júʔ-kò**   *thúŋ-tów*   *à*
       and   2DU   **together-ERG**   much   **enjoy-COLL-SIM**   vessel-there   LOC

       tʃĭn   *kéj*   *sì*   *nàʃòw-pów*   *hàwsí-èj*   *ʧə̌u-kə̀j*
       place   dog   and   child-MASC   2DU-ERG   look-PST.AUX

       'And the two of them, together, were enjoying looking at the frog after placing it in the vessel.'

In (20), collectivity is also indicated by *hám* 'together' which acts like a modifier to the head noun and carries the ergative marker. It can also group noun phrases together, e.g. *nàʃòwpów sì kéj hám* 'child and dog together'. Therefore, collectivity in Chang can be implied through the collective suffix on the verb stem, -*júʔ* or the noun modifier, *hám*.

5.1.4 Aspectual suffixes

Aspect deals with the internal temporal shape of situations (Payne 1997: 234; 238). Two aspectual suffixes are found to occupy in position 4 of the verb stem. Other aspect suffixes

waits to be attested in a larger corpus. They are the continuative aspect and the repetitive aspect.

5.1.4.1 Continuative aspect – *téj / tâŋ*

The continuative aspect refers to a progressive, dynamic process (Payne 1997: 240). The continuative aspect appears in two forms, *-téj* and *-tâŋ*. The origins of both or whether they are related needs further analysis.

(21) | *nàʃòw-pów* | *khò-èj* | *jùk* | *khátòw* | **ŋá-táŋ-léj-kə̀j** |
|---|---|---|---|---|
| child-MASC | this-ERG | frog | there | **call-CONT-?-PST.AUX** |

'The boy kept on calling for the frog.'

In (21), the continuative suffix is followed immediately with an unknown suffix *-léj*. The latter has the same form as the verb root, *léj-pú* (lead-NOM) 'lead'. Further analysis beyond the scope of this thesis is needed.

(22) | *khə́nèj* | *mə́t* | *ʧè-èj* | *pùhə́k* | *làːk* | *lè-àn* | **kí-téj-kə̀j** |
|---|---|---|---|---|---|---|
| there | CLASS | one-ERG | fruit | field | cultivate-SEQ | **exist-CONT-PST.AUX** |

'There was a man was cultivating a field of fruit there.'

The other form, *-téj* appears in existential clauses. Every instance of it in the corpus follows immediately behind the existential verb root, *kí* 'exist'.

5.1.4.2 Repetitive aspect *-ŋə́j*

The repetitive marker denotes a repetition of the verb, i.e. the action is being carried out again and again. It may denote that the activity is repeated for a known or unknown number of times. In (23), it is not clear how many times the action is repeated.

(23) | *hòpà* | *hàwə̀n* | *pə́ntòw* | *lów-àn* | *pùhék* | *khók-àn* | *áp-pú* |
|---|---|---|---|---|---|---|
| and | 3PL | all | come-SEQ | fruit | overturn-SEQ | scatter-NOM |

khò	*káːm*	*khə́tòw*	**hé-ŋə́j-kùʔ-kə̀j**
this	basket	there	**grasp-RPET-BEN-PST.AUX**

'They all came and repeatedly picked up the fruit that had turned over and scattered from the basket for the boy.'

In (24), the use of the repetitive suffix denotes that the action was done repeatedly with each time only stealing a fruit, instead of stealing three fruits all at once.

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(24) *khûn*   *ʧúŋ-àn*   *háw-kùʔ-pów*   *nàʃòw-pów*   *khò-èj*   *nàʃòw-pów*
  hat hold-SEQ go-BEN-NOM   child-MASC this-ERG child-MASC

  khò-èj-pú *pùhék* *kàʔ* *pùhék* *pɜm* *sɜm* ***kók-ŋɜ́j-kɜ̀j***
  this-INST-GEN fruit ABL fruit class three **steal-RPET-PST.AUX**

  'The boy who picked up the hat and took it to return stole 3 pieces of fruits were stolen from the fruits of the boy.'

5.1.5 Causative suffix - tí

The causative suffix functions to increase the number of arguments that can be used with a verb (Payne 1997: 176). In Chang, the suffix allows an intransitive verb to be used with two core arguments instead of one without a change of verb or to the verb root. The causative suffix, *-tí* occurs in position 5, which is to the right of lexical, reciprocal and aspectual suffixes but to the left of benefective in position 6 and either tense, converb or the nominalising suffixes in position 7. The use of the causative suffix is illustrated in (25) and (26).

