

Predication, reference and  
modification: Major word  
classes in Bumthang, a  
Tibeto-Burman language

Bachelor of Arts (Honours in Language Studies)

Australian National University

Naomi Peck

October 2017

This thesis is submitted in partial fulfilment of the requirements for the degree of Bachelor of Arts (Honours) in Language Studies, College of Arts and Social Sciences.

Parts of this thesis have previously been submitted as assessment for coursework relating to the completion of Honours in Language Studies at the Australian National University.

Substantial parts of Chapter 1 and 2 were submitted as a final assessment for LING4009: Selected Topics in Methodologies for Researching Language. Data analysis in Chapter 4 borrows from work submitted in LING4011: Selected Topics in Theory and Analysis in Linguistics.

I hereby declare that, except where it is otherwise acknowledged in the text, this thesis represents my original work. Any mistakes remain my own.

All versions of the submitted thesis (regardless of submission type) are identical.

## Acknowledgements

There are many people that I would like to thank for coming along the journey of preparing my thesis with me, and I will likely forget some of them.

Firstly, I would like to thank my mentor and unofficial supervisor, Ass. Professor Mark Donohue. He has been an invaluable help in both my personal and professional life, helping me both with life and linguistic problems alike. Thank you for introducing me to Bumthang and being right there on this journey with me, even when life got difficult for both of us. I hope to continue working together with you for years to come.

Next, I would like to thank my official supervisor, Professor Jane Simpson. Thank you for agreeing to supervise me when my situation became precarious and I hope learning about Bumthang has been interesting for you, despite my sometimes-unclear explanations! Your advice has kept me from many a misstep and always kept me on my toes! Thank you as well to Ass. Professor I Wayan Arka who kindly stepped in to officially supervise me for a semester while Jane was on sabbatical.

I would also like to extend thanks to all the people who have helped in my analysis of Bumthang, both past and present. Firstly, to Trom and Yukamo who have been with me for every step, including Honours this year – you guys are the best. Thank you to Bonnie, Naijing and Catherine who took Field Methods with us in 2015; and thank you to the previous cohort of Bumthang-ers, Ginny, Tom and Donna, for helping light Mark's flame and providing such good data for us to use. Thank you to Flash and Tinkel for being such good linguistic distractions. Most importantly, thank you to Dorji Wangchuck and his family – he has been the best consultant that anyone could ask for, and I wish you happiness with your whole family now in Canberra.

Thank you to my friends and colleagues in Canberra for keeping me sane. Josh – although you donated to charity to be in here, you would have been anyway. Thank you for putting up with my non-responsiveness and my general weirdness. Hannah and Christine – I don't think you were expecting to be in here, but you guys have always been so forgiving of my faults and so supportive and I really have appreciated it. Thank you to my team at Language Diversity at ANU who have been fighting the good fight since 2016, and to my colleagues at Sidaros McDonalds, who have always been supportive.

I'd also like to acknowledge the support I have received from the Wurm Fund, which has helped pay for elicitation sessions with Dorji, and from the Centre of Excellence for the Dynamics of Language.

Finally, I would like to thank my parents. I was only able to study at ANU thanks to your generosity and I don't think any of us has regretted that decision since. I hope to be able to bring you to Bhutan someday.

## Abstract

In this thesis, I investigate the word class system in Bumthang, a Tibeto-Burman language from central Bhutan. Word classes form a fundamental part of basic linguistic analysis, as tasks like writing phrase structure rules or positing derivational affixes require assumptions about how words in a language are organised. Recent work on word classes has been typologically orientated, with discussion surrounding cross-linguistic comparison and organisation of word class systems found worldwide. As such, my thesis will give insights into the structure of word class systems in the Himalayas and how they work.

Using morphosyntactic distribution, I find that there is evidence for common cross-linguistic word classes such as nouns, verbs and adjectives in Bumthang. However, while verbs are easily definable morphologically at the word level, nouns are instead defined syntactically at the phrase level. Furthermore, adjectives are clearly derived from verbs but are more nominal in their distribution. All three classes can be further divided into subclasses, which have restricted morphosyntactic distribution. The status of the three major word classes in Bumthang allows us to uncover language-internal regularities and compare cross-linguistic coding strategies.

## Contents

Acknowledgements.....	ii
Abstract.....	iii
Table of Figures.....	vii
Glossary.....	viii
1. Introduction .....	1
1.1 Bumthang.....	3
1.1.2 Phonology .....	3
1.1.2 Morphosyntax.....	5
1.2 Data .....	6
1.3 Organisation of Thesis.....	7
2. Theories.....	8
2.1 The Word .....	8
2.2 Wordhood in Bumthang .....	10
2.3 Word Classes.....	12
2.4 Defining Word Classes .....	13
2.5 Theories of Word Classification .....	15
2.6 Word Classes in the Himalayas .....	20
2.7 Methodology.....	21
3. First Pass .....	23
3.1 Function of Predication.....	25
3.1.1 Actions.....	25
3.1.2 Objects .....	27
3.1.3 Properties.....	28
3.1.4 Summary .....	30
3.2 Function of Reference.....	30
3.2.1 Objects .....	30
3.2.2 Actions.....	32
3.2.3 Properties.....	33
3.2.4 Summary .....	34
3.3 Function of Modification.....	35
3.3.1 Actions.....	36
3.3.2 Objects .....	36

3.3.3 Properties.....	37
3.3.4 Summary .....	38
3.4 Assessing Markedness across Semantic Classes .....	39
4. Deeper Look .....	41
4.1 Verbs .....	41
4.1.1 Morphosyntactic Marking.....	41
4.1.1.1 Verbal Suffixes .....	41
4.1.1.2 Verbal Prefixes .....	45
4.1.1.3 Other affixes.....	47
4.1.2 Defining non-action words.....	48
4.1.2.1 Action Words .....	48
4.1.2.2 Non-action Words.....	49
4.1.2.2.1 Inchoative-Causative Verbs.....	49
4.1.2.2.2 Experiencer Verbs .....	50
4.1.2.2.3 Comparative Verbs.....	51
4.1.2.2.4 Copulas.....	52
4.1.3 Conclusion.....	53
4.2 Nouns .....	54
4.2.1 Objects and Non-Objects .....	55
4.2.2 Co-occurrence .....	55
4.2.2.1 Determiners .....	56
4.2.2.2 Possessives.....	57
4.2.2.2.1 Compounds .....	57
4.2.2.3 Numerals.....	58
4.2.2.4 Adjectives.....	59
4.2.2.5 Relative Clauses .....	60
4.2.2.6 Quantifiers .....	60
4.2.2.7 Phrase Structure .....	61
4.2.3 Case.....	61
4.2.3.1 Genitive .....	62
4.2.3.2 Ergative .....	63
4.2.3.3 Headless Noun Phrases.....	64
4.2.4 Expanding the definition.....	65
4.2.5 Conclusion.....	66

4.3 Adjectives .....	67
4.3.1 Properties and non-properties .....	68
4.3.2 Subclasses .....	69
4.3.2.1 'Na' class .....	69
4.3.2.2 'La' class .....	70
4.3.2.2.1 The affix -la.....	71
4.3.3 Distinguishing adjectives.....	73
4.3.3.1 Adjectives versus Verbs .....	73
4.3.3.2 Adjectives versus Nouns .....	73
4.3.3.3 Comparatives and Superlatives .....	74
4.3.4 Conclusion.....	78
4.4 Conclusion.....	79
5. Conclusion.....	81
Appendix: Action Words .....	83
6. References .....	87

## Table of Figures

Figure 1	Bumthang vowel inventory	3
Figure 2	Bumthang consonant inventory	4
Figure 3	Chomskyan word classification	16
Figure 4	Langacker's word classification	17
Figure 5	Croftian word classification	19
Figure 6	Word class descriptions in and near Bhutan	21
Figure 7	Characteristics of prototypical semantic classes	23
Figure 8	Prototypical semantic class members	25
Figure 9	Predication in Bumthang	30
Figure 10	Reference in Bumthang	35
Figure 11	Modification in Bumthang	39
Figure 12	Semantic classes and prototypical functions in Bumthang	40
Figure 13	TAME affixes on action words	42
Figure 14	Verbal inflections in Bumthang	44
Figure 15	Negative TAME paradigm	46
Figure 16	Bumthang determiners	56
Figure 17	Bumthang noun phrase	61
Figure 18	Bumthang adjectives	69
Figure 19	'la' adjective endings	71



## Glossary

1	first person	PTNMZ	patientive nominaliser
2	second person	Q	question marker
3	third person	QUOT	quotative
ABL	ablative	RED	reduplication
ABS	absolute	REL	relativiser
ALL	allative	SEQ	sequential
APPROX	approximative marker	SG	singular
CAUS	causative	SPEC	specifier
CL	classifier	SUP	superlative
COM	comitative	TAG.Q	tag question marker
COMP	comparative marker	UNIV	universal quantifier
COND	conditional	VOL	volitional
COP	copula		
DAT	dative		
DET	determiner		
DIS	distal		
EMPH	emphatic		
EQ.COP	equative copula		
EQ.Q	equative question marker		
ERG	ergative case		
EVID	evidentiality marker		
GEN	genitive		
IMM	immediate		
IMP	imperative		
INDF	indefinite relativiser		
INF	infinitive		
INSTR	instrumental		
IPFV	imperfective		
IRR.I	impersonal irrealis		
IRR.P	personal irrealis		
LA	<i>-la</i> affix		
LMNZ	locative nominaliser		
LOC	locative		
NEG.NP	non-perfective negator		
NEG.P	perfective negator		
PFV.I	impersonal perfective		
PFV.N	neutral perfective		
PFV.P	personal perfective		
PL	plural		
PNMZ	pronominaliser		
PRFM	performative		
PROX	proximate		

## 1. Introduction

This thesis will investigate major word classes in Bumthang from both a cross-linguistic and functional perspective, and a language-internal morphosyntactic perspective to determine which categories are relevant for the language. The major word classes of nouns, verbs and adjectives are commonly found in language descriptions and are tied to semantic concepts which are claimed to be universal (e.g. Croft 1990, Haspelmath 2012). Furthermore, word classes in the Himalayas have not traditionally been well described. This description of word classes will help to compare Bumthang to other languages in a manner accessible to typologists, as well as provide a detailed morphosyntactic description of word classes within the language itself.

Categorisation is a skill which is innate to all animals. The ability to distinguish friend from foe and prey from predator is one which can make the difference between life and death. This process requires perceptual information, which is examined to find meaningful differences between two or more items. The act of categorisation is also endlessly flexible, as we can create categories and modify them at will.

Humans use language to create categories to interpret the world. In turn, linguists categorise aspects of language to capture its organisation (Taylor 2003). For example, phonology investigates the meaningful differences between phones in a language, which implies speakers of languages make distinctions between groups of sounds and categorise them accordingly.

Categorisation and classification of language is not limited to just linguists. Many cultures have a rich tradition of folk linguistics, with knowledge of areally-specific lexical terms or speech patterns common across the world. Language-internally, there is some

knowledge about how some words differ; whether that be a morphosyntactic difference or etymological.

What I will be discussing in this thesis is one act of classification which both linguists and laypeople perform: categorising words into word classes. I will specifically be doing this for Bumthang, a Tibeto-Burman language spoken in central Bhutan by approximately 30,000 people.

Bumthang has been previously described in Michailovsky and Mazaudon (1994), van Driem (2015 [1995]) and Donohue and Donohue (2016). It forms part of a 'Greater Bumthang' dialect chain, which includes Kurtöp to the north-east (described in Hyslop (2017)) and Khengkha to the south (van Driem 1994:91).

Four main dialects of Bumthang have been established – Jakar, Chumey, Ura and Tang – each spoken in a main valley in the region. The Ura dialect is regarded as the outlier of the four dialects, with noticeably different verbal endings (van Driem 2015 [1995]) and a highly complicated tonal system (Mark Donohue, personal communication).

Despite the previous work on the language, none has dealt in depth with the word classes extant in the language. Many Himalayan languages have at least a chapter devoted to word classes in their grammar but no similar work has been done for Bumthang.

Through a thorough investigation of the word class system in Bumthang, I hope to provide a clear illustration of how words are organised and which distinctions are relevant to speakers of the language. This will help inform typological discussions of word classes in the Himalayas and beyond; and help as a resource in the analysis of word classes of nearby languages.

## 1.1 Bumthang

Bumthang is a Tibeto-Burman language spoken mainly in the four valleys of central Bhutan by around 30,000 people. It is part of the East Bodish family (van Driem 2001:828), along with its closest relations, Kurtöp and Khengkha (van Driem 1994). This section will briefly describe the phonology of the language and its current Roman orthographic system<sup>1</sup> to enable a clearer understanding of the examples used in the thesis. As the content of this work is largely morphosyntactic in nature, this section will only have a few notes on the syntax of Bumthang.

### 1.1.2 Phonology

Bumthang has a phonemic inventory of 7 vowels and 26 consonants. Figure 1 details the vowel inventory of Bumthang, with the relevant orthographic realisation in brackets when it differs from the IPA. The high-mid back vowel is not attested in lexical words but is still contrastive. Six diphthongs are found in the language: *ai* [əj], *ae* [ej], *oi* [ɔi], *ao* [eɔ], *ui* [ui] and *ei* [ei].

	Front	Back
High	i	u
High-Mid	e (é)	o (ó)
Low-Mid	ɛ (e)	ɔ (o)
Low		ə (a)

Figure 1: Bumthang vowel inventory

---

<sup>1</sup> This orthographic system has been devised by myself and fellow researchers (including Mark Donohue and Thomas Wyatt) at the Australian National University for working on Bumthang, in collaboration with our consultant. It is not our intention that this it be used by the wider community, as we are also currently devising a Tibetan-based writing system which we feel is more appropriate. At the time of writing, Bumthang remains primarily a spoken language.

A limited system of vowel harmony is present in the language, where the high-mid vowels are raised in affixes following a high vowel. For example, the sequential affix *-sé* is realised as *-si* when combined with *nyit* 'sit' to create *nyit-si*.

The phonemic consonantal inventory of Bumthang is as appears in Figure 2, with orthographic equivalents in brackets. A voiced affricate [dʒ] is present in loan words from Dzongkha but is frequently devoiced by speakers. The retroflex series are phonemically analysable as consonant clusters, with their realisation vacillating between a true retroflex and the cluster indicated in the table. The retroflex fricative is only contrastive with the alveo-palatal fricative in loan words (Mark Donohue, personal communication).

		Bilabial	Dental	Alveolar	Retroflex	Alveo-Palatal	Velar	Glottal
Nasal		m	n			ɲ (ny)	ŋ (ng)	
Stop	Voiceless	p	t		tɻ (tr)	tʃ (c)	k	
	Aspirated	p <sup>h</sup> (ph)	t <sup>h</sup> (th)		t <sup>h</sup> ɻ (thr)	tʃ <sup>h</sup> (ch)	k <sup>h</sup> (kh)	
	Voiced	b	d		dɻ (dr)	dʒ (j)	g	
Fricative				s	ʂɻ (shr)	ʃ (sh)		h
Affricate	Voiceless		ts (ts)					
	Aspirated		tʃ <sup>h</sup> (tsh)					
Approximant		w		ɹ (r)		j (y)	w	
Lateral Approximant	Voiceless			ɻ (lh)				
	Voiced			l				

Figure 2: Bumthang consonant inventory

Common allophonic processes involving consonants include intervocalic voicing and voicing assimilation. Voiceless consonants will frequently be realised as voiced when following a voiced segment. Voiced consonants are commonly fricated when intervocalic.

Allomorphic processes involve deletion of final /k/ preceding morphemes with an initial sonorant. A vowel is commonly lengthened to compensate for the missing segment.

Consonant mergers are also common in Bumthang. /k/ and /p/ are frequently realised as /w/ across morphemic boundaries (but never within a morpheme). When a word ending in /p/ is inflected with the affix -s, it is commonly realised as a voiceless bilabial fricative [ɸ]. This second merger is indicated with <f> in the orthography.

As the tonal system is still currently under investigation and involves at least nine tonal contrasts on monosyllables (Mark Donohue, personal communication), I will only be indicating tone in two ways in my work. The first is by the graphs <z> and <zh> which represents the fricatives <s> and <sh> realised with low tone respectively (i.e. <sh> is [ɕʰ] and <zh> is [ɕʰ]). The second is in minimal pairs, where I will be marking the token with the higher tonal realisation with an apostrophe (e.g. *'kher* 'made' vs *kher* 'make')<sup>2</sup>.

Syllables in Bumthang have a maximal phonotactic structure of CCVC, where the second C in the onset can be any approximant except for /j/. The minimum phonotactic syllable is VV, CV or VC. A reduced set of consonants occurs in the coda: the bilabial, dental and velar nasals and voiceless stops, the alveolar and alveo-palatal fricatives, and the voiced alveolar approximants.

### 1.1.2 Morphosyntax

Bumthang is an example of an agglutinative language with an ergative case system. Its default word order is predicate-final, and the predicates are marked with affixes indicating aspect and evidentiality. Arguments are overtly marked for ergative/instrumental, genitive, locative, ablative and dative/allative case, with

---

<sup>2</sup> While minimal lexical pairs which differ only in tone exist (e.g. *li* 'tongue' vs *'li* 'moon'), there are no such examples included in this thesis. The apostrophe thus effectively marks a difference in morphological tone.

absolute case only overtly realised on pronouns. Further discussion of Bumthang morphosyntax can be found in Chapters 3 and 4.