(25) *hòpà* *sájkɜ́l* *phón-àn* ***lò-tí-kùʔ-kɜ̀j***
  and   cycle   lift.up-SEQ **stand-CAUS-BEN-PST.AUX**

  'And [they] lift up and made the bicycle stand for him.'

In (26), the boy becomes the patient of the intransitive verb, *á:t* 'fall' even though the agent was not mentioned. However, the previous line in the narrative mentioned an owl emerging and the context allows for the reader to draw that the owl is the causer or the agent of the cause. The causer would take on the ergative marking (see §6.1.2 for case marking). However, in both (25) and (26), the causer does not appear. The causee, which undergoes the cause, in both (25) and (26) takes zero marking, much like a direct object. The causee which would be the subject of the non-causative form cannot have the ergative marker because languages typically cannot tolerate predicate with more than one subject (Comrie 1985: 335).

(26) *hòpà* *nàʃòw-pów* *khò* *ʧáŋ-àn* ***á:t-tí-kɜ̀j***
  and   child-MASC   this push-SEQ **fall-CAUS-PST.AUX**

  'And the boy was pushed and made to fall [by the owl]'

In the causativization of transitive verbs such as in (27), the number of arguments involved increases to three. The causer supposedly is marked like the subject. The causee is marked with a dative, like an indirect object and the direct object remains unmarked.

(27) hòpà^{ll}   hàw-lá   sájkə́l   khò   **ʧúŋ-tí-àn**

and   3sg-dat   cycle   this   **hold-caus-seq**

'And [they] made him hold the bicycle…'

5.1.6 Benefective, -kùʔ

The benefective suffix occurs in the penultimate position of the verb stem, to the right of all other suffixes and only preceding the tense markers, converb suffixes or nominalising suffix occurring in last position. Given the same form, the suffix has its origins from the verb root, *kùʔ* 'give'. It means that the action of the verb is carried out by the core argument for the benefit of another animate noun and functions like the English 'for'. The use of the suffix is demonstrated in (23) and (25) above.

5.1.7 Converb suffixes

A converb serves as a clause linking device and is typically marked by an affix on the verb stem (Coupe 2006a). Coupe (2007) finds at least 10 suffixes in the Ao language that serve a purpose of linking multiple sequences of verbs together and labels them as converb suffixes. There are three such suffixes in Chang in the data that allow for linkage of verbs and they are listed in Table 5-2.

Table 5-2 Converb suffixes

GLOSS	FORM
SEQ (sequential)	-àn
SIM (simultaneous)	-kò
CV (converb)	-ʧúŋ

As a converb suffixes indicate the end of a converb and the start of another verb which follows immediately, it never occurs in main verbs. The simultaneous and sequential suffixes are illustrated in (28) and (29).

(28) *jáksá*   *nàʃòw*   *mə́t*   *ʧèʔ*   *sájkə́l*   *ʧúŋ-àn*

woman   child   class   one   cycle   hold-SEQ

lów-kò   *kí-téj-kə̀j*

come-SIM   stay-CONT-PST.AUX

'There was a girl coming, riding a bicycle.'

The suffix -ʧúŋ looks like a converb suffix as seen in (29). It occurs much less frequently than the other two converb suffixes. More research is needed to determine its semantic meaning.

(29) *kéj*   *khò-èj*   *nàwháp*   *khátòw*   **tóm-ʧúŋ**   **á:ŋ-àn**
      dog   this-ERG   beehive   there   **jump-CV**   **climb-SEQ**

      làm   **ʧə́m-àn**   *ʧə́ɯ-kə̀j*
      smell   **sniff-SEQ** look-PST.AUX

      The dog jumped repeatedly, sniffing and looking at the beehive.

5.1.8 Tense

Tense refers to the sequence of events with the reference point usually at the moment of speech (Payne 1997: 234; 236). There is a distinction between the past and the present tense in Chang. The future tense (if any) needs to be looked into in further research.

Tense is marked on the final position of the verb stem. Tense, converb and nominalizing suffixes occurs in complementary distribution in that position. The tense marker is also a good indication to the end of the verb clause in a series of verb constructions and thus, the end of the sentence. Past tense is generally unmarked, e.g. ká:m à há:k-àn phò (basekt LOC pour-SEQ keep.pst) 'poured [the fruits] into a basket and kept them'. I have glossed -kə̀j as a past tense marker because it occurs only at the end of utterances such as in (25), (26) and (29). Whether past tense is unmarked or marked with -kə̀j needs further analysis. The present tense marker is *-tà*, as shown in the substitution frame for eliciting lexical words in the word list, *ŋə́j* _____ *làw-tá* (1SG.ERG _____ say-PRES) 'I say _____'. The categories of tense and modality need further analysis.

6 Grammatical Functions

A simple clause structure in Chang consists of a predicate and one or two core arguments depending on the type of the predicate, intransitive or transitive. However, this does not tell grammatical functions, i.e. who does what to whom. Andrews (1985: 71) conceives that there are three possible ways to encode grammatical functions: constituent order, case marking and cross-referencing (agreement). There is no evidence in Chang that cross-referencing is employed to code grammatical functions. Thus, the remaining two techniques, constituent order and case marking are discussed in §6.1.1 and §6.1.2.

6.1.1 Constituent Order

All TB languages with the exception of the Karenic languages and Bai have the order of Subject-Object-Verb (SOV) syntactically (Matisoff 1991: 496). LaPolla (1995: 215) gives the order of Agent-(Recipient)-Patient-Verb based on semantic roles. The agent acts with purpose, performing and controlling an action (Payne 1997: 49). The patient, on the other hand, is the unmarked semantic role, prototypically undergoing a physical change in state (Payne 1997: 50; 51). With contrast to an agent, a patient does not act with volition. The agent often correlates with the subject and the patient to the object.

Chang has exhibits the SOV constituent order typical of the TB languages.

(30)   *hàw-èj*   *ámpóŋ*   *pù*   *ʧòŋ-pów*   *ké-àn*   *kí-téj-kàj*
          3SG-ERG   mango   tree   most-NOM   plant-SEQ   stay-CONT-PST.AUX

          'He planted a majority of mango trees.'

However, the above constituent order is typical and can be considered as the default construction, there are instances where the order is reshuffled between the noun phrases to give Object-Agent-Verb (OAV) order as in (31). By moving to the initial position, this has a topicalizing effect on the patient by making it more prominent. The delivery of the utterance is somehow equitable to a passive voice. Thus, using the passive voice in the English translation is most apt. The A argument of the transitive verb or the agent may also be left out, leaving only the O argument of the transitive verb or patient as in (32).

(31)   *sát-pú*   *khò*   *pùhék*   *pù-ɲú-pów-èj*   *ʧí*
          go.away-NOM   this   fruit   tree-AUG-MAS-ERG   top

          á-ŋè-kò
          NEG-know-SIM

          'That going away [of the boy] was not known by the fruit owner…'

(32)   *hòpà*   *nàʃòw-pów*   *khò*   *ʧáŋ-àn*   *áːt-tí-kàj*
          and   child-MASC   this   push-SEQ   fall-CAUS-PST.AUX

          'And the boy was pushed and made to fall [by the owl]'

The omission of the A argument in (32) happens because the core argument has been explicitly introduced in the text previously. Nevertheless, the verb phrase always occurs finally.

6.1.2 Case Marking

Grammatical functions can be assigned according to how core arguments are marked in the language. Dixon (1994) discusses marking patterns that are driven by both semantics and syntax. In nominative-accusative languages, the S argument of an intransitive verb and the A argument of a transitive clause are marked the same way. Thus, the O argument is given a marking different from the other two. In ergative-absolutive languages, the S argument of an intransitive clause is marked the same way as the O argument of a transitive clause which is different from the A argument of a transitive clause.

In Chang, there is a marker *-èj*, occurring on the A argument of a transitive clause as seen in (29) above. This ergative marker is isomorphic with the instrumental marker (see §3.7.2). As for O arguments, they are generally unmarked such as shown in (30) above. However, O arguments of surface-contact verbs (see §3.2.3) are marked instead with a dative *-lá*.