## 1.2 Data

The data for the thesis was primarily collected with the help of Dorji Wangchuk, a male Bumthap from Ura in his thirties, who studies at the University of Canberra. The data was collected in Field Methods classes run by Ass. Professor Mark Donohue at the Australian National University in Canberra, Australia in 2013 and 2015, in a Languages of the Himalayan Area class in 2016 and in follow up sessions with our consultant afterwards. Additional data was collected in Ura, Bhutan; Tang, Bhutan; and Thimphu, Bhutan by Ass. Professor Mark Donohue and Dr Cathryn Donohue with other Bumthang speakers, who helped to confirm our data.

The recordings total over 100 hours, which is currently in the process of being transcribed and archived with Pacific and Regional Archive for Digital Sources in Endangered Cultures (PARADISEC). I have been using Fieldworks Language Explorer (FLEX), software for fieldwork hosted by the Summer Institute of Linguistics (SIL) to organise the ever-expanding corpus of current transcriptions, field notes and collected word forms. A downloadable version of the most recent FLEX project can be found at <https://goo.gl/gDtP4i>. At the time of writing, the interlinear text corpus consisted of 102 texts, of which 75 were transcriptions from elicitation sessions and 27 were transcriptions of running text. All running text within the corpus comes from monologues. This corpus represents approximately half of the collected data (a generous approximation) but has not been fully analysed.

Examples throughout the thesis have four-line glossing. The first line is an allomorphic transcription, including overt marking of affixes and clitics. The second line is a gloss and

the third, a free translation. The fourth line describes where in the FLEx corpus the example can be found – the name of text, whether the text is an elicitation (EL) or a monologue (MN), and the line.

### 1.3 Organisation of Thesis

The structure of the rest of the thesis is as follows. Chapter 2 will discuss the issues involved with word class research, including a discussion of wordhood in Bumthang and the various theories found in the literature. It also will detail the methodology I use for the rest of the thesis.

Chapter 3 uses a functional approach to construct a potential word class system for Bumthang. This will involve using a theory espoused by Croft (1990, 1991, 2000) to identify groups of words which form the core of larger word classes in Bumthang.

Chapter 4 will investigate the hypothesis generated by Chapter 3 by looking closely at the morphosyntactic realisation of the 'core' words. This follows in the steps of more traditional word class investigations by examining distributional evidence for word class systems. Finally, Chapter 5 will summarise the results of Chapters 3 and 4 and discuss the implications and limitations of the research.



## 2. Theories

### 2.1 The Word

For a discussion of word classes, we must first have a definition of 'the word'. This is an area of discussion which is highly circular, as a discussion of grammatical wordhood first requires a theory of grammar; the same for phonological and prosodic words.

Dixon and Aikhenvald (2003) discusses different criteria that languages utilise to define phonological and grammatical words. Phonological words consist minimally of a syllable which is defined segmentally, prosodically or phonologically. Applicable segmental features include phonotactic or segmental structure, word boundary phenomena or pause phenomena, while prosodic features include stress, tone, nasalisation, retroflexion and vowel harmony. Some languages also have phonological rules which apply within the phonological word, while some may apply across a phonological word boundary, such as sandhi rules (Dixon and Aikhenvald 2003:13). There may also be more than one relevant phonological word in the language (ibid. 26).

Grammatical words are defined by what Dixon and Aikhenvald see to be universal criteria (replicated below). They also note that other criteria such as non-recursiveness and distribution of inflections help to define grammatical words in some languages, and the principle of uninterruptedness and isolatability are tendencies which help support definitions.

A **grammatical word** (sic) consists of a number of grammatical elements which:

(a) always occur together, rather than scattered through the clause (the criterion of cohesiveness);

(b) occur in a fixed order;

(c) have a conventionalised coherence and meaning.

(Dixon and Aikhenvald 2003:19)

While Dixon and Aikhenvald see prosody as a defining criterion of a phonological word, Schiering et al. (2006, 2010) show that a prosodic word can be defined separately from a phonological word in some languages. For example, Hildebrandt (2007) finds that there are multiple levels of phonological and prosodic words in Limbu (Kiranti, Tibeto-Burman), which helps to account for “otherwise idiosyncratic alternations” in phonology.

Mismatches between different types of words are common. Clitics are a good example of this, as they form a grammatical word but are phonologically dependent (Zwicky 1985). Multiple languages such as Limbu, Yimas, Fijian, Jarawara and Turkish have compounds which form one grammatical word but two phonological words (Dixon and Aikhenvald 2003, Hildebrandt 2007). In addition, Limbu verbal bipartite stems vary in how cohesive they are phonologically (Hildebrandt 2007). The tonal domain in Nar-Phu (Tibeto-Burman) excludes any morphological prefixes, creating a phonological word which is smaller than the grammatical word (Noonan 2003).

When defining word classes, linguists usually use the grammatical word. This is partially as classification examines lexical forms as opposed to lexemes, which necessarily do not carry overt inflection as part of their lexical entry. However, phonological and prosodic words do influence how words are classified: speakers will generally place ‘word

boundaries’ such as orthographic spaces or pauses in speech around the longer relevant word unit (Dixon and Aikhenvald 2003:30).

## 2.2 Wordhood in Bumthang

It is possible to define phonological, prosodic and grammatical words in Bumthang. My classification of the word system will be primarily based around the grammatical word, although it will be informed by the other types of words present in the language.

Phonological words in Bumthang consist minimally of two segments and can contain several allophonic processes. Allophonic processes which take the phonological word as its domain include intervocalic voicing, assimilation and vowel harmony. In addition, vowel reduction can occur in disyllabic words with a low vowel in the first syllable. For example, /gami/ ‘fire’ is realised as [gəmi] with a reduced vowel.

Intervocalic voicing, assimilation and vowel harmony can be seen in (1a-d), where the affix -sé ‘SEQ’ changes form according to the phonological form of its host. The morpheme is realised with an [s] following an unvoiced obstruent in (1a). Following voiced segments, /s/ is realised as [z]. This applies for both vowels (1b) and consonants (1d). *Buzi* ‘do-SEQ’ in (1b) and *nyitsi* ‘sit-SEQ’ in (1c) demonstrate how the high-mid /e/ is raised to [i] following a high vowel in the preceding morpheme. These processes occur within the boundaries of a single phonological word.

(1a) *Nomé khrak-sé ja thong.*  
Naomi arrive-SEQ tea drink.PERF.P  
‘Naomi arrived and we drank tea.’  
170629.EL.41

(1b) *ka shruk bu-zi ra-zé ka cen ra-mo...*  
snow heavy do-SEQ come-SEQ heaviest.snow come-when  
‘It was snowing down, one of the heaviest snows...’  
Snowballs.MN.2

(1c) *Pema thapsang-nang=ó nyit-si bae-za.*  
 Pema kitchen-in=DAT sit-SEQ cough-IPFV  
 ‘Pema is sitting in the kitchen and coughing.’  
 131021.EL.28

(1d) *...khwi shror-zé ra-s.*  
 ...dog escape-SEQ come-PERF.P  
 ‘...the dog escaped and came for me.’  
 Scary Dog.MN.5

Grammatical words in Bumthang can be defined according to the criteria advanced by Dixon and Aikhenvald in Section 2.1. Clitics are also present in Bumthang, which leads to mismatches between phonological and grammatical words. For example, (2a) and (2b) show that the infinitive clitic =*tó* undergoes allophonic processes, meaning that the verb and the infinitive form one phonological word. However, as the clitic constitutes a separate grammatical word, both *seró* ‘to die’ (2a) and *nyidu* ‘to be’ (2b) are examples of where one phonological word consists of two grammatical words.

(2a) *Trom=i Yuka sem se=ró bi-s.*  
 Tom=ERG Yuka heart die=INF CAUS-PERF.P  
 ‘Tom made Yuka sad.’  
 161021.EL.49

(2b) *Ngai Trom them-zé nyid=u bi-s.*  
 1SG.ERG Tom wait-SEQ COP.PFV=INF CAUS-PERF.P  
 ‘I made Tom wait for me.’  
 161021.EL.70

Prosodic words in Bumthang have not been as well investigated as the other two types of words, as the tone system is still being researched. However, we can define the prosodic word separate to the phonological word as a word with a single tonal contour.

An example of where the prosodic word does not match with the other two words is the lexical form *ra-na* ‘come-PFV.I’. Each morpheme carries a separate falling tone (i.e. constitute separate prosodic words) but a reduction of the *a* in the first syllable shows that this is one phonological word. Additionally, *ra-na* forms one grammatical word as

the two morphemes must occur next to each other, in the same order, to achieve the same meaning.

### 2.3 Word Classes

Traditionally, linguists have defined word classes based on morphology and syntax.

When classical grammarians such as Dionysius Thrax, Pāṇini or Priscian constructed their theories of grammar and word classes, they noted affixes which were limited to a single class, or words which must occur before or after other words (Fry and Faddegon 1939, Kiparsky 1995, Haspelmath 2001, Rauh 2010). In this sense, work conducted by modern linguists is a continuation of this early morphosyntactic approach.

The word classes that we use are heavily influenced by the classic Ancient Greek/Latin paradigm. Traditional descriptions of languages will commonly include nouns, verbs, adjectives, adverbs, pronouns, adpositions, conjunctions, numerals and interjections (Haspelmath 2001). This can be traced back to how Western scholars adapted the Latin system to 'fit' their languages, despite the large difference in morphosyntactic profile, and the impact the Greek and Latin grammarians had on early linguistics.

Linguists regularly use these traditional word class categories in their descriptions.

However, modern linguists state that the sole universal part of speech is most likely the interjection (cf Ameka 1992, Schachter 2007), and classes such as 'noun' and 'verb' are not universally relevant (although common). For example, languages such as Samoan have been hypothesised not to have a noun/verb distinction (Mosel and Hovdhaugen 1992). The state of other parts of speech, such as the adjective class, is also highly variable cross-linguistically (e.g. Dixon 1982, Bhat 1994, Wetzler 1996, Dixon 2004).

Evans and Levinson assert that other 'non-traditional' major classes of words can be found in single languages, language families or languages spoken in the same geographic

area (2009). These classes range from ideophones in Mundari (Osada 1992) and pre-/co-verbs in Australian and Papuan languages (Pawley 1993, Schultze-Berndt 2003), to positionals in Mayan languages (Brown 1994, England 2004, Bohnemeyer and Brown 2007) and classifiers in East Asia (Goddard 2005).

Another common problem is the classic ‘lumping-splitting’ problem. Linguists have not yet come to a consensus on how much evidence is needed before we say two things are different, and have largely acknowledged that it comes down to personal taste (e.g. Schachter 2007). For example, in Korean, adjectives (*hyengyengsa*) form a separate class to verbs (*dongsa*) but take almost all the same affixes. In this case, some people describe *hyengyengsa* as ‘verbs’ to capture the similarities (Martin and Lee 1969).

Most linguists recognise that it is almost impossible to define word classes solely by semantics (e.g. Wierzbicka 1986). Despite this, some linguists have advocated for a semantic approach to defining the ‘core’ of word classes (Lyons 1977). This sort of approach requires use of some sort of prototype theory to define the ‘core’ members, with typically little discussion of non-prototypical members (cf Baker 2003). However, a semantic comparison of word classes cross-linguistically is far more possible, as languages will consistently have words (or roots) denoting meanings like things (e.g. ‘tree’ or ‘child’), actions (e.g. ‘run’ or ‘break’) and properties (e.g. ‘good’ or ‘small’) (Haspelmath 2012).

## 2.4 Defining Word Classes

To show how word classes are commonly defined, I will demonstrate with English. Word classes in English can be morphosyntactically defined with ease. A prototypical verb will be inflected with ‘-s’ when its subject is in the third person singular (e.g. ‘walks’) and inflected with ‘-ed’ when in the past tense (e.g. ‘walked’). The suffixes ‘-s’ and ‘-ed’ are

in complementary distribution and form part of an affixal tense-aspect paradigm in English. The regularity and predictability of these affixes means we can exclude superficially similar forms like 'blue-eyed' from being verbal, as 'blue-eyes' is not a permissible verb form<sup>3</sup>.

Furthermore, the verb will select the number of arguments syntactically required. 'Fall' requires one argument, and 'hit' and 'put' take two and three respectively. The verb will also specify the semantic role of the arguments.

Nouns in English will prototypically occur with a determiner (*a, the, that*). The times when overt determiners are ungrammatical are also predictable, as the noun will either be a mass noun (e.g. *furniture*), a count noun with a plural affix (e.g. *horses*) or the proposition will be a general statement (e.g. 'Love is grand'). Count nouns can be pluralised (e.g. *horses, children*) and you can derive adjectives by attaching affixes such as '-y' or '-al' depending on the noun (e.g. *bug > buggy; nation > national*).

Adjectives in English normally occur prenominal, between the determiner and the noun. There are two methods of forming comparatives and superlatives: the first, a morphological method where adjectives take -er and -est; and the second, a syntactic method where the adjective is preceded by 'more' or 'most'. The choice of method primarily depends on the phonological shape of the adjective, with polysyllabic words more likely to use the syntactic method. Words which are etymologically from Romance languages also use 'more' and 'most' to construct the comparative and superlative.

The definitions of the three English word classes has been conducted using morphosyntactic distribution. While each class coincides with certain semantic concepts,

---

<sup>3</sup> That said, 'blue eyes' with a space instead of a hyphen is an acceptable noun phrase in English. 'Blue-eyed' is an adjective.

such as verbs encoding events or states, we did not use semantics to define a word class.

It is impossible to define other languages by the same morphosyntactic criteria as English. Although adjectives also occur prenominal in Mandarin – marked with *-de* – relative clauses are encoded the exact same way (Li and Thompson 1981). Thus, a ‘prenominal modifier position’ is not a good criterion for distinguishing Mandarin adjectives from verbs but it is better for English adjectives and verbs<sup>4</sup>. Similarly, nouns in French must be marked for lexical gender. This means gender agreement is a good criterion to define a class of nouns in French. However, this does not work for defining English nouns, as there are very few nouns which carry lexical gender marking (as opposed to semantic), and those that do are atypical.

## 2.5 Theories of Word Classification

Other ways of defining word classes apart from language-specific morphosyntax have been proposed by linguists. Over the years, different proposals have been put forward from generativist, functionalist and cognitive schools of thought. All theories, regardless of theoretical alignment, have sought to capture different phenomena and build upon their predecessors’ work.

Chomsky originally separated lexical categories (i.e. content words or major word classes) from functional categories and floated the idea of these categories carrying features like [+N] and [+V] in his seminal 1970 paper (Chomsky 1970). He later expanded this to a binary feature set of [ $\pm$ N,  $\pm$ V] which specified the lexical categories of noun,

---

<sup>4</sup> This is still not the best criterion for distinguishing English verbs and adjectives, as modifying verbs can also occur prenominal, e.g. ‘a crying baby’. However, morphological evidence helps us disambiguate the two word classes in this position.



verb and adjective (Chomsky 1975). Jackendoff later added prepositions to be a ‘logical’ fourth class (Jackendoff 1977:31). The combined feature paradigm is shown in Figure 3.

	+N	-N
-V	nouns	prepositions
+V	adjectives	verbs

Figure 3: Chomskyan word classification

It is important to note that rather than [N] and [V] simply representing ‘nominal’ and ‘verbal’ features, Chomsky also intended them to represent ‘substantival’ and ‘predicative’ notions respectively (Chomsky 1981:48). Adjectives, which have the value [+N, +V], thus theoretically carry elements of both substantives and predicates.

This early framework suggests that lexical categories which share the same value (e.g. nouns and prepositions) should form a natural class. Theoretically, the opposite should then be true: nouns and verbs should not form a natural class and neither should prepositions and adjectives. However, this is untrue in English: adjectives and prepositions are both able to appear clause-finally in resultative constructions, where nouns and verbs cannot (Baker 2003).

- (1a) John pounded the metal flat. (AP)
- (1b) John threw the ball into the barrel. (PP)
- (1c) \*John pounded the metal a sword. (NP)
- (1d) \*John polished the table shine. (VP)

(Baker 2003:2)

Another problem with the framework was discovered with further research into language-particular word class systems. A major assumption of the Chomskyan framework is that [N] and [V] constitute basic features of words and therefore word class organisation. However, work on Nootkan languages (e.g. Swadesh 1938) and Salishan languages (e.g. Kuipers 1968, Kinkade 1983, Van Eijk and Hess 1986), both

hypothesised to lack a noun-verb distinction<sup>5</sup>, showed that we cannot assume that these features are a part of universal word class categorisation principles.

The Chomskyan framework, while groundbreaking in its own way, was little used in the generative literature. A notable exception to this was its use in case assignment principles (Stowell 1981); however, this practice fell out of use. This original framework is also not congruent with the Minimalist Program (Baker 2003).

Functionalist work on classifying word classes started to gain traction in the eighties. For example, Hopper and Thompson's seminal 1984 paper argued for a discourse-dependant word classification system. Their system involves acategorial words, which may have a predisposition for a particular word class, gaining full nounhood or verbhood through their use in discourse (Hopper and Thompson 1984).

Langacker (1987) proposed a feature system which was heavily influenced by cognitive linguistics, summarised in Figure 4. Like Hopper and Thompson, Langacker believes roots may be acategorial but acquire nounhood or verbhood in use in constructions. He defines nouns, verbs and adjectives based on two criteria, 'relationality' and 'scanning'.