(33) *jípùk*   *ʧè*ʔ   *khə́njə́t*   *kàʔ*   *lók-ʧúŋ*   *lóŋ-kə̀j*
      rat   one   hole   ABL   pop.out-DUR   emerge-PST.AUX

      hòpà   **nàʃòw-pów-lá**   *kùŋ³³*   *à*   *ták-kə̀j*
      and   **child-MASC-DAT**   nose   LOC   bite-PST.AUX

      'A rat emerged from the hole.'
      'And bit the child on the nose.'

The use of dative or locative marker to mark O arguments has also been attested in other TB languages such as in the Bodish languages (LaPolla 1992: 4). In Classical Tibetan, a Bodo language, "contact verbs" as defined by DeLancey (2003: 259) requires locative marking as well.

(34) **hàwsì**   *jə́p-kə̀j*
      2DU   sleep-PST

      'The two of them slept.'

Whether the language is nominative-accusative or ergative-absolutive depends on the marking (if any) found on the S argument of an intransitive clause. In Chang, the S argument of an intransitive clause is unmarked as in (34), much like the O arguments of transitive clauses in the language. This puts the S argument of an intransitive clause and the O argument of an intransitive clause as having the same morpho-syntactic treatment in marking

grammatical functions. Whereas, the A arguments of transitive clause are given ergative treatment marked with *-èj*.

7 Conclusion

This thesis seeks to provide a preliminary record of a sketch grammar of Chang.

The phonology chapter (section 2) has provided a phonemic inventory, allophonic rules and phonotactics in minimal redundancy and structurally relevant way. The chapter on word classes give insights to the vigesimal system of counting round numbers in the Konyak group. The chapter on noun phrase and nominalizations show that nominalization play a big role in Chang and also, other TB languages. The chapter on verbs and verb morphology shows that the verb stems are complex and highly agglutinative putting together an extensive arrangement of suffixes. Finally, the chapter on grammatical functions describes the ergative case marking system in Chang.

As Mogul (2006) says with all sketch grammar, it needs constant revising and allowance for more in-depth analysis. The limitation of working with texts is that not all types of constructions I wish to verify are available and therefore, this sketch grammar should be taken as tentative. Further studies are needed to correct and improve this first sketch.

References

Andrews, A. (1985). The major functions of the noun phrase. In T. Shopen (eds.) *Language typology and syntactic description, Vol. I: Clause structure*, 62–154. Cambridge: Cambridge University Press.

Burling, R. (1982). The Sal languages. *Linguistics of the Tibeto-Burman Area*, 7(2): 1-31.

Burling, R. (2003). The Tibeto-Burman Languages of Northeastern India. In G. Thurgood & R. J. LaPolla (eds.) *The Sino-Tibetan Languages*, 169-191. London & New York: Routledge.

Burling, R. & Phom, L. A. (1998). Phom phonology and word list. *Linguistics of the Tibeto-Burman Area*, 21(2): 13-42.

Burling, R. & Wangsu, M. (1998). Wancho phonology and word list. *Linguistics of the Tibeto-Burman Area*, 21(2): 43-71.

Chao, Y. R. (1930). A system of tone-letters. *Le Maître Phonétique,* 45: 24–27

Comrie, B. (1985). Causative verb formation and other verb-deriving morphology. In T. Shopen (ed), *Language Typology and syntactic description, vol. III: Grammatical categories and the lexicon*, 309-348. Cambridge: Cambridge University Press.

Comrie, B. (1989). Language Universals and Linguistic Typology, 2nd edition Oxford: Blackwell.

Coupe, A. R. (2003). *A phonetic and phonological description of Ao: a Tibeto-Burman language of Nagaland, north-east India*. Canberra: Pacific Linguistics.

Coupe, A.R. (2006a). Converbs. In K. Brown (ed), *Encyclopedia of languages and linguistics*, *Vol. 3,* 2nd edition, 145–152. Oxford: Elsevier.

Coupe A. R. (2006b). Typological features of prosody in 3 Tibeto-Burman languages of Nagaland. Conference paper at Australian Linguistics Society Annual Conference 2006

Coupe, A. R. (2007). *A grammar of Mongsen Ao*. Berlin: Mouton de Gruyter.

Crystal, D. (1980). *A first dictionary of linguistics and phonetics*. Boulder, CO: Westview.