	Relationality	Scanning
Noun	-	summary
Verb	+	sequential
Adjective	+	summary

Figure 4: Langacker's word classification (1987)

Verbs and adjectives are both [+relational] as they both 'relate' things: verbs connect participants and events, and adjectives link nouns with properties. Nouns are

---

<sup>5</sup> Note that later work on these languages has found that a noun-verb distinction can be upheld. Jacobson (1979) discusses how Nootka verbs require affixation to function as an argument while Nootka nouns do not. Samoan and Iroquoian languages, which are also frequently cited as not having a noun-verb distinction, also has been found to have both word classes (cf Mithun 2000, Haspelmath 2001).

[-relational] as they denote discrete entities<sup>6</sup>. The three classes are also sorted according to their 'scanning' type, with nouns and adjectives needing summary scanning while verbs are scanned sequentially. This means that nouns and adjectives only require a single glance for speakers to conceptualise their reality, while verbs necessitate a longer viewing to determine the nature of the event (hence a 'scanning' of sequential events).

Two influential functional theories were advanced in the early 1990s, Hengeveld (1992) and Croft (1990, 1991, 2000). Hengeveld sees the prototypical functions of verbs as predicates, nouns as referents, adjectives as noun modifiers and adverbs as non-nominal modifiers respectively (1992:37). However, all word classes can theoretically predicate depending on the language. Based on this, he proposes that there are two types of languages, flexible and rigid, depending on how tightly word classes are associated with their prototypical functions in the language and how permissive the language is of non-verbal predicates.

The theory advanced in Croft (1990, 1991, 2000) has been well-recognised in recent work. Croft defines the syntactic categories of nouns, verbs and adjectives as a prototype correlation of pragmatic functions and semantic classes. According to this model, prototypically referential objects, property modifiers and action predicates should be coded as core classes of nouns, adjectives and verbs respectively. The correlation of pragmatic functions and semantic classes is summarised in Figure 5.

---

<sup>6</sup> Despite Langacker hypothesising that nouns are non-relational, some nouns are inherently relational like kinship terms – e.g. 'aunt' means 'mother's sister'.

	Reference	Modification	Predication
Objects	<i>core nouns</i>	genitives, adjectivals, PP modifiers	predicate nominals
Properties (Qualities)	abstract de-adjectival nouns	<i>core adjectives</i>	predicate adjectives
Events (Actions)	nominalisations, infinitives, gerunds, complements	participles, relative clauses	<i>core verbs</i>

Figure 5: Croftian word classification (adapted from (Croft 1990))

Croft further claims that if a word is used in a non-prototypical function, it should be more typologically marked. He uses this to explain how words are more morphologically marked when performing atypical functions, such as a verb requiring nominalisation to function reference.

Building on the idea of the prototype correlation put forward by Croft, Baker (2003) proposes a Principles and Parameters word class framework which defines word classes purely on a syntactic basis. While Baker uses the same  $[\pm N, \pm V]$  features as Chomsky, he instead defines three word classes and ignores prepositions. The most dramatic departure from the previous Chomskyan scheme is the classification of adjectives as  $[-N, -V]$  instead of  $[+N, +V]$ . This is because Baker's definition of  $[N]$  and  $[V]$  is different to that of Chomsky; rather than denoting 'substantives' or 'predicates', Baker defines  $[V]$  as taking Spec (i.e. licenses a subject) and  $[N]$  as bearing a referential index (i.e. can leave a trace). As such, he defines verbs ( $[+V, -N]$ ) as "inherently predicative"; nouns ( $[-V, +N]$ ) as "inherently referential" and adjectives ( $[-V, -N]$ ) as neither inherently predicative or inherently referential (Baker 2003:16). This is a break from functionalist work which defines adjectives as prototypical attributors, as Baker instead defines adjectives as neither verbal nor nominal.

The large array of different perspectives on how to classify words and what features are relevant in a classification means there is no one 'right' way to define word classes in a language. The idea of prototypes – both prototypical examples of words in a language (e.g. 'dog' as a good noun in English) and prototypical functions of word classes – is an important one which should be incorporated into any analysis of word classes. Any analysis should be able to handle the good 'dogs' and the not-so-good 'furniture' within a single framework to be effective.

## 2.6 Word Classes in the Himalayas

Work on word classes in the Himalayas has largely consisted of a chapter or two in grammars and a few papers detailing adjective classes, with little work comparing word classes in different languages. A common thread can be seen in descriptions, such as adjectives regularly 'modifying nouns' and nouns or noun phrases as syntactic arguments of verbs. Figure 6 details the varied ways that word classes are described and defined.

Other descriptive tendencies are evident in Figure 6. Some descriptions rely on semantic definitions for word classes and some rely on position relative to other words. Nouns and verbs commonly have affixes as a defining criterion, and phonological shape is remarked upon for verbs and adjectives. Interestingly, more than one class of adjectives is posited for multiple languages in the Himalayas.

Word Class	Description	Languages
Verbs	Refers to states, events, actions	Lepcha (Plaisier 2006)
	Refers to referents of NPs	Lepcha (Plaisier 2006)
	Class-specific affixation (including negative prefixes)	Tshangla (Andvik 2010), Kurtöp (Hyslop 2017), E. Tamang (Lee 2011), (Watters 2002)
	Stems are monosyllabic	Kurtöp (Hyslop 2017), E. Tamang (Lee 2011)
	Follow arguments in clause	Kurtöp (Hyslop 2017)
Nouns	Refers to objects, entities, individuals	Lepcha (Plaisier 2006), Tshangla (Andvik 2010)
	Syntactic argument of verbs	Lepcha (Plaisier 2006), Kurtöp (Hyslop 2017)
	Head of noun phrase	Tshangla (Andvik 2010)
	Occurs in noun phrase	Kurtöp (Hyslop 2017)
	Does not take affixes	Tshangla (Andvik 2010)
	Takes nominal suffixes	Dongwang Tibetan (Bartee 2007), Kurtöp (Hyslop 2017), Kham (Watters 2002)
Adjectives	Modifies nouns	Lepcha (Plaisier 2006), Tshangla (Andvik 2010), Dongwang Tibetan (Bartee 2007), Bumthang (van Driem 2015), Kurtöp (Hyslop 2017)
	More than one class	Manange (Genetti and Hildebrandt 2004), Dongwang Tibetan (Bartee 2007)
	Takes <i>-la</i> suffix	Kurtöp (Hyslop 2017)
	Tendency to be polysyllabic	Kurtöp (Hyslop 2017), Manange (Hildebrandt 2004)

Figure 6: Word class descriptions in and near Bhutan

## 2.7 Methodology

This chapter has introduced a multitude of different approaches and methods for the analysis of word classes. Cross-linguistic theories range from generativist approaches such as those of Chomsky (1970, 1975, 1981) and Baker (2003), to functionalist approaches such as Hopper and Thompson (1984) and Croft (1990, 1991, 2000).

Language-specific studies ultimately define word classes using morphosyntactic criteria, with semantic information used as supporting evidence.

To define word classes in Bumthang, I will begin by using one of the cross-linguistic theories introduced in 2.5 to identify potential word classes in Chapter 3. A more detailed examination of the results produced by the chosen method will follow in Chapter 4. This will allow for a full investigation of the status of word classes in Bumthang from both a cross-linguistic and language-internal perspective.

I found Croft's (1990, 1991, 2000) theory to provide the best method for a 'first-pass' investigation of word classes in the language. It will provide a good illustration of how words are functioning in discourse and allow us to establish a language-internal theory of word classes before investigating further.

Chapter 4 will be a deeper look into how the tentative word classes are distributed morphosyntactically in Bumthang. By using a strategy which has remained best practice in word class studies for centuries, I will provide a systematic description of the word class system in the language. This will help to compare Bumthang word classes with descriptions of other Himalayan languages as introduced in 2.6.

### 3. First Pass

This chapter will establish a working theory of word classes in Bumthang using Croft’s (1990, 1991, 2000) functional framework. Croft’s model uses the correlation of pragmatic functions and semantic classes to define prototypical nouns, verbs and adjectives. This comparison is carried out in pragmatically neutral contexts. Figure 5, which shows the correlation between functions and semantic classes and how they are encoded, has been replicated here. We can see that Croft’s model proposes that core nouns are prototypically referential objects; core adjectives are property modifiers; and event predicates are prototypical verbs.

	Reference	Modification	Predication
Objects	<i>core nouns</i>	genitives, adjectivals, PP modifiers	predicate nominals
Properties	abstract de-adjectival nouns	<i>core adjectives</i>	predicate adjectives
Actions	nominalisations, infinitives, gerunds, complements	participles, relative clauses	<i>core verbs</i>

Figure 5: Croftian word classification (adapted from (Croft 1990))

These semantic classes of object words, property words and action words are characterised by four binary pairs: relational/nonrelational, stative/dynamic, persistent/transitory, and gradable/nongradable. The qualities which each semantic class possess can be seen in Figure 7. Persistence is defined as “how long the process or state is likely to last over time” (Croft 1991:64), while gradability applies to property words and corresponds to the traditional grammar use of this term.

	Relationality	Stativity	Persistence	Gradability
Objects	-	+	+	-
Properties	+	+	+	+
Actions	+	-	-	-

Figure 7: Characteristics of prototypical semantic classes (adapted from Croft (2005))



This correlation of pragmatic functions and semantic classes hinges on the ‘typological markedness’ of different semantic classes relative to others when performing a selected pragmatic function. Croft defines ‘typological markedness’ to be morphological or syntactic coding of pragmatic functions. For example, action words in English require less morphosyntactic coding to act as predicates than object words<sup>7</sup>. This means that English object words are more typologically marked than English action words when predicative. Generally, more typologically marked values will be marked with at least as many morphemes as less marked values, whether this be coded morphologically or syntactically.

Applying Croft’s theory to Bumthang requires selection of good ‘objects’, ‘properties’ and ‘actions’. To have an impartial selected of which words are ‘good’, I have selected the three most-used words in my Bumthang corpus (described in 1.2) which best fit semantically into each class (Figure 8). For our purposes, these words must also be non-homophonous, fully lexical and occur at least once outside of an elicitation context. This excludes words which have a secondary function as an auxiliary, such as *gae* ‘go, become’ or *nyit* ‘sit, STATE’, as well as words with a second unassociated meaning such as *lap* ‘say; fold dumplings’.

---

<sup>7</sup> A typical action word in English like ‘jump’ takes a portmanteau affix which specifies tense and subject person agreement affix in a simplex clause. Object words like ‘dog’ require a copula, which is marked for TAME, and a determiner (i.e. ‘is a dog’). Here, I define ‘jump’ as requiring a morphological strategy (affixation) to act as a predicate and ‘dog’ as requiring both morphological (TAME on copula) and syntactic strategies (copula, determiner).

Word	Semantic Class	Number of Tokens
<i>mi</i> 'person'	object	104
<i>khwé</i> 'water'	object	94
<i>seng</i> 'tree, wood'	object	74
<i>ras</i> 'came'	action	41
<i>jikpala</i> 'big'	property	41
<i>kher</i> 'make'	action	38
<i>zhindi</i> 'red'	property	37
<i>thong</i> 'drink'	action	36
<i>kacan</i> 'good'	property	28

Figure 8: Prototypical semantic class members

Attestations of these nine words will serve as the base for establishing a hypothesis of the word class system in Bumthang. The following sections will each examine a different prototypical function: predication (3.1), reference (3.2), and modification (3.3), respectively. A discussion and summary of the findings will follow in 3.4.

### 3.1 Function of Predication

I will begin my investigation of the prototypical pragmatic functions proposed by Croft with predication. This is due to Hengeveld's (1992) hypothesis that predication is a basic function of words, regardless of word class. This provides a convenient springboard from which to begin an analysis. Theoretically, action words will be 'less marked' when predicating compared with words that denote objects and properties.

#### 3.1.1 Actions

Action words, like *ras* 'came', *kher* 'make' and *thong* 'drink', occur at the end of clauses when predicative and do not require any derivational morphology to predicate. However, they are marked with inflections which encode aspectual and evidential distinctions.

Throughout the corpus, *ras* 'came' only denotes past completed actions like in (1). If we try to find sentences with a current time interpretation, *ras* changes to *raza* (2). This

suggests that the root of *ras* and *raza* is *ra* and that *-s* and *-za* are inflections which encode temporal distinctions.

- (1) *Tsimini caksai tra-zi gae-mo-né*  
 moreover chain break-SEQ become-when-ABL  
*khwi shror-zé ra-s.*  
 dog escape-SEQ come-PFV.P  
 ‘...and the chain broke, and the dog escaped and came for me.’  
 Scary Dog.MN.5
- (2) *Darung tau thungi bomé-dé=ng saekal thung bu-zi ra-za.*  
 again from.far.away girl-SPEC=also bicycle PRFM do-SEQ come-IPFV  
 ‘Again, a girl is coming from far away on her bike.’  
 Pear Story.MN.67

When we compare sentences with *kher* and *thong*, we see the same temporal distinctions made. (3a) and (4a) both denote past, completed actions and (3b) and (4b) denote actions which have started but have not yet been completed. (3a) and (4a) do not have an overt *-s* segment but still retain the tone associated with the affix, a final rising tone (distinct from sentence-final rising intonation). The deletion of the *-s* segment is explainable through phonotactic restrictions, as only one consonant is allowed in the coda position. (3b) and (4b) both overtly realise the affix *-za*. This suggests that these affixes are regular and form part of an aspectual paradigm which is inflected on predicates.

- (3a) *Dema sutla zhego zama=ning zhebai=ru kher.*  
 yesterday eveningfood meal=and beans=DAT make.PFV.P  
 ‘Last night, I made a meal with beans.’  
 My Cooking.MN.2-4
- (3b) *Dema Yuk(a)=i Nomé=ró momo kher-za.*  
 yesterday Yuka=ERG Naomi=ALL dumpling make-IPFV  
 ‘Yesterday Yuka was making dumplings for Naomi.’  
 151114.EL.30
- (4a) *Trom=i churma thong.*  
 Tom=ERG beer drink.PFV.P

'Tom drank beer.'

151107\_2.EL.38

(4b) *Ngat khwé nokpa thong-za.*

1SG water cool drink-IPFV

'I'm drinking cold water.'

151002\_6.EL.11

Example (3a) shows that predicates select arguments which can be unrealised if understood from context. In (3a), the agent of the sentence is implicitly understood to be the speaker as the utterance comes from a retelling of what the speaker did the night before.

We can see throughout the examples that action words occur clause-finally. As all examples represent pragmatically unmarked clauses, we can conclude that this is an example of a syntactic strategy used by action words to act as predicates.

From the data, we can see that words denoting predicative actions in Bumthang take morphological TAME marking and occur clause-finally. They are thus typologically marked morphologically as well as syntactically.

### 3.1.2 Objects

There is no naturally-occurring data which shows the three words denoting objects selected in 3.1 in a predicative function. In fact, the most attested object word, *mi* 'person', does not occur once as a predicate throughout the corpus. Both *khwé* 'water' and *seng* 'tree' have one predicative token each.

(2a) and (2b) show both words occur with the equative copula *wen* to function as predicates. In (2a), *khwé* 'water' is modified by *tshan* 'hot'<sup>8</sup> while *seng* 'tree' in (2b) is

---

<sup>8</sup> We can safely conclude that *khwé tshan* 'hot water' is the predicative unit rather than *tshan* 'hot' as *tshan* 'hot' is only found when modifying. When predicative, *tshan* 'hot' becomes *tshanma* 'hot'.

unmodified. The construction seen here is an equative clause where the second argument is asserted to refer to the same entity as to the first.

(2a) [Tshae] [khwé tshan wen].  
 PROX.DET water hot EQ.COP  
 'This is hot water.'  
 160421\_2.EL.28

(2b) [Tshae tshik] [seng wen].  
 PROX.DET word tree EQ.COP  
 'This word is 'tree'.  
 150814\_1.EL.4

Objects thus require the equative copula to predicate. This is a syntactic strategy employed by speakers to achieve this function. This equative copula is inflected for evidentiality (cf Wyatt 2017)<sup>9</sup> and must occur clause-finally, meaning that objects need both one morphological (inflection) and two syntactic strategies (clause-final position and a copula) to function as predicates.

### 3.1.3 Properties

*Kacan* 'good', *zhindi* 'red' and *jikpala* 'big' are all attested functioning as predicates throughout the corpus. However, the examples primarily come from elicitations, with the only tokens from casual speech being involved in a 'become X' construction.

When predicating, properties require the copula *na* (3a). There are some exceptions to this strategy. *Wen* 'EQ.COP' can appear as a copula with some words denoting properties, such as *zhindi* 'red' like in (3b). This is the same strategy discussed in 3.1.2 for object words.

(3a) [Gon] [kacan na].  
 3SG good COP

---

<sup>9</sup> Wyatt (2017) shows that there is an evidentiality distinction marked in the copula between personal and impersonal using the suffix that codes the imperfective on 'verbs'. This is also applicable to the equative copula.

'He is well.'  
150828\_3.EL.78

- (3b) [Nigu=é bit] [zhindi wen-za].  
pocket=GEN outside red EQ.COP-IPFV  
'The outside of the pencilcase is red.'  
150828\_3.EL.18

*Jikpala* 'big' should form a predicate with the copula *na*, like *kacan* 'good' in (3a). Instead *jikpala* 'big' appears as *jikpa* 'big' when forming a predicate with the copula *na* (3c-d).

This means that *jikpala* 'big' is analysable as a root *jikpa* with an affix *-la*, as the *-la* affix does not appear when *jikpa* 'big' is predicative.

- (3c) [Seng] [namésamé jikpa nak-sa].  
tree very big COP-IPFV  
'The tree is very big.'  
151114.EL.75

- (3d) [Tshae tshali] [jikpa=rang na].  
PROX.DET orange big=EMPH COP  
'This orange is very big.'/'This orange is the biggest.'  
150828\_3.EL.91

The predicate can be modified with qualifiers like *namésamé* 'very' (3c). An emphatic clitic can also attach to the property word (3d) to express the speaker's judgement of the property in question (i.e. that it is *very* big).

The predication strategies used by property words can be classified in two ways. Firstly, *zhindi* uses the same strategy as object words when predicating by forming a predicate with *wen* 'EQ.COP'. On the other hand, the rest of the property words form a predicate with *na* 'COP'. Both methods require a second word which inflects for evidentiality. This second word must then occur clause-finally in pragmatically unmarked contexts.

Predicative properties thus employ one morphological and two syntactic strategies.

### 3.1.4 Summary

In Sections 3.1.1-3.1.3, we saw that a mixture of morphological and syntactic structures is used by words to function as predicates. All predicates require morphological marking for aspect and evidentiality. In addition, all predicates occur clause-finally, which is an example of syntactic markedness. Action words require no further marking, while both object words and property words require a secondary copula (which carries the TAME affix) to function as predicates. A summary of the strategies used is in Figure 9.

	Predication	Morphological	Syntactic
Objects	<i>khwé wen(-za)</i> 'is water' <i>seng wen(-za)</i> 'is a tree' <i>mi wen(-za)</i> 'is a person'	+	++
Properties	<i>kacan na(k-sa)</i> 'is good' <i>zhindi wen(-za)</i> 'is red' <i>jikpa na(k-sa)</i> 'is big'	+	++
Actions	<i>ra(-s/-za)</i> 'come' <i>kher(-za)</i> 'make' <i>thong(-za)</i> 'drink'	+	+

Figure 9: Predication in Bumthang

Out of the three semantic classes, predicative actions are the least typologically marked. This allows us to classify them tentatively as 'core verbs' in Bumthang.

## 3.2 Function of Reference

Following from predication, I will now look at words that are used in a referential function. When used referentially, we expect objects to be the least typologically marked, with properties and actions requiring more morphemes to perform the same function.

### 3.2.1 Objects

Most tokens in the corpus for each of the three object words selected occur when the words are being used referentially. *Seng* 'tree', *khwé* 'water' and *mi* 'person' appear

throughout the corpus fulfilling various roles in a sentence. They can appear alongside other words to constitute a reference or can occur alone to perform the same function.

For example, in (4a), *seng* functions as a reference to a non-specific tree and stands alone. However, in (4b), the reference unit is instead *utui seng* ‘that tree’ with an explicit determiner. This shows that syntactic strategies (i.e. using more than one word) to encode object words as references are present in Bumthang but are not required by speakers.

(4a) *Ngai tari=i seng tuf.*  
 1SG.ERG axe=INSTR tree cut.PFV.P  
 ‘I cut the tree with an axe.’  
 130826.EL.41

(4b) *Utui seng ringshing wen.*  
 DIS.IMM.DET tree long EQ.COP  
 ‘That tree is tall.’  
 130916.EL.5

Object words can also take morphological marking to function referentially. *Khwé* in (4c) does not require any affixes to refer to ‘water’, like how *seng* ‘tree’ is realised in (4a).

However, in (4d), *khwé* ‘water’ takes allative case to act as the end state indexed by the predicate.

(4c) *Ngat khwé tsha-za.*  
 1SG water heat-IPFV  
 ‘I am heating up water.’  
 160526\_1.EL.1

(4d) *Ka khwé=ró shru-zumo.*  
 snow water=ALL melt-PFV.N  
 ‘Snow melts to water.’  
 160616.EL.14

What we see here is that no morphological or syntactic marking is required for object words to act referentially within a sentence, although it is certainly possible. This



suggests that reference is a less typologically marked function of object words in Bumthang.

### 3.2.2 Actions

Compared to object words, we expect action words to be more typologically marked when performing a referential role. Unsurprisingly, action words require morphological marking to function referentially, through clausal nominalisation with *-thang* or through marking with *=tó* to act as an infinitive. As only *kher* ‘make’ appears with either of these markers, examples with other action words have been included in this section.

*-Thang* attaches to a predicate and turns it into a reference which can take case like object words (cf 3.2.1). In (5a), the clause includes an agent and a patient and is marked by the locative case *na*; in (5b), the clause only includes a patient and is marked by the genitive case *é*.

(5a) [***Wii***                    ***tortola sut-thang***]=*na ta-zi*  
 2SG.ERG                    squirrel kill-ANMZ=LOC see-SEQ  
*ngat wet=na dék-sa.*  
 1SG    2SG=LOC                    scare-IPFV  
 ‘Seeing how you kill squirrels, I’m scared of you.’  
 161111.EL.43

(5b) *Osaé*                    [***bramnyai kher-thang***]=*é*                    *khorning...*  
 PROX.IMM.DET bramnyai                    make-ANMZ=GEN                    about  
 ‘This is about how you make bramnyai...’  
 Making Bramnyai.MN.6

The action word can alternatively take infinitive marking *=tó* and act as a reference in (5c). Infinitives can encode a patient argument within its scope, but not agents. As such, action nominalisations are a better representation of referential action words.

(5c) *Ngai*                    ***kar chong=ó***                    *khan.*  
 1SG.ERG                    run run=INF                    know.how.IRR.I  
 ‘I know how to run.’  
 130826.EL.98

We can conclude that actions are typologically marked as they require morphological marking to act referentially. This includes obligatory morphological marking of the action nominaliser *-thang* or the infinitive *=tó*.

### 3.2.3 Properties

Property words should also be more typologically marked when in a referential role than object words. The only clear examples of the three selected property words acting referentially are in (6a) and (6b), where *zhindi* ‘red’ requires the *-la* affix to be a reference. It co-occurs with *ngae* ‘my’.

(6a) *Ngae zhindi-la ao nak-ké?*  
 1SG.GEN red-LA where COP-Q  
 ‘Where is my red one?’  
 131112.EL.20

(6b) \**Ngae zhindi ao nak-ké?*  
 1SG.GEN red where COP-Q  
 ‘Where is my red?’  
 131112.EL.19

However, we cannot simply characterise the affix *-la* as a referential marker. In (6c), its presence allows *jikpala* ‘big’ to form an object word-style predicate like in 3.1.2.

However, *zhindi* also has the same ‘referential’ form as in (6a) when modifying *pecha* ‘book’ in (6c)<sup>10</sup>.

(6c) [*Utui pecha zhindi-la*] [*jikpa-la wen*].  
 DIS.IMM.DET book red-LA big-LA EQ.COP  
 ‘That red book is big.’  
 131112.EL.8

Whilst there are no recorded examples in the corpus, discussions in session 150828\_3.EL found that *jikpala* ‘big’ can be marked with a plural marker and be an acceptable

<sup>10</sup> More discussion on the nature of the *-la* suffix can be found in Section 4.3.2.2.1.

reference in a sentence, meaning ‘big things’. There are no examples of *jikpa* ‘big’ occurring without *-la* in non-predicative examples.

*Kacan* ‘good’ also has no recorded examples of referential use. Our consultant did not accept the form *kacan-la*, thus *kacan* ‘good’ cannot be encoded as a reference using the same strategy as *zhindi* ‘red’ or *jikpa* ‘big’. This is because *kacan* ‘good’ requires the copula *na*, whereas *zhindi* ‘red’ and *jikpa* ‘big’ do not take the copula outside of a predicate.

Other examples of property words which require *na* ‘COP’ include *kha tsha* ‘spicy’. In (6d), *kha tsha* ‘spicy’ takes *na* ‘COP’, which uses a relativisation strategy like action modifiers to act referentially. *Kacan* ‘good’ would thus refer using the same construction (cf 3.3.1).

(6d) *Kha tsha*        *nak-khan*        *ajilé*    *yo?*  
spicy            COP-REL        whose    EQ.Q  
‘Whose is the one which is spicy?’  
151030.EL.86

We have two clear referential strategies employed by property words. The first is marking with the affix *-la*, like *zhindila* ‘red’ and *jikpala* ‘big’. This affix does not explicitly perform a derivational function allowing properties to act referentially, but does enable it. The second strategy is using a relativised copula, like *kha tsha* ‘spicy’ (and *kacan* ‘good’). Both strategies utilise morphosyntactic marking on the property words.

### 3.2.4 Summary

We saw in Sections 3.2.1-3.2.3 that encoding reference can be simple (3.2.1) or complex (3.2.3) in Bumthang.

There is a split in the referring strategies of the property class: one group of words takes *-la*, and the second group takes a relativised copula *nak-khan*. The first group requires

both morphological (-*la*) and syntactic strategies (second word) to occur referentially; the second group requires a relativised copula to act as a reference. The copula also requires syntactic encoding of its argument, which means this group of property words is more typologically marked.

Action words require clausal nominalisation or marking as an infinitive to function referentially, which I believe to be morphological markedness. They can take case marking like object words.

Object words are unproblematic. They exhibit no obligatory morphosyntactic markedness when acting referentially. The optionality of marking is indicated by brackets around the + values in the table. This group of words can be classified as ‘core nouns’ in Bumthang. A summary of the results can be found in Figure 10.

	Reference	Morphological	Syntactic
Objects	<i>mi</i> ‘person’ <i>khwé</i> ‘water’ <i>seng</i> ‘tree’	(+)	(+)
Actions	<i>ra-thang</i> ‘coming’ <i>kher-thang</i> ‘making’ <i>thong-thang</i> ‘drinking’	+	-
Properties <sub>1</sub>	<i>zhindi-la</i> ‘red one’ <i>jikpa-la</i> ‘big one’	+	+
Properties <sub>2</sub>	<i>kacan nak-khan</i> ‘good one’	+	+

Figure 10: Reference in Bumthang

### 3.3 Function of Modification

The last of the three prototypical functions, modification, will be the focus of this section. Property words should be the least typologically marked, with actions and objects being more typologically marked.

### 3.3.1 Actions

The strategy which action words use to modify is relativisation with the affix *-khan*. This can be seen in (7a), where *utui mi kherkhan* ‘what that person made’ modifies *momo* ‘dumpling’. The relative clause precedes the modified word. This construction thus uses both morphological and syntactic strategies.

- (7a) **Utui**            **mi**    **kher-khan**    **momo**            **ngam-za.**  
DIS.IMM.DET    person    make-REL      dumpling      taste.good-IPFV  
‘The dumplings that person made taste good.’  
151114.EL.97

Another strategy can be found, whereby action words are nominalised and take object modification marking when modifying references. As this strategy requires two forms of morphological marking – nominalisation and genitive case – and is not the simplest modification strategy, I will leave it out of this discussion. An example of how this works can be seen, however, in (8c) where a locative nominalisation modifies *sago* ‘place’.

### 3.3.2 Objects

Modifying objects is a relatively common strategy used in Bumthang. The simplest structure is an object word marked with the genitive case *é* which modifies another object word (8a).

- (8a) **Ka=é**            **boi**    **ré-zi...**  
snow=GEN      ball    roll-SEQ  
‘(We) rolled snowballs...’  
Snowballs.MN.5

An example of both *seng* ‘tree’ and *khwé* ‘water’ being used to modify location words can be seen in (8b) and (8c) respectively.

- (8b) **Seng=é**            **cae=ró**            **jauya-dé**            **nak-sa.**  
tree=GEN      on=DAT      bird-SPEC      COP-IPFV  
‘There is a bird on top of the tree.’  
151016\_2.EL.2

- (8c) *Ngat tsikpa za-mo gae-s=é sago*  
 1SG anger angry-when go-LNMZ=GEN place  
*khwé(=é) tamar wen.*  
 water(=GEN) next EQ.COP  
 ‘When I’m angry, the place I go is next to the water.’  
 151023\_1.EL.67

Using genitive case is the most common way for speakers to encode object words which modify, which is an example of morphological markedness. The unit also occurs to the left of all words modified, which is a syntactic strategy on par with clause-final predicates. Note that the same optionality regarding multiple words forming one referential unit (cf 3.2.1) also applies to object words which modify.

### 3.3.3 Properties

Out of the three semantic classes, property words should be the least typologically marked when performing a modifying function. We established that there are two classes of property words in 3.2.3, one class which includes *zhindi* ‘red’ and *jikpala* ‘big’ and another which includes *kacan* ‘good’.

We saw in 3.2.3 that *kacan* ‘good’ cannot act as a reference without using a relativised copula. As this mimics how action words modify, the logical conclusion is that *kacan* ‘good’ will act similarly. This means that *kacan* ‘good’ will require a relativised copula to modify. An example of a different modifying property word which requires *na* ‘COP’ can be seen in (9a), *nyam* ‘hairy’. Notably, the relative clause follows the modified word.

- (9a) [*Tshae*            [[*yak*    *jikpa-la*]]            *nyam*    *nak-khan*]]  
 PROX.DET        yak        big-LA            hairy    COP-REL  
*Mak=é=gé*                *wen.*  
 Mark=GEN=PNMZ        EQ.COP  
 ‘The big and hairy yak is Mark’s.’  
 150828\_3.EL.41

(9a) also contains an example of how *jikpala* ‘big’ functions as a modifier. It occurs directly following the object word and retains the *-la* marking. *Jikpala* ‘big’ also precedes

the relativised clause containing *nyam* ‘hairy’.<sup>11</sup> Both property words have a clear syntactic position relative to the word that is modified.

Not all modifying properties require the *-la* affix. (6c) shows (repeated below) that *zhindi* ‘red’ can take the *-la* affix when modifying but (9b) shows that it can be equally grammatical for *zhindi* ‘red’ to occur without the affix.

(6c) [ *Utui*            *pecha* ***zhindi-la*** ]            [ *jikpa-la*            *wen* ].  
 DIS.IMM.DET    book    red-LA            big-LA            EQ.COP  
 ‘That red book is big.’  
 131112.EL.8

(9b) [ *Ngae*            *pecha* ***zhindi*** ]            [ *jikpa-la*            *wen* ].  
 1SG.GEN            book    red            big-LA            EQ.COP  
 ‘My red book is big.’  
 131122.EL.5

The first group of modifiers thus seems to have a clear syntactic definition. However, *zhindi* ‘red’ and *jikpala* ‘big’ differ as to the optionality of the *-la* suffix, with *zhindi* ‘red’ taking it in some cases but *jikpala* ‘big’ requiring it when modifying.

### 3.3.4 Summary

We have not clearly identified a least typologically marked group of words for the function of modification. A summary table of marking strategies can be seen in Figure 11. The classes of words from most to least marked are the second property word group, objects and actions, and the first property word group. This goes partially against predictions as property words should be the least marked but a subclass is the most typologically marked. Objects and actions are equally typologically marked, with both

---

<sup>11</sup> Note that these constructions are separate to a coordinate construction in Bumthang. Coordination requires two NPs (which encompass adjectives), with the first marked by *=ning* ‘and’, e.g. *pen jakpa-la-dé=ning kamta-la zon* ‘one fat pen and two thin ones’.

opting for a morphological and syntactic strategy to encode modification. Both use word order, while object words also use case and action words use a relativiser.

	Modification	Morphological	Syntactic
Objects	<i>mi=é</i> 'person's' <i>khwé=é</i> 'water's' <i>seng=é</i> 'tree's'	+	+
Actions	<i>ra-khan</i> 'who came' <i>kher-khan</i> 'who made' <i>thong-khan</i> 'who drank'	+	+
Properties <sub>1</sub>	<i>zhindi(-la)</i> 'red' <i>jikpa-la</i> 'big'	(+)	+
Properties <sub>2</sub>	<i>kacan nak-khan</i> 'good'	+	++

Figure 11: Modification in Bumthang

The first property class is the least marked or as equally marked as object words and action words. This definition depends on the optionality of *-la* and whether this is truly required for properties to occur in a modifying function.

As the first property class is maximally marked with the same amount of morphemes as modifying objects and actions, we can classify these words as 'core adjectives'. What we have also found, however, is that a second class of non-core adjectives exists in Bumthang.

### 3.4 Assessing Markedness across Semantic Classes

We have seen in Sections 3.1-3.3 that some semantic classes correlate with their predicted prototypical pragmatic function, while some do not behave as expected. A summary of how each semantic class behaves for each function can be found in Figure 12; as *kacan* 'good' was found to be non-core, it has not been included in the table.



	Reference	Modification	Predication
Objects	<i>mi</i> 'person' <i>khwé</i> 'water' <i>seng</i> 'tree'	<i>mi=é</i> 'person's' <i>khwé=é</i> 'water's' <i>seng=é</i> 'tree's'	<i>mi wen(-za)</i> 'is a person' <i>khwé wen(-za)</i> 'is water' <i>seng wen(-za)</i> 'is a tree'
Properties	<i>zhindi-la</i> 'red one'	<b><i>zhindi(-la)</i></b> 'red'	<i>zhindi wen(-za)</i> 'is red'
	<i>jikpa-la</i> 'big one'	<b><i>jikpa-la</i></b> 'big'	<i>jikpa na(k-sa)</i> 'is big'
Actions	<i>ra-thang</i> 'coming' <i>kher-thang</i> 'making' <i>thong-thang</i> 'drinking'	<i>ra-khan</i> 'who came' <i>kher-khan</i> 'who made' <i>thong-khan</i> 'who drank'	<b><i>ra(-s, -za)</i></b> 'come' <b><i>kher(-za)</i></b> 'make' <b><i>thong(-sa)</i></b> 'drink'

Figure 12: Semantic classes and prototypical functions in Bumthang

We can see from Figure 12 that we have clear correlations between less typological marking and 'core' groups of words. The 'core' groups of words are referential object words, modifying property words and predicative action words.