Delancey, S. (1985). Etymological notes on Tibeto-Burman case particles. *Linguistics of the Tibeto-Burman Area*, 8(1): 59-77.

Dixon, R. M. W. (1994). *Ergativity*. Cambridge: Cambridge University Press.

Erdican, A. I. (2003). *Chang – English, English – Chang Dictionary*. New Delhi: Prestige Books

Fillmore, C. J. (1970). The Grammar of hitting and breaking. In C. J. Fillmore (ed) *Form and Meaning in Language Vol. 1: Paper on Semantic Roles*, 123-139. Standford: CSLI Publications

Hutton, J. H. (1929). in Mukhopadhyay (1987) (eds) *Chang Language: Grammar and Vocabulary of The Language of the Chang Naga Tribe*. New Delhi: Gian Publishing House

LaPolla, R. J. (1992). 'Anti-ergative' marking in Tibeto-Burman. *Linguistics of the Tibeto-Burman Area,* 15(1): 1-9.

LaPolla, R. J. (1995). 'Ergative' marking in Tibeto-Burman. *Senri Ethnological Studies*, 41: 189–228.

LaPolla, R. J. (2004). On nominal relational morphology in Tibeto-Burman. In Y. Lin, F. Hsu, C. Lee, et al. (eds) Studies on Sino-Tibetan Languages, papers in honor of Professor Hwang-cherng Gong on his seventieth birthday, *Language and Linguistics Monograph Series Number W-4*, 43–73. Taipei: Academia Sinica.

LaPolla, R. J. (2008). Nominalization in Rawang. *Linguistics of the Tibeto-Burman Area*, 31(2): 44-65.

Lewis, M. P. (ed) (2009). Ethnologue: Languages of the World, 16th edition. Dallas, Tex.: SIL International. Retrieved October, 2, 2011 from http://www.ethnologue.com/show_language.asp?code=nbc

Matisoff, J. A. (1972). Lahu nominalization, relativization and genitivization. In Kimball, J. (ed.) *Syntax and Semantics I*, pp. 237–257. New York: Seminar Press.

Matisoff J. A. (1991). Sino-Tibetan linguistics: present state and future prospects. *Annual Review of Anthropology,* 20: 469–504.

Matisoff, J. A. (1992). The Mother of All Morphemes: augmentatives and diminutives in a real and universal perspective. In M. Ratliff and E. Schiller (eds.), *Papers from the First Annual Meeting of the Southeast Asian Linguistics Society*, 293-349. Arizona State University, Program for Southeast Asian Studies.

Matisoff, J. A. (1995). Sino-Tibetan numerals and the play of prefixes. *Bulletin of the National Museum of Ethnology (Osaka) [Kokuritsu Minzokugaku Hakubutsukan Kenkyuu Hookoku],* 20(1): 105-252.

Mayer, M. (1969). *Frog, where are you?* New York: Dial Books.

Mosel, U. (2006). Sketch grammar. In J. Gippert, N. Himmelmann & U. Mosel (eds.) *Essentials of language documentation*, 301-309. Berlin: Mouton de Gruyter.

Noonan, M. (2005). Patterns of Development, Patterns of Syncretism of Relational Morphology in the Bodic Languages. Paper presented at the International Conference on Historical Linguistics, Madison.

Noonan, M. (2008). Case-compounding in the Bodic languages. In G. Corbett & M. Noonan (eds) *Case and Grammatical Relations*, 127-147. Amsterdam: John Benjamins.

Payne, T. E. (1997). *Describing Morphosyntax: A Guide for Field Linguists*. Cambridge: Cambridge University Press.

Robins, R. H. (1964). *General linguistics: An introductory survey*. London: Longmans.

Schachter, P. (1985). Parts-of-speech systems. In T. Shopen (eds). *Language typology and syntactic description; Vol. 1: Clause Structure,* 3-61. Cambridge: Cambridge University Press.

Shafer, R. (1955). Classification of the Sino-Tibetan Languages. *Word,* 11(1): 94–111.

Wallace, C. (1980). (ed) *The Pear Stories: Cognitive, Cultural, and Linguistic Aspects of Narrative Production*. Norwood, New Jersey: Ablex

Watters, D. (2008). Nominalization in the Kiranti and Central Himalayish languages of Nepal. *Linguistics of the Tibeto-Burman Area*, 31(2): 1-43