Something to take note of is that Croft predicts referential properties to be encoded by 'abstract de-adjectival nouns' (Croft 1991:67). What we find in Bumthang is contrary to this: referential property words are encoded almost entirely the same as modifying property words.

We have tentatively established three word classes based on the core groups of words found using the correlation of semantic classes and prototypical pragmatic functions. Chapter 4 will test these assumptions by examining the morphosyntactic distribution of each class to ascertain whether these classes are justified, or if they require further clarification.

## 4. Deeper Look

In this chapter, I will test the division of word classes generated using Croft's model of typological markedness in Chapter 3. In Chapter 3, we saw that Bumthang has three distinct groups of words, namely 'core' verbs, nouns and adjectives. This was done by examining the correlation between prototypical pragmatic functions and semantic classes.

I will use evidence from morphosyntactic distribution to attempt to establish the same word classes without appealing to semantic arguments. This will help to define word classes in Bumthang on a language-internal basis as opposed to the typological definition advanced in Chapter 3.

Section 4.1 first looks at the morphosyntactic distribution of verbs in Bumthang to re-establish the class. This is followed by an examination of nouns in 4.2 and adjectives in 4.3. A summary and discussion of the findings follows in 4.4.

### 4.1 Verbs

Chapter 3 showed that 'core verbs' in Bumthang are prototypical action words. When predicative, these action words required affixes which affected the listener's interpretation of the status of the event. This gives us a starting point for a morphosyntactic definition of the class.

#### 4.1.1 Morphosyntactic Marking

##### 4.1.1.1 Verbal Suffixes

In 3.1.1, we defined two affixes, *-s* and *-za*. In the same slot on the verb, we find five other ways that the verb can be inflected clause-finally, which is detailed in Figure 13 (for glosses, see Figure 14). Examples for all three action verbs are in Appendix 1.

	<i>kher</i>	<i>thong</i>	<i>ra</i>
	'make'	'drink'	'come'
-s	' <i>kher</i>	' <i>thong</i>	<i>ra-s</i>
-na	<i>kher-na</i>	<i>thong-na</i>	<i>ra-na</i>
-za	<i>kher-za</i>	<i>thong-za</i>	<i>ra-za</i>
-sang	<i>kher-sang</i>	<i>thong-sang</i>	<i>ra-sang</i>
-∅	<i>kher</i>	<i>thong</i>	<i>ra</i>
-sómo	<i>kher-zómo</i>	<i>thong-zómo</i>	<i>ra-zómo</i>
-ae	<i>kher-lae</i>	<i>thong-ae</i>	<i>shrae</i>

Figure 13: TAME affixes on action words

Examples (1-3) all encode an action *kher* 'make' which began and was completed in its entirety in the past. (1) describes an action carried out by the speaker and is marked by the -s affix on *kher* 'make' (realised as a high tone only); (2) describes an action carried out by a third person which the speaker knows about, realised as *kher-na*; (3) describes a natural event which the speaker has no involvement in, realised as *kher-zómo*.

- (1) *Dema sutla zhego zama=ning zhebai=ru 'kher.*  
yesterday eveningfood meal=and beans=DAT make.PFV.P  
'Last night, I made a meal with beans.'  
My Cooking.MN.2-4
- (2) ...*Charo=i zama-dé=ning khaw(a)=é shra-dé kher-na.*  
...friend=ERG meal-SPEC=and chicken=GEN meat-SPEC make-PFV.I  
'...my friend made a meal with chicken.'  
A Friend's Cooking.MN.2-3
- (3) *Da=né yoi=lé khwé oywa kher-zómo.*  
now=ABL rain=ERG water dirty make-PFV.N  
'So, the rain made the water dirty.'  
17XXXX.EL.39

However, (4) shows that these suffixes do not indicate a simple past tense, as *dema* 'yesterday' co-occurs with *kher-za*, which contains a different affix. *Kher-za* in (4) describes an event which has commenced, but does not mark an end.

- (4) *Dema*            *Yuk(a)=i*            *Nomé=ró*            *momo*            ***kher-za.***  
 yesterday        Yuka=ERG        Naomi=ALL        dumpling        make-IPFV  
 ‘Yesterday Yuka was making dumplings for Naomi.’  
 151114.EL.30

I will call this distinction perfective versus imperfective, with *-s* (1), *-na* (2) and *-sómo* (3) marking perfective aspect and *-za* (4) imperfective aspect. The perfective affixes make a further distinction between the egophoric suffixes *-s* and *-na* and the non-egophoric *-sómo*. The egophoric suffixes index speaker involvement, with *-s* expressing personal involvement and *-na* expressing a lack of personal involvement (Donohue and Wyatt, personal communication). *-Sómo* thus does not index any speaker involvement, or non-involvement. I term *-s* as ‘personal perfective’; *-na* as ‘impersonal perfective’ and *-sómo* as ‘neutral perfective’.

Both (5a-b) and (6a) encode events which have unrealised beginnings or, for (6b), a general state of being. In this thesis, I will be calling both ‘irrealis’, with *-sang* as an overt irrealis marker. The lack of segmental marking in (6a-b) does not necessarily mean that the stem is unmarked; further research is required to determine if these forms are tonally marked or simply bare verb stems.

- (5a) *Yamba*            *Trashi ngae*            *ama=ró*            *tropshra*  
 tomorrow        Tashi    1SG.GEN        mother=ALL        dinner  
***kher-sang=re.***  
 make-IRR.P=EVID  
 ‘Tomorrow Tashi says he’ll make dinner for my mother.’  
 150821\_4.EL.1

- (5b) *Ngat*    *churma*            ***thong-sang.***  
 1SG    beer                drink-IRR.P  
 ‘I will drink beer.’  
 151107\_2.EL.42

- (6a) *Nomé*    *khvak-gédé*        *nget*    *ja*            ***thong.***  
 Naomi    arrive-soon.as    1PL    tea            drink.IRR.I  
 ‘As soon as Naomi arrives, we’ll drink tea.’  
 170629.EL.44

(6b) ... *Gekap-nang=ning mi-gambo=i ra.*  
 ... country-in=ABL people-PL=ERG come.IRR.I  
 'People come from all over the country.'  
 Ura Festival.MN.38

The two irrealis forms are also distinguished for speaker involvement. *-Sang* encodes an event that the speaker intends to undertake or knows will happen (5a-b), and the unmarked verb stem encodes a general state of being or certainty (6a-b). To mirror the distinction made in the perfective, I am also classifying these affixes as personal and impersonal respectively.

(7a-b) show sentences in the imperative mood. Both (7a) and (7b) are inflected with a form of the affix *-(l)ae*. Some verbs have suppletive imperative forms, such as *ra* 'come' (> *shrae*) and *bu* 'do' (> *ba*).

(7a) *Yam bet kwi=wa kher-lae!*  
 road width bigger=COMP make-IMP  
 'Make the road wider!'  
 151009\_3.EL.21

(7b) *Nger=a churma thong-ae!*  
 1PL.EMPH=ABS beer drink-IMP  
 'Let's drink beer!'  
 151107\_2.EL.45

A summary of the suffixes and their associated categories can be seen in Figure 14. The presence of these suffixes provide one criterion for defining a verb class morphosyntactically.

	Personal	Impersonal
Perfective	-s	-na
	-sómo	
Imperfective	-za	
Irrealis	-sang	-∅
Imperative	-(l)ae	

Figure 14: Verbal inflections in Bumthang

#### 4.1.1.2 Verbal Prefixes

Another way to define verbs morphosyntactically in Bumthang is by the negative prefixes, *ma-* and *mé-*, which are primarily used to negate declarative verbs. For example, the declarative sentence in (8a) has four negated counterparts which have different aspect-evidentiality interpretations (8b-e). This means that the aspect-evidentiality paradigm shown in Figure 14 is reduced in the negative, with the suffixes marking impersonal perfective *-na* and personal irrealis *-sang* suffixes not attested.

However, the selection of negative prefix helps to identify the intended aspect-evidentiality distinction of the speaker. The personal perfective suffix is retained in (8b) and the verb takes the *ma-* prefix. An impersonal perfective interpretation is achieved by the combination of the imperfective affix *-za* and the *ma-* negative prefix in (8c). The negative equivalent of the imperfective uses the imperfective *-za* affix and the *mé-* negative prefix (8d). Finally, the egophoric distinction in the irrealis collapses, with the verb taking only the *mé* negative prefix (8e).

- (8a) *Auy(a)=i kashra krot.*  
fox=ERG deer hunt.IRR.I  
‘Foxes hunt deer.’  
160901.EL.35
- (8b) *Auy(a)=i kashra ma-kro-s.*  
fox=ERG deer NEG.P-hunt-PFV.P  
‘The fox didn’t hunt the deer (and I saw).’  
160901.EL.37
- (8c) *Auy(a)=i kashra ma-krot-sa.*  
fox=ERG deer NEG.P-hunt-IPFV  
‘The fox didn’t hunt the deer (from what I can tell).’  
160901.EL.38
- (8d) *Auy(a)=i kashra mé-krot-sa.*  
fox=ERG deer NEG.NP-hunt-IPFV  
‘The fox is not hunting the deer.’  
160901.EL.39

- (8e) *Auy(a)=i kashra mé-krot.*  
fox=ERG deer NEG.NP-hunt.IRR.I  
‘The fox will not hunt the deer.’ ‘The fox does not hunt the deer.’  
160901.EL.40/41

Through the combination of a negative prefix and the reduced set of TAME affixes, the impersonal-personal contrast is maintained for the perfective, whilst the contrast is lost in the irrealis (Peck, Donohue et al. 2016). This is summarised in Figure 15.

	Personal	Impersonal
Perfective	<i>ma-...-s</i>	<i>ma-...-za</i>
Imperfective	<i>mé-...-za</i>	
Irrealis	<i>mé-...</i>	

Figure 15: Negative TAME paradigm (adapted from (Peck, Donohue et al. 2016))

Figure 15 shows that *ma-* and *mé-* are in contrastive distribution, with *ma-* only occurring with perfective aspect suffixes and *mé-* occurring elsewhere. Upon the distribution modelled in Figure 15, I will term *ma-* as the perfective negative prefix and *mé-* as the non-perfective negative prefix<sup>12</sup>.

These affixes are restricted elsewhere in the language. *Ma-* ‘NEG.P’ is the sole negative prefix attested in imperative sentences (9). Verbs marked with the sequential marker *-sé* (10a) cannot take either prefix. To express the idea, verbs are instead encoded as infinitives which select *mé-* ‘NEG.NP’ to mark negation (10b).

- (9) *Khwé oywa wen-za. Ma-thong-ae!*  
water dirty COP-IPFV NEG.P-drink-IMP  
‘The water is dirty. Don’t drink it!’  
17XXXX.EL.35

- (10a) *Yak-dé kar chong-zé mé-ra=re.*  
yak-SPEC run run-SEQ NEG.NP-come=EVID  
‘The yak is not coming while running.’  
151023\_1.EL.147

<sup>12</sup> The neutral perfective suffix *-sómo* is not attested with either affix in the corpus. As we have not systematically tested for the negative equivalent, I have left the suffix out of the discussion.

- (10b) *Yak-dé kar mé-chong=ó ra=re.*  
 yak-SPEC run NEG.NP-run=ALL come=EVID  
 ‘The yak is coming not in a running way.’  
 1151023\_1.EL.128

Relative clauses use *ma-* ‘NEG.P’ to negate (11), as do patientive nominalisations (12).

The presence of negative prefixes in these nominalisation structures help us determine the aspectual interpretation of the subordinate clause. In these examples, I interpret the subordinate clause as perfective.

- (11) *Ma-glap-khan Trom wen.*  
 NEG.P-hit-REL Tom EQ.COP  
 ‘The one who didn’t hit was Tom.’  
 151009\_1.EL.77

- (12) *Mak aji=yang ma-bran-ba=na*  
 Mark who=also NEG.P-know-PTNMZ=LOC  
*mae=ning jong-zé gae-zómo.*  
 house=ABL come.out-SEQ go-PFV.N  
 ‘Mark left the house without anyone knowing.’  
 161104.EL.17

Negative prefixes are a good test for main verbs in a clause, and a decent test for verbs in subordinating constructions. In combination with the TAME suffixes explored in 4.1.1.1, we find ourselves with a set of basic morphosyntactic criteria which should define ‘verbhood’ in Bumthang.

#### 4.1.1.3 Other affixes

Apart from the TAME suffixes and negative prefixes detailed in 4.1.1.1 and 4.1.1.2, other affixes help us define verbs in non-clause-final positions. These affixes include the sequential suffix *-sé* and subordinate clause markers.

The sequential suffix *-sé* is used for multiple functions in Bumthang. It encodes co-occurring events, explanations for the action in the main clause, and the manner of



doing the main verb (functioning like a manner adverb). As mentioned briefly in 4.1.1.2, verbs marked by the sequential suffix *-sé* cannot take negative prefixes.

Subordinate clause markers in Bumthang include the relativiser *-khan*, the patientive nominaliser *-pa*, locative nominaliser *-sa* and the infinitive *=tó*. The relativiser *-khan* enables verbs to act as references and modifiers (cf 3.2.2 and 3.3.1) and can only be negated using *ma-* ‘NEG.P’ (cf 4.1.1.2).

The patientive and locative nominalisers and the infinitive take full clauses (e.g. (13a)) and turn them into a phrase that acts referentially (13b<sup>13</sup>). All verbs which can be relativised or nominalised occur with the same TAME paradigm defined in 4.1.1.1 when acting as the predicate of a main clause.

(13a) *Utui mi momo 'kher.*  
 DIS.IMM.DET person dumpling make.PFV.P  
 ‘That person made dumplings.’  
 151114.EL.93

(13b) *Utui mi kher-b(a)=é momo ngam-za.*  
 DIS.IMM.DET person make-PTNMZ=GEN dumpling taste.good-IPFV  
 ‘The dumplings that person made taste good.’  
 151114.EL.95

#### 4.1.2 Defining non-action words

Using non-semantic criteria allows to expand our definition of ‘verbs’ beyond prototypical action words. This section will examine morphosyntactic subgrouping of verbs and characteristics of each subclass.

##### 4.1.2.1 Action Words

Our definition of ‘action words’ so far has consisted of a set of characteristics defined by Croft – relational, dynamic, transitory, and nongradable – and three exemplars from

<sup>13</sup> The process of clausal nominalisation for these two suffixes is the same as the process used by the action nominaliser *-thang*, described briefly in 3.2.2.

Bumthang, *thong* ‘drink’, *kher* ‘make’ and *ra* ‘come’. Other words which fit these semantic criteria exist in Bumthang, such as words to describe highly transitive actions like hitting (*glap* ‘hit’, *thung* ‘hit’, *drang* ‘hit’, *shrar* ‘hit’) or cutting (*tup* ‘cut’, *thim* ‘cut down’, *let* ‘cut off’, *shik* ‘cut grass’). These words can be marked with the morphosyntactic strategies defined in 4.1 and we can thus define them as ‘verbs’.

Other examples of verbs which carry less prototypical ‘action’ meanings include *ta* ‘see’, *nyan* ‘listen’ and *dot* ‘sleep’, which inflect in the same way. These verbs form a subgroup whose lexical aspect involve the inception of an action. In (14), we see that the proposition encoded is that of having entered the state of sleeping.

- (14) *Dona dot-sé na.*  
 Donna sleep-SEQ COP  
 ‘Donna is still asleep.’  
 130902.EL.32

#### 4.1.2.2 Non-action Words

##### 4.1.2.2.1 Inchoative-Causative Verbs

Another subset of verbs indicates the beginning of a change of state, such as *men* ‘become ripe’ (15a-b) and *tsha* ‘become hot’ (16a-b). in (15a), we see *men* ‘become ripe’ with the comparative enclitic =*wa* to encode a change of state predicate with *gae-na* ‘became’. (15b) has *men-na* ‘became ripe’ modified by *namésamé* ‘very’. This demonstrates that the meaning of *men* is the inchoative ‘become ripe’ rather than the stative ‘be ripe’, as the verbs can be marked with perfective aspect (indicating a completed action) and take the intensifier *namésamé* ‘very’ to indicate the degree of the change.

- (15a) ... *carchung mirip-gam zhra-ma=re men=wa gae-na.*  
 ... raspberry-PL what-APPROX=EVID ripen=COMP go-PFV.I  
 ‘The raspberries are getting somewhat riper.’  
 Raspberry.MN.3

(15b) *Tshae cae namésamé=rang men-na.*  
 PROX.DET banana very=EMPH ripen-PFV.I  
 ‘This banana is overripe.’  
 170911.EL.96

These verbs are unlikely to take the personal affixes *-s* ‘PFV.P’ and *-sang* ‘IRR.P’ with non-agentive subjects. However, when an agent is expressed, the verbs take on a causative meaning. In (16a), *tsha* ‘become hot’ takes a patientive subject *ngat* ‘me’, while (16b) has both an agentive subject *Maki* ‘Mark’ and a patientive object *khwé* ‘water’. (16b) is the causative construction. Due to the two different constructions available to the same verb, these verbs can be defined as ‘inchoative-causatives’.

(16a) *Ngat tsha-za.*  
 1SG heat-IPFV  
 ‘I’m hot.’  
 130826.EL.93

(16b) ***Mak=i*** *khwé tsha-za.*  
 Mark=ERG water heat-IPFV  
 ‘Mark is heating up water.’  
 160421\_2.EL.18

#### 4.1.2.2.2 Experiencer Verbs

Verbs which denote experiences make up another subclass. These verbs take a single argument which fulfils the semantic role of stimulus. However, the verb also implies an experiencer, which is not overtly realised as a grammatical function. This experiencer is often understood to be the speaker (17a).

(17a) *Wii jom-b=é momo ‘ngam.*  
 2SG.ERG fold-PTNMZ=GEN dumpling taste.good.PFV.P  
 ‘The momo you folded tasted delicious.’  
 151114.EL.20

If the speaker wants someone else to be understood as the implied experiencer, they must include a subordinate clause in which that person is explicitly coded as the experiencer (17b). The speaker must then show that this is someone else’s experience

by using an evidential marker attached to the experiencer verb. As such, the experiencer verbs do not take the *-na* 'PFV.I' affix.

- (17b) *Goni*            *kher-khan*        *thrami*            ***Trom=i***        ***zu-zi***  
 3SG.ERG            make-REL        chilli.cheese    Tom=ERG        eat-SEQ  
***ta-zi***            *ngam-za=re.*  
 try-SEQ            taste.good-IPFV=EVID  
 'Tom says the thrami she made is delicious.'  
 170629.EL.31

Additionally, the verbs are not marked with *-sang* 'IRR.P', as this affix marks intention of an agent, which is incongruent with a stimulus subject and implied experiencer. A separate construction must instead be used to encode an irrealis time reference (17c).

- (17c) *Trom=i*            *jom-khan*        *momo*            ***ngam-de=gé***        *na.*  
 Tom=ERG            fold-REL        dumpling        taste.good-VOL=PNMZ    COP  
 'The dumplings Tom's folding will taste good.'  
 161104.EL.9

#### 4.1.2.2.3 Comparative Verbs

Comparative verbs are like experiencer verbs in that they do not take the *-na* 'PFV.I' and *-sang* 'IRR.P' affixes. This subclass of verbs has comparison as an inherent part of its meaning. As such, sole arguments are understood as being 'more X' than an unexpressed standard, such as in (18a). If the standard is expressed as in (18b), it is marked with a comparative clitic to make the comparison explicit.

- (18a) *Utui*            ***kar-za.***  
 DIS.IMM.DET    brighter-IPFV  
 'That is lighter.'  
 170911.EL.80

- (18b) *Utui*            *pecha=wa*        *kawang*            ***kar-za.***  
 DIS.IMM.DET    book=COMP    lid                brighter-IPFV  
 'The lid is lighter than that book.'  
 170911.EL.81

#### 4.1.2.2.4 Copulas

Copulas can also be defined as verbs, albeit with highly reduced clause-final TAME marking, and suppletive negative forms. The only TAME affix found on these verbs is the *-za* affix, which is used for imperfective aspect on action verbs. On copulas, the *-za* affix marks personal evidentiality (i.e. seeing something in real life), and the lack of an affix implies an impersonal evidentiality for both copulas (Wyatt 2017). Both copulas can be relativised and be subordinated to different extents.

*Wen*, the equative copula, relates two syntactically equal arguments. In (19a), *wen* equates *ngat* ‘me’ with *drukning* ‘from Bhutan’. It cannot be relativised or used as an infinitive but it can be subordinated in some constructions (notably, the patientive nominalisation). Its negative form is *min*, which can take the imperfective affix (19b) as well as occur in constructions that *wen* ‘EQ.COP’ cannot, like relative clauses (19c).

(19a) *Ngat druk=ning wen.*  
1SG Bhutan=ABL EQ.COP  
‘I’m from Bhutan.’  
150828.EL.10

(19b) *Tshae tshali zhindi min-za.*  
PROX.DET orange red NEG.EQ.COP-IPFV  
‘This orange isn’t red.’  
151009\_3.EL.40

(19c) *Katherin=i kher-khan min-khan-gambo ngam-za.*  
Catherine=ERG make-REL NEG.EQ.COP-REL-PL taste.good-IPFV  
‘The ones which aren’t the ones Catherine made taste good.’  
151114.EL.9

When *na* ‘COP’ is inflected with *-za* ‘IPFV’, the verb is realised as *naksa*. This implies the root of the copula is *nak*, which is then realised as *na* when a speaker wants to encode impersonal evidentiality. The copula is used existentially (20a), in predicates (20b) and in genitive constructions in conjunction with a dative-marked possessor (20c).

- (20a) *Nor brang-nang=ó nak-sa.*  
 cow cowshed-in=DAT COP-IPFV  
 ‘The cow is in the cowshed.’  
 150814\_4.EL.18
- (20b) *Utui mi kacan na.*  
 DIS.IMM.DET person good COP  
 ‘That person is good.’  
 150828\_3.EL.72
- (20c) *Tshéning “Wai wedo shram nak-sa...*  
 then wow 2SG.DAT shoes COP-IPFV  
 ‘Then the gretpo said, “Wow, you have shoes...”  
 Gretpo.MN.13

A perfective or irrealis interpretation of *na* ‘COP’ can be achieved by using auxiliaries: *nyit* ‘sit, stay’ for the perfective (20d) and *ra* ‘come’ for the irrealis (20e). These auxiliaries are negated like action verbs<sup>14</sup> but *na* ‘COP’ uses a suppletive negative form *mót* ‘NEG.COP’ (20f).

- (20d) *Boni tshena nyit-na.*  
 Bonnie PROX.LOC COP.PFV-PFV.I  
 ‘Bonnie was here.’  
 160901.EL.65
- (20e) *Yamba yak krong=ó ra.*  
 tomorrow yak village=DAT COP.IRR  
 ‘Tomorrow, a yak will be in the village.’  
 150814\_1.EL.34
- (20f) *Yak krong=ó mótsa.*  
 yak village=DAT NEG.COP-IPFV  
 ‘There is no yak in the village.’  
 150814\_1.EL.35

#### 4.1.3 Conclusion

Section 3.4 showed that a set of ‘core’ verbs can be established because they were the least morphosyntactically marked when functioning as a predicate. The core verbs

<sup>14</sup> The negative prefixes that attach to each auxiliary are limited to their respective aspect. Therefore, *nyit* ‘was’ can only be negated with *ma-* ‘NEG.P’ as it encodes perfective aspect and *ra* ‘will be’ is negated with *mé-* ‘NEG.NP’.

carried overt marking for all other functions. Combined with the evidence in this section, we can define this class more robustly.

Morphologically, verbs in a predicative function show two properties: they have suffixes which bear aspectual and evidential meanings (4.1.1.1) and they have negative prefixes (4.1.1.2). Syntactically, verbs occur sentence-finally in pragmatically unmarked clauses (cf 3.1.1). This clear morphosyntactic evidence lets us easily identify language-specific criteria for verbhood.

We can extend membership of the 'verb' class in a principled way to include non-action words with the same morphosyntactic properties. This helps us include subclasses like inchoative verbs, experiencer verbs and comparative verbs (although notably, there is no standard stative verb subclass). This makes the word class 'verb' independent of semantic criteria.

The different subclasses of verbs in Bumthang show that 'verbhood' is a spectrum. At one end, there are prototypical action verbs which fulfil semantic criteria like those in Chapter 3 and take all main clause TAME affixes. At the other end, there are less typical verbs which cannot be inflected with the full TAME paradigm like copulas or comparative verbs. These verbs are also far more complicated semantically, with some verbs implying semantic arguments and others encoding aspect and evidentiality requirements, which affect the inflectional possibilities of the verb.

## 4.2 Nouns

This section will endeavour to establish morphosyntactic criteria to define nouns. In Chapter 3, we found that we could define nouns as object words which were least typologically marked when performing a referential function. We also saw that nouns could optionally co-occur with other words, and take case.

#### 4.2.1 Objects and Non-Objects

In Chapter 3, we investigated noun marking using three prototypical object words: *mi* ‘person’, *khwé* ‘water’ and *seng* ‘tree’. These words were defined as non-relational, stative, inherent and non-gradable.

If we wish to add non-prototypical object words to our tentative noun class, we should use morphosyntactic criteria. As there is no obligatory marking applied to nouns when they are used to refer, we must use the distributional tests for nouns when they are predicative or modifying. If a word can occur in a predicate with *wen* ‘EQ.COP’, and can function as a modifier marked with *=é* ‘GEN’, we can classify it as a noun.

Some object words which we can unproblematically include are terms such as *khwi* ‘dog’, *gor* ‘stone’, *brasma* ‘buckwheat’ and *mémboza* ‘woman’. We can also add words which did not meet our original semantic definitions. For example, relational words such as *ama* ‘mother’ and *aba* ‘father’ (21a), and the more abstract *emba* ‘left’ and *eba* ‘right’ (21b) take genitive case when acting as modifiers. This widens our definition of nouns beyond basic semantic principles.

(21a) **Ab(a)=é**      *kae=ró*      *tshang-dé*      *ker-zé*      *nak-sa ...*  
father=GEN      back=DAT      basket-SPEC      carry-SEQ      COP-IPFV  
‘The father is carrying a basket on his back...’  
Man and Cow.MN.3

(21b) *Mae*      *leng=é*      **eb(a)=é**      *lokso*      *nak-sa.*  
house      field=GEN      right=GEN      side      COP-IPFV  
‘The house is on the right of the field.’  
150807\_5.EL.8

#### 4.2.2 Co-occurrence

Although we can define nouns morphosyntactically when predicating or modifying, we are yet to be able to firmly define them when referring. Nouns require no obligatory morphosyntactic marking to function referentially in a sentence, but there are optional



morphosyntactic markers which help to define nouns. This section will consider what syntactic strategies are used to encode nouns, i.e. what types of words co-occur with nouns.

#### 4.2.2.1 Determiners

Nouns can be directly preceded by a determiner, as in (22a). However, a relative clause can occur between the determiner and the noun (22b). Example (22a) shows the determiner being used as a discourse deictic and *utui* ‘that’ in (22b) indicates a physical referent.

(22a) ***Osaе***            *momo*            *mé-ngam-za.*  
 PROX.IMM.DET    dumpling        NEG.NP-taste.good-IPFV  
 ‘This dumpling doesn’t taste good.’  
 151114.EL.96

(22b) *Wii*            [***utui***            [*lu*    *thung-khan*]    *mi*]    *thung-ba?*  
 2SG.ERG        DIS.IMM.DET    song    do-REL        person see-TAG.Q  
 ‘Do you see that person who is singing?’  
 170629.EL.5

The determiners indicate a noun’s location in the physical world and in discourse. Bumthang determiners are marked for two distinctions: distance and immediacy. Distance is separated into distal and proximate; and immediacy is separated into immediate and non-immediate (or unmarked). This forms a two-by-two paradigm, as in Figure 16. The determiners in Bumthang are related to a wider demonstrative system throughout the language which makes similar distinctions.

	Proximate	Distal
Immediate	<i>osaе</i>	<i>utui</i>
Non-immediate	<i>tshae</i>	<i>tui</i>

Figure 16: Bumthang Determiners

#### 4.2.2.2 Possessives

In Chapter 3 we saw that object words can be modified. The way nouns modify other nouns is using genitive case, although plain noun compounds exist (cf 4.2.2.2.1). The distribution of how the modifier occurs in relation to the noun will help define the position of nouns in a sentence.

Possessives occur before the noun. There are no instances of possessives and determiners co-occurring in the corpus, so it can be hypothesised that they occur in the same prenominal slot. Possessives can consist of a noun (23a) or a pronoun (23b), both marked by genitive case. Possessives precede relative clauses when they occur prenominally (23b).

(23a) *Ngai yak=é bri nam-za.*  
1SG.ERG yak=GEN smell smell-IPFV  
'I smell a yak.'  
150807\_6.EL.32

(23b) ***Goné*** *gon mae=ró lok-khan pecha kacan na.*  
3SG.GEN 3SG house=DAT read-REL book good COP  
'His book that he read at home is good.'  
131112.EL.36

##### 4.2.2.2.1 Compounds

A special case of possession is nominal compounds. In nominal compounds, two words with closely related meanings can form a phrase without mandatory genitive case.

However, this is in free variation with the two words linked by the overt case marking. A

good example of this is the compound 'buckwheat flour' as found in the Making

Bramnyai text, rendered as *brasmé phi* with the genitive marking in (24a), but also as

*brasma phi* or *bras phi* in faster speech as in (24b).

(24a) *Tshéning*      **brasm=é**                      **phi**  
 then                      buckwheat=GEN                      flour  
*bramnyai*              *kher-sharang*      *phat.*  
 bramnyai              make-if                      good.IRR.I  
 ‘So, it’s good when you make bramnyai with buckwheat flour.’  
 Making Bramnyai.MN.10

(24b) *Tshén*      **bras phi**                                      *bramnyai*              *kher-mo,*  
 next      buckwheat.flour                      bramnyai              make-when  
*tshae*                      **brasma phi,**                                      *na=ró=rang,*  
 PROX.DET              buckwheat.flour                      first=DAT=EMPH  
*khwé du-gidi*              *tshéning*              **bras phi**                                      *yok*      *bu-zi,*  
 water      boil-as.soon.as      then                      buckwheat.flour                      add      do-SEQ  
 ‘Next, when you make buckwheat bramnyai, the buckwheat flour ... first, boil  
 the water and then add the buckwheat flour, and ...’  
 Making Bramnyai.MN.49-52

#### 4.2.2.3 Numerals

A class of numerals occurs following the noun. These numerals include cardinal numbers<sup>15</sup> (25a), with lower numbers able to take an approximative suffix *-ma*<sup>16</sup> (25b). There is a set of two numerals which have a restricted usage, *bleng* and *gwa*. These numerals appear to be a remnant of an older counting system and used in a limited sense with round objects and a selected few other lexemes (*bong* ‘height’, *shram* ‘arm span’, *tshang* ‘basket’) (25c).

(25a) [*Rap*      **sum**]      *lab-ae.*  
 time      three      say-IMP  
 ‘Say it three times.’  
 150828.EL.1

(25b) *Trung kro*      *trung rap*      **sum-ma-dé**                                      *kro...*  
 rice      wash      rice      time      three-APPROX-SPEC                      wash...  
 ‘Then I washed the rice, around three times...’  
 My Cooking.MN.8

<sup>15</sup> A set of ordinal numbers up to hundred exist in Bumthang, but are loans from Dzongkha. They occur in the same position as the cardinal numerals.

<sup>16</sup> Other words such as the indefinite pronoun *zhra* ‘what, some’ can also take the approximative suffix. When affixed, *zhra* indicates a measurement of time or quantity, i.e. ‘sometime’ or ‘somewhat’.

(25c) *Tshang*            **bleng** *nak-sa*.  
 basket            one.CL COP-IPFV  
 ‘There’s a basket.’  
 Man and Cow.MN.5

The plural suffix *gambo* also counts as a member of this class, despite not having full lexical status. It does not co-occur with any of the numerals discussed above and has the same position distributionally, i.e. post-nominal (25d). (25e) shows that *-gambo* indicates a ‘similative’ plural as it can denote “a class of objects sharing similar features” (Daniel and Moravcsik 2013).

(25d) **Mi-gambo**    *namésamé*    *plak-sa*.  
 person-PL    very            squeal-IPFV  
 ‘The people are squealing a lot.’  
 130916.EL.6

(25e) *Tshén* **banggala phi, trawa, tsha-gambo** *tshén...*  
 then chilli.powder pepper salt-PL            then  
 ‘Then take the chilli powder, pepper and salt...’  
 Making Bramnyai.MN.63

#### 4.2.2.4 Adjectives

Adjectives occur post-nominally, as seen in Chapter 3. They directly follow the noun, preceding not only numerals (26a), but also post-nominal relative clauses (26b) and quantifiers (26c). More information about the class itself can be found in Section 4.3.

(26a) *Ngado*            *pen*    **jakpa-la**            *zon*    *na*.  
 1SG.DAT            pen    fat-LA            two    COP  
 ‘I have two fat pens.’  
 150904\_5.EL.49

(26b) [*Tshae*            [[*yak jikpa-la*]            *nyam nak-khan*]]  
 PROX.DET    yak    big-LA            hairy    COP-REL  
*Mak=é=gé*                      *wen.*  
 Mark=GEN=PNMZ            EQ.COP  
 ‘The big and hairy yak is Mark’s.’  
 150828\_3.EL.41

(26c) ... *goné*            *mae=ró*            *khwi chetpo-dé*            *na.*  
 ... 3SG.GEN    house=DAT    dog    grand-SPEC    COP  
 ‘...and at his house, there was a massive dog.’  
 Scary Dog.MN.1

#### 4.2.2.5 Relative Clauses

Relative clauses can appear both pre-nominally and post-nominally. Pre-nominal relative clauses are more likely to express an overt agent and be restrictive than post-nominal clauses.

Pre-nominal relative clauses follow possessives and determiners, therefore occur in the directly pre-nominal position (cf example 22b in 4.2.2.1). Post-nominal relative clauses (27a) occur after adjectives but before numerals (cf adjective subclass ordering in 3.3.3, example 19c in 4.1.2.2.4). Internally-headed relative clauses are also possible (27b).

(27a) *Osaé*            *khwi cingku-la*            *namésamé*            *shruk bu-zi*  
 PROX.IMM.DET dog    small-LA            very            loud do-SEQ  
*tsek-khan*            *Mak=é=gé*                      *wen-za.*  
 bark-REL            Mark=GEN=PNMZ            EQ.COP-IPFV  
 ‘This small dog that is barking very loudly is Mark’s.’  
 151114.EL.81

(27b) *Yuk(a)=i*            *pudu*                      *kher-khan*  
 Yuka=ERG            noodles                      make-REL  
*Katherin=i*            *Siva=ró*                      *bi-s.*  
 Catherine=ERG Siva=DAT                      give-PFV.P  
 ‘Catherine gave the noodles Yuka made to Siva.’  
 151114.EL.38

#### 4.2.2.6 Quantifiers

Quantifiers in Bumthang are an under-researched part of the language. Currently, the class appears to be comprised of the universal quantifier *dangsanga* (which loosely

translates to ‘all’ in English) and the specifier *dé* which occurs as both an affix and a free form. Other words which fit in to this slot include *pét* ‘some’ and *zat* ‘all’.

The quantifiers are always in a post-nominal position on the right-most side, directly before case. This means qualifiers follow adjectives, relative clauses and numerals when they co-occur like in (28).

- (28) *Nor=i*            *zama-gambo*    ***dangsanga***    *zu-zumo.*  
 cow=ERG          meal-PL          UNIV            eat-PFV.N  
 ‘The cow ate all the food.’  
 Naughty Cow.MN.5

#### 4.2.2.7 Phrase Structure

We now have a list of six separate groups of words which co-occur with nouns. These words occur in specific positions in relation to nouns and in relation to each other. This suggests that they comprise a Noun Phrase, with the noun as the head. The structure of this phrase is shown in Figure 17, with all elements optional bar the noun.

(Poss | Det) (RC) (N) N (Adj) (RC) (Num) (Quant)

Figure 17: Noun Phrase

However, this does not syntactically define nouns themselves, as a phrase structure only helps us to define nouns positionally. The fact that these other words are optional means that the definition cannot help us in our quest to find an overt morphosyntactic definition for nouns.

#### 4.2.3 Case

A morphosyntactic strategy that may be used to define nouns is that of case. As nouns require genitive case to function as modifiers (cf 3.3.1), I will start by looking at genitive case marking, before looking at other cases.

#### 4.2.3.1 Genitive

In example (30a), the genitive case is attached to *mae* ‘house’. However, what modifies *jinda* ‘owner’ is not solely the noun *mae* ‘house’ but also the determiner *tshae* ‘this’.

When considering the noun phrase structure in Figure 17, this means that a whole noun phrase modifies the noun *jinda* ‘owner’. This strategy is not uncommon in the Himalayas, as Kurtöp uses the same construction (Hyslop 2017).

- (30a) *Tshae*            *mae=lé*            *jinda* *ngat* *wen*.  
 PROX.DET        house=GEN        owner 1SG    EQ.COP  
 ‘I am the owner of this house.’  
 160421\_2.EL.11

There is a second implication of the genitive attaching to *mae* ‘house’ but scoping over *tshae* ‘PROX.DET’. This is that genitive marking attaches to the **noun phrase**, not just the noun. This hypothesis is testable by looking at the distribution of the genitive marking on post-nominal elements within the noun phrase.

We can see in sentences (30b) and (30c) that the genitive attaches to the rightmost element within the noun phrase. In (30b), it is a relative clause; (30c) it is on a numeral.

This means that case attaches to a noun phrase, rather than a noun.

- (30b) [*Ngae*            *khwi*    *osae-na*                    *nak-khan]=é* *ming*  
 1SG.GEN        dog    PROX.IMM.DET-LOC    COP-REL=GEN    name  
*Flash* *wen*.  
 Flash   EQ.COP  
 ‘The name of my dog over there is Flash.’  
 151114.EL.66

- (30c) [...*dangjur*    *thung-mo,*]  
 [...javelin        do-when,]  
 ... [*mi*            *zon]=é*            *bar=tó*            *thung*.  
 ... person        two=GEN            between=DAT    do.IRR.I  
 ‘[when you throw javelins], ... you throw them between two people.’  
 Javelin Game.MN.5-6

#### 4.2.3.2 Ergative

Bumthang has other case enclitics, such as the ergative (=i), locative (=na), dative (=tó) and ablative (=ning). Of these, the ergative is the most widespread throughout the language and will be the focus of this section.

Ergative case marks subjects of a transitive clause. In (31a), *ama* ‘mother’ is overtly marked with the ergative case to show that it is the subject of the sentence.

(31a) **Am(a)=i**      *uzu bu-zi*      *Trom khawa sud=u bi-s.*  
mother=ERG    force do-SEQ    Tom    chicken kill=INF CAUS-PFV.P  
‘Mother forced Tom to kill the chicken.’  
160630\_3.EL.11

In (31a), *Trom* ‘Tom’ and *khawa* ‘chicken’ do not carry any case marking. Although Tom is the subject of the subordinate clause, the ergative case marking is assigned only once by the main predicate and Tom is unmarked. *Khawa* ‘chicken’, as a patient, does not take any case affixes.

It is not true that patients do not take case marking. A set of pronouns in Bumthang overtly mark absolutive case. As we see in (31b), the patient *goncera* ‘her’ is overtly marked with the absolutive enclitic =a<sup>17</sup>. It follows that patients are normally interpreted with an absolutive case assignment by speakers despite not being overtly marked.

(31b) **Pem(a)=i**      **goncer=a**      *glaf.*  
Pema=ERG      3SG.EMPH=ABS      hit.PFV.P  
‘Pema hit herself.’  
131021.EL.24

The optional lack of morphosyntactic marking required by nouns to act referentially that we found in Chapter 3 needs to be further qualified. Firstly, noun phrases which consist

---

<sup>17</sup> This set of pronouns are used as reflexive pronouns but also in other situations for emphasis, hence the gloss. See example 7b in this chapter.



minimally of a noun – and those that do not – can take case when referring. Secondly, the lack of overt case on some noun phrases does not mean an absence of case. Instead, this lack of marking is interpreted by speakers to be absolutive case.

#### 4.2.3.3 Headless Noun Phrases

The hypothesis that a noun is the minimal realisation of a noun phrase means we must also re-examine predicate nouns. In (32a), the phrase *gaesé sago* ‘place I go’ is equated with *khwé tamar* ‘next to the water’, illustrating the fact that *wen* ‘EQ.COP’ asserts that one NP is equal to another.

- (32a) *Ngat tsikpa za-mo [gae-s=é sago] [khwé(=é) tamar] wen.*  
 1SG angry-when go-LNMZ=GEN place water(=GEN) next EQ.COP  
 ‘When I’m angry, the place I go is next to the water.’  
 151023\_1.EL.67

However, we also find noun phrases without an overtly expressed noun functioning as the complement to *wen*. In (32b), the determiner *osae* is the only expressed word within the second noun phrase in the sentence.

- (32b) [*Ngai yawa zhindi ngui-khan tiru*] [*osae*] *wen.*  
 1SG.ERG carrot buy-REL money PROX.IMM.DET EQ.COP  
 ‘This is the money I bought carrots with.’  
 131104.EL.48

Other parts of speech can act as the sole realisation of a noun phrase. In (32c), there are two headless noun phrases, one consisting of *tshae* ‘this’ and the other of *nyonde* ‘black’.

- (32c) [*Tshae*] [*nyonde*] *wen.*  
 PROX.DET black EQ.COP  
 ‘This is black.’  
 130902.EL.38

Headless noun phrases also take case. The determiner *tshae*, when substituting for a genitive-marked noun phrase, is encoded as *tshaci* as in (32d). The numeral *thék* ‘one’ in (32e) is used as a substitute for the chicken and the monkey respectively.

(32d) ***Tshaci***      *cae=ró*      *banggala=ning lambenda ...*  
 PROX.GEN      on=DAT      chilli=and      tomato  
 ‘On top of that, chillies and tomato...’  
 A Friend’s Cooking.MN.13-14

(32e) *Tshén khawa=ning pra goné zon*  
 next chicken=and monkey 3PL two  
***thék=i***      *nentra yas=tó gae*  
 one=ERG day work=ALL go  
***thék=i***      *zhego kher-zé...*  
 one=ERG food make-SEQ  
 ‘So, the chicken and the monkey, the two of them – the latter goes to work and the former makes food...’  
 Monkey and the Hen.MN.3-5

We now have another problem. Not only does case define noun phrases instead of nouns, we are unable to define noun phrases as always being headed by nouns. The justification of nouns as a separate word class is becoming more and more rocky.

#### 4.2.4 Expanding the definition

Despite the lack of a good definition for the word class of nouns, the morphosyntactic definition of a noun phrase allows us to group together less obvious nominals. Other words which occur in the noun phrase include postpositions, time words and nominalisations.

Postpositions include location words which appear to have grammaticised from body parts such as *dong* ‘face, in front of’ and *kae* ‘lower back, behind’. They also include other location terms such as *cae* ‘on’ and time-related words such as *na* ‘first in line’ and *juk* ‘end’, which become to *na=ró* ‘before’ and *jug=u* ‘after’ when case-marked. More

traditional time-related words such as *duzum* ‘today’ can be included as nominal, as they can take the genitive case.

Nominalisations such as action nominalisations are also marked with case, thus occur within an NP (cf 3.2.2). In (33a), the action nominalisation *tshoro cingkul cingkul thupthang* ‘cut small like that’ is marked with the locative, and functions as the argument of see. (33b) features a clause subordinated by the patientive nominaliser *-pa*<sup>18</sup>, which is marked with genitive case =*é* to modify *momo* ‘dumpling’.

(33a) [*tshoro cingkul cingkul thup-thang*]=*na ta-nané...*  
 like.that small~RED cut-ANMZ=LOC see-COND  
 ‘If you look at the way he’s cutting (the dough) into small pieces ...’  
 Making Momo.MN.5

(33b) [*Wii jom-b(a)*]=*é momo*  
 2SG.ERG fold-PTNMZ=GEN dumpling  
*namésamé ’ngam.*  
 very taste.good.PFV.P  
 ‘The dumplings you folded tasted very good.’  
 151114.EL.22

#### 4.2.5 Conclusion

Our aim for this section was to come up with morphosyntactic criteria to define nouns in Bumthang. The two possibilities which were investigated, namely the syntactic distribution of elements which co-occur with nouns, and case, did not provide any conclusive way to define ‘nounhood’ in Bumthang.

What is apparent from the investigation of how case appears in Bumthang is that case is marked on a NP level, not on a word level. This means that case as a morphosyntactic criteria defines ‘noun phrasehood’ rather than ‘nounhood’. Since there are no

---

<sup>18</sup> The patientive nominaliser *-pa* is likely related to the nominalising suffix of the same form which is common in the Himalayas. There is a growing body of work which references this affix in Tibeto-Burman languages, such as Noonan 1997, DeLancey 2002, Genetti et al. 2008 and Schackow 2013.

morphosyntactic criteria that identify the  $X^0$  noun, rather than the XP noun phrase, positing a large class of nouns is untenable: the argument relies solely on the evidence of a subset of nouns selecting classifiers (see 4.2.2.3), and the occurrence of nouns as the head in a noun phrase (despite the fact headless noun phrases are possible). This means that positing a word class 'noun' seems like more of an analytic crutch for linguists rather than a morphosyntactic reality of the language (cf Dryer 1997).

We are, however, also able to define 'not nounhood'. Nouns do not exhibit the same behaviour as verbs or adjectives within a noun phrase, nor the same behaviour as numerals or determiners. Nouns form an 'elsewhere' class – if you occur in a noun phrase and do not belong to a more specific word class, you are a noun.

### 4.3 Adjectives

This section will explore the morphosyntax of adjectives in Bumthang, and determine whether we are able to justify an adjective class separate from nouns and verbs.

Chapter 3 showed that there is evidence for two separate adjective classes, based on differences in morphosyntactic marking, with the adjectives requiring the copula when modifying as the more marked subclass of the two. The adjectives which take the *-la* suffix when modifying constitute the 'core' adjectives of the class. Both groups of adjectives form predicates in the same way, with the use of a copula, but they exhibit different morphosyntax when used to modify.

To further explore the status of the adjective class, I will first expand our semantic definition of adjectives and investigate the subgrouping that arose in Chapter 3, before comparing adjectival predicates to verbal and nominal predicates.

#### 4.3.1 Properties and non-properties

'Core' adjectives were defined as relational, stative, inherent and gradable concepts (Chapter 3). We used three property terms (*kacan* 'good', *zhindi* 'red' and *jikpala* 'big') in the initial investigation into adjectives. I propose to add to this 'core' adjective group by examining ways in which Bumthang encodes common cross-linguistic property meanings and seeing how they are distributed morphosyntactically.

Dixon (1982) proposes seven semantic categories which are encoded with adjectives cross-linguistically: dimension, physical property, colour, human propensity, age, value and speed. Examples of these words in Bumthang can be seen in Figure 18.

Of these words, Bumthang encodes dimension, age, colour and some physical property terms with adjectives which take *-la* like *jikpala* and *zhindi*; and value terms are often encoded like *kacan*. Compounds using ideophones commonly encode physical property terms, and little investigation has been done into human propensity terms. Speed is normally encoded by words which closest resemble *kacan* in distribution.

Category	English	Bumthang
Dimension	big	<i>jikpala</i>
	little	<i>cingkula</i>
	long	<i>ringshing</i>
	short	<i>tingkula</i>
	thick	<i>dola (/dokla/)</i>
	thin	<i>ngrapjila</i>
Physical property	hot	<i>tshan, tshanma</i>
	cold	<i>ngakpa</i>
	light	<i>yang soma, yang somsom</i>
	heavy	<i>jut taktak</i>
	soft	<i>jam zupzup</i>
	hard	<i>krakkrak</i>
	sweet	<i>nyokpo, nyok domdom</i>
	sour	<i>trunma</i>
Colour	black	<i>nyonde</i>
	white	<i>karti</i>
	red	<i>zhindi</i>
	yellow	<i>sirti</i>
	blue	<i>ngundi</i>
Human propensity	likeable	<i>ga toga</i>
Age	new	<i>sarba</i>
	young	<i>shronpo, shronba</i>
	old	<i>gatpo</i>
Value	good	<i>kacan</i>
	proper	<i>rimo</i>
	delicious	<i>ngam toga</i>
Speed	fast	<i>jokta</i>
	slow	<i>dwége</i>

Figure 18: Bumthang Adjectives

### 4.3.2 Subclasses

#### 4.3.2.1 'Na' class

The first subclass I will investigate is what I am terming the 'na' class, i.e. the adjectives which cannot occur without the copula *na*. These adjectives form a predicate with *na* 'COP' and require *nak-khan* 'COP-REL' to act referentially and as a modifier.

Out of all the adjectives I have found in Bumthang, there are only three which I believe to belong to this class that are underived. They are *kacan* ‘good’, *rimo* ‘proper’ and *nyam* ‘hairy’. Other modifiers which take *nak-khan* ‘COP-REL’ include partial and complete reduplications like *ringshing* ‘long’ and *temtem* ‘full’; and compounds *nyok domdom* ‘sweet’, *po zingzing* ‘hairy’, *sir wangwang* ‘yellowish’, *tsiwa denden* ‘sticky’, *kak tega* ‘bitter’ and *kha tsha* ‘spicy’ (lit. ‘hot mouth’). Apart from *kha tsha* ‘spicy’, the other phrases all involve ideophones, which sometimes modify a verb (e.g. *nyok* ‘taste sweet’) or a noun (e.g. *po* ‘body hair’). Whether the two word compounds should be counted as part of the ‘na’ class is debateable, due to their bipartite nature.

These adjectives also can occur with other common verbal predicates. *Kacan* ‘good’ frequently co-occurs with *bu* ‘do’ to mean ‘do well’ or ‘be well’, and forms part of the formulae for goodbye *kacan buzi galae* (lit. ‘go well’) and *kacan buzi nyilae* (lit. ‘stay well’)<sup>19</sup>. *Ngam toga* ‘delicious’ can combine with *gae* ‘become’ to make the predicate *ngam toga gae* ‘make/become delicious’.

#### 4.3.2.2 ‘La’ class

The other class of adjectives can loosely be called the ‘la’ adjectives, as they take the *-la* affix. This subclass involves most of the adjectives I have found in Bumthang, including those which fall into the basic meaning classes of age, value and dimension proposed by Dixon (1982).

As discussed in Chapter 3, the ‘la’ adjective class does not take the eponymous suffix when predicative, but requires the *-la* suffix when acting referentially and sometimes uses the *-la* affix when modifying. The adjectives can also encode manner of a predicate

---

<sup>19</sup> The formula used to farewell depends on the movement of the speaker and listener. If the speaker is moving away from the listener, the speaker will say *kacan buzi nyilae* ‘stay well’. If the listener leaves the speaker, the speaker will say *kacan buzi galae* ‘go well’.

through reduplication (33a). Due to the fast rate of speech and preference for disyllabic words, the final *a* of the *-la* suffix is dropped.

- (33a) [ *tshoro*            *cingkul cingkul thup-thang* ] = *na*            *ta-nané...*  
 like.this            small~RED            cut-ANMZ=LOC            see-COND  
 ‘If you look at the way he’s cutting (the dough) into small pieces ...’  
 Making Momo.MN.5

Most adjectives of this class contain one of a set of four endings: *-pa*, *-po*, *-ku* and *-té* (and their allophonic variants). Some examples of adjectives with each of the endings can be seen in Figure 19. Many of these words have more than a passing resemblance to some verbs in the inchoative and experiencer subclasses – e.g. *shirba* ‘wet’ is clearly related to *shir* ‘to wet’ and *nyokpo* ‘sweet’ looks like *nyok* ‘to taste sweet’. The *-pa* ending is likely related to the patientive nominaliser ending in Bumthang; and *-po* may be related to DeLancey’s proposed Tibeto-Burman proto-gender system (DeLancey 2002).

Ending	Word
<i>-pa</i>	<i>jakpa</i> ‘fat’
	<i>shirba</i> ‘wet’
<i>-po</i>	<i>gatpo</i> ‘old’
	<i>nyokpo</i> ‘sweet’
<i>-ku</i>	<i>cingku</i> ‘small’
	<i>tingku</i> ‘short’
<i>-té</i>	<i>karti</i> ‘white’
	<i>nyonde</i> ‘black’

Figure 19: ‘La’ Adjective Endings

#### 4.3.2.2.1 The affix *-la*

The identity of the affix *-la* is still very much a puzzle. Hyslop claims that it is an ‘individuator’ in Kurtöp, the language spoken directly to the north-east of Bumthang (Hyslop 2017). In Bumthang, it is clearly associated with notions tied to reference, as the more referentially an adjective is used, the more likely it is to be marked with *-la*. As I



have not decided on one single interpretation, I have simply glossed the affix as ‘LA’ throughout the thesis.

Within the ‘la’ adjective class, there are clear tendencies of different adjectives to take or to not take the *-la* affix. Words which end in *-pa* and *-ku* such as *jikpa* ‘big’, *jakpa* ‘fat’, *cingku* ‘small’ and *tshaku* ‘salty’ will more readily take the *-la* affix when modifying nouns (34a) as opposed to adjectives like *chetpo* ‘grand’ which do not normally take *-la* (34b). Words ending in *-po* such as *chetpo* ‘large’ instead require highly marked contexts such as negative sentences and further emphatic marking (34c).

(34a) *Ngado pen jakpa-la zon na.*  
 1SG.DAT pen fat-LA two COP  
 ‘I have two fat pens.’  
 150904\_5.EL.49

(34b) *Bum chetpo-dé(=é) nang=ó wen-za.*  
 forest grand-SPEC=GEN in=DAT EQ.COP-IPFV  
 ‘It’s inside a grand forest.’  
 Misty Forest.MN.2

(34c) *Tshae mae chetpo-la=rang min.*  
 PROX.DET house large-LA=EMPH NEG.EQ.COP  
 ‘That house isn’t the biggest.’  
 151009\_3.EL.13

The group of five adjectives which end in *-té* all designate colour terms (*zhindi* ‘red’, *nyonde* ‘black’, *karti* ‘white’, *sirti* ‘yellow’, *ngundi* ‘blue/green’). These adjectives have no clear preference for *-la* (34d-e). The *-té* ending found on these adjectives likely has some relation to the specifier found in the noun phrase (4.2.2.6), suggesting the words are more nominal in nature. This gives a possible reason for why *zhindi* ‘red’ formed a predicate with *wen* ‘EQ.COP’ in 3.1.3, using the same strategy object words use to act as predicates.

- (34d) *Tshae*            ***nyonde***            *wen.*  
PROX.DET            black            EQ.COP  
‘This is black.’  
130902.EL.38
- (34e) ***Nyonde-la***            *wen.*  
black-LA            EQ.COP  
‘It’s black.’  
130902.EL.40

### 4.3.3 Distinguishing adjectives

So far, this section has discussed the differences in morphosyntactic marking between subclasses of adjectives. We now move to a discussion of how we can differentiate a class of adjectives from the class of verbs or class of nouns, and see if there is justification for a separate word class.

#### 4.3.3.1 Adjectives versus Verbs

The environment where the differences between adjectives and verbs is clearest is main clause predication. As discussed in Chapter 3, adjectives require the copula *na*, itself a verb, to form a predicate. Verbs, however, only require TAME marking to predicate (cf 3.1.4).

Other environments which differentiate verbs and ‘la’ adjectives include modification, where the ‘la’ class of adjectives is marked accordingly and verbs must utilise relative clauses (cf 3.3.4).

#### 4.3.3.2 Adjectives versus Nouns

We are also able to morphosyntactically distinguish adjectives from nouns in predicates. However, we cannot systematically differentiate the two classes within noun phrases, apart from the fact that nouns do not form relative clauses like the ‘na’ adjectives nor take the *-la* affix at any time.

The main way to differentiate adjectives and nouns is in ‘change of state’ predicative constructions. In (35a), the end state or goal is encoded by a noun phrase marked by allative case. (35b) shows how the ‘goal’ adjective is encoded with no extra marking. The verbal counterpart can be seen in (35c), where the verb takes the comparative clitic =*wa*. This gives us a clear three-way contrast between the major word classes.

(35a) *Nam gun khwé khitpa=ró gae-na.*  
 winter water ice=ALL go-PFV.I  
 ‘In winter, water turned to ice.’  
 160616.EL.2

(35b) *Ruk tshaku gae-na.*  
 curry salty go-PFV.I  
 ‘The curry got salty.’  
 151030.EL.95

(35c) *Mirip nyo=wa gae-na.*  
 berry sweet=COMP go-PFV.I  
 ‘The berry got sweeter.’  
 151030.EL.96

#### 4.3.3.3 Comparatives and Superlatives

Other morphosyntactic constructions which are commonly linked with adjectives are comparatives and superlatives. In comparative constructions, two objects are compared with respect to a property, and one of them is judged to be a better example of the adjective. In superlatives, multiple objects are compared with respect to a property, and one is selected as an exemplar. In English, these two concepts are encoded morphologically with ‘-er’ or ‘-est’ affixed to the adjective, and syntactically with ‘more’ and ‘most’, respectively.

Verbal comparisons in Bumthang are encoded by using *mangwa* ‘more’, itself formed with a comparative verb *mang* ‘more than’ and the comparative clitic *wa*. This helps to distinguish verbs which have translational equivalents in English adjectives, such as *men* ‘ripen’ (36).

- (36) *Utui=wa tshae cae mang=wa men-na.*  
 DIS.IMM.DET=COMP PROX.DET banana more=COMP ripe-PFV.I  
 ‘This banana has ripened more than that one.’  
 170911.EL.35

It was noted in 4.3.2.2 that many adjectives in the ‘la’ class resembled verbs from the subclasses of inchoatives and experiencers. Many adjectives also share forms and meanings with verbs from the comparative verb class, such as *nyonde* ‘black’ (*nyo* ‘darker’), *cingku* ‘small’ (*cing* ‘smaller’), *ringshing* ‘long’ (*réng* ‘longer’) and *gatpo* ‘old’ (*gan* ‘older’).

This resemblance is not simply superficial. Simplex comparative constructions do not allow use of the adjective, instead requiring the comparative verb counterpart (37a-b).

- (37a) *Utui réng-za.*  
 DIS.IMM.DET longer-IPFV  
 ‘That is longer.’  
 170911.EL.32

- (37b) *Utui banggala=wa tshae banggala réng-za.*  
 DIS.IMM.DET chilli=COMP PROX.DET chilli longer-IPFV  
 ‘This chilli is longer than that chilli.’  
 170911.EL.30

The adjective can only be used in a more elaborate construction which shifts the comparison to a subordinate clause, leaving the main clause as a regular adjectival predicate (37c). The standard is expressed as a noun phrase marked with =*ning* ‘COM’.

- (37c) *Utui seng tshae seng=ning bu-mo,*  
 DIS.IMM.DET tree PROX.DET tree=COM do-when  
*ringshing na.*  
 long COP  
 ‘When you compare that tree with this tree, that tree is tall.’  
 130923.EL.4

The construction in (37c) is also used by adjectives without a comparative verb counterpart, like *sarba* ‘new’ in (37d). The adjective *sarba* ‘new’ has no related verb despite ending in *-pa*. It therefore requires the subordinate clause construction to make a comparison.

- (37d) *Utui*                *mae=ning*        *bu-mo*  
 DIS.IMM.DET    house=COM    do-when  
*tshae*                *mae sarba wen.*  
 PROX.DET        house new    EQ.COP  
 ‘When you compare this house with that house, this house is new.’  
 170911.EL.106

Not all adjectives have a fully functional comparative verb counterpart. *Zhindi* ‘red’ has a verbal counterpart in *zhi* ‘redder’(?), however this is unable to function as a main predicate (38a). Instead, *zhi* ‘redder’ must be marked with the comparative clitic and occur in a sentence with the copula to encode ‘be redder’ (38b).

- (38a) \**zhi-za*  
 red-IPFV  
 170911.EL.124

- (38b) *Guli*    *cingku-la=wa*                *guli*    *jikpa-la zhi=wa*                *nak-sa.*  
 ball    small-LA=COMP                ball    big-LA red=COMP                COP-IPFV  
 ‘The big ball is more red than the small ball.’  
 170911.EL.83

Some words have a relationship with comparative verbs with different forms. *Kacan* ‘good’ uses the verb *drak* ‘better’ in comparative structures (39a).

- (39a) *Utui*                *pecha=wa*        *tshae*                *pecha drak-sa.*  
 DIS.IMM.DET    book=COMP    PROX.DET        book    better-IPFV  
 ‘This book is better than that book.’  
 170911.EL.110

Different adjectives can form comparisons using the same verb. For example, many adjectives which denote dimension use the verb *kwi* ‘more (dimension)’ to compare.

The adjectives which use *kwi* ‘more (dimension)’ to compare include *jikpa* ‘big’, *kakpa* ‘big (produce)’, *betcaela* ‘wide’, *dola* ‘thick’ and *pentang* ‘flat’ (39b).

- (39b) *Utui=wa*                      *tshae*                      *tshali kakpa kwi-za*.  
 DIS.IMM.DET=COMP    PROX.DET                      orange big                      more-IPFV  
 ‘This orange is bigger than that one.’  
 170911.EL.28

Superlative constructions also use many of these comparative verbs. There are two ways in which Bumthang forms superlatives, one with a dedicated affix. (40a) and (40b) show the construction with the affix, where the comparative verb (and its relevant adjective in the case of (40b)) is nominalised with *shó* (allophonically *shu*) and then is marked with the emphatic clitic *rang*. This affix is common in languages of the area such as Tibetan (Mark Donohue, personal communication).

- (40a) ***Drak-shó=rang***                      *tshae*                      *pecha wen*.  
 better-SUP=EMPH                      PROX.DET                      book                      EQ.COP  
 ‘The best one is this book.’  
 170911.EL.111

- (40b) ***Jikpa kwi-shu=rang***                      *amcukuli*                      *wen*.  
 big                      more-SUP=EMPH                      mango                      EQ.COP  
 ‘The biggest one is the mango.’  
 170911.EL.112

This construction is not open to all comparative verbs. *Cingku* ‘small’ which has a common verbal counterpart in *cing* ‘smaller’, cannot form a superlative with the *shó* affix (40c). Speakers must use the second construction, which is formed by using a *-la* marked adjective which takes the emphatic clitic *=rang* (40d). This is the construction used by most adjectives.

- (40c) \****Cing-shu=rang***                      *tshae*                      *banggala*                      *wen*.  
 smaller-SUP=EMPH                      PROX.DET                      chilli                      EQ.COP  
 170911.EL.116

(40d)	<i>Cingku-la=rang</i>	<i>tshae</i>	<i>banggala</i>	<i>wen.</i>
	small-LA=EMPH	PROX.DET	chilli	EQ.COP
	'The smallest one is this chilli.'			
	170911.EL.115			

#### 4.3.4 Conclusion

This section has demonstrated that we have enough morphosyntactic proof to propose a third major class of words in Bumthang, the adjective class. The adjective class is demonstrably different from nouns and verbs when predicative, as adjectives take *na* 'COP' to form predicates and can occur without further morphosyntactic marking in 'change of state' predicates.

There are two separate subclasses within the adjective class, one which requires the copula *na* ('na' class) and one which can take the affix *-la* ('la' class). The nature of the eponymous *-la* affix is uncertain; however, it appears to be linked to the nature of reference and markedness in some fashion.

A large part of the general adjective class appears to have relations to some subclasses of verbs, namely experiencers, inchoatives and comparatives. This may help explain why adjectives are more typologically marked in referential or modifying functions as seen in 3.4, as the roots of many adjectives would thus be verbal.

This etymological relation to verbs creates a word class which is inherently morphosyntactically marked by the set of four endings (*-po*, *-pa*, *-ku*, *-té*). Using adjectives in comparative constructions requires an additional subordinate clause, which comparative verbs do not need. The extra morphological marking appears to be related to noun phrase specifiers and nominalisation suffixes.

Despite being more morphologically marked, the adjective class is less semantically marked than its corresponding verbal counterparts. Adjectives like *shirba* 'wet' do not

encode the beginning of a state – rather, they are encoding a state itself. *Nyokpo* ‘sweet’ does not require an experiencer and *ringshing* ‘long’ does not require the implied standard its associated verb *réng* ‘longer’ encodes. This may be a reason why a class which is clearly etymologically related to verbs arose in Bumthang, as it provides a way for speakers to encode concepts such as states, which is absent in the verb class.

#### 4.4 Conclusion

This chapter investigated the claim put forward in Chapter 3, that three major word classes were definable based on typological markedness. Through applying morphosyntactic criteria, three things were easily defined: verbs, adjectives and noun phrases.

Verbs are definable morphosyntactically without reference to semantics. For example, verbs are the only words in Bumthang which can take the TAME paradigm defined in 4.1.1.1 and the negative prefixes described in 4.1.1.2. Verbs can also be relativised and nominalised using markers discussed in 4.1.1.3.

With a strong morphosyntactic definition, we can extend membership of the verb class to non-prototypical verbs. Through this process, verb subclasses such as experiencer verbs and comparative verbs which exhibited different morphosyntactic behaviours to prototypical ‘action’ verbs could be included.

Adjectives are also well-defined morphosyntactically. Adjectives use the copula *na* to form predicates, and combine directly with auxiliary verbs to denote a change in state. Morphosyntactic behaviour in reference and modifying roles leads us to posit two subclasses of adjectives, the ‘na’ class and ‘la’ class.



The adjective class is generally more morphosyntactically marked in use. This is related to how many adjectives are derived from subclasses of verbs. However, adjectives are less semantically than their verbal counterparts as adjectives do not encode all the implied semantic information of their roots, like experiencers, lexical aspect and comparisons.

Compared to verbs and adjectives, a word class of nouns is impossible to define. Instead, the morphosyntax of Bumthang defines a noun phrase on the basis of case marking and word order. This phrase can contain other parts of speech such as numerals, quantifiers, determiners and adjectives.

Despite this, it is useful analytically to posit a class of nouns, as heads of noun phrases.

When a noun is not realised in a noun phrase (a headless noun phrase), it is usually because the reference is understood from context. Additionally, Chapter 3 showed us that the least typologically marked reference was an object word without overt case.

We may not be able to define a class of nouns using morphosyntax but pragmatics leads us to hypothesise one exists, as an 'elsewhere' class within the noun phrase.

We thus have a system of three major word classes: verbs, nouns and adjectives. These classes can be established in a principled manner without reference to the semantics of the words involved.

## 5. Conclusion

The aim of this thesis was to establish a system of major word classes in Bumthang in a principled manner. We have been able to ascertain that verbs and adjectives have both clear functional and morphosyntactic distributions and can be asserted to constitute a word class in Bumthang. Both classes feature multiple subclasses, some of which tie these two major word classes more closely together.

Nouns form a word class in Bumthang insofar as they exist as a head of a noun phrase, which is used more frequently and flexibly within the syntax of Bumthang. As headless noun phrases are common within the language as well, we cannot define nouns as the minimal realisations of noun phrases. Therefore, we can posit a noun class in Bumthang for analytic reasons but are unable to truly test for the class itself. However, as other elements within the noun phrase are more morphosyntactically defined, nouns are definable as ‘things which are not part of other word classes’.

The investigation into the status of these three classes has shown us that word class organisation in Bumthang is anything but straightforward. It helps us position Bumthang within word class studies in the Himalayas, which also have similarly weak morphosyntactic justification for noun classes. It seems that the lack of evidence for nouns is not due to a lack of effort on the linguists’ parts; simply, there is a lack of a definition provided by the languages themselves.

This study into word classes is not without its limitations. As most of the data was sourced from a single speaker, further work with other speakers would help weed out any idiolectal influence. Furthermore, as the Ura dialect is the least ‘standard’ out of the four Bumthang dialects, work with speakers of other varieties could help generalise and standardise this work across all dialects of the language.

The work has also concentrated on the three major word classes acknowledged by linguists: verbs, nouns and adjectives. There is a growing amount of evidence that shows that ideophones could be conceived of as a separate word class, which was not investigated here due to time and space constraints.

What this investigation has also uncovered is a curious lack of basic stative verbs within the language, while having at the same time a special set of comparative verbs which imply a semantic standard. From initial investigation of other Himalayan languages, these comparative verbs are more widespread than originally thought. This may mean that stative verbs in the Himalayas are also rarer than believed, which may have theoretical implications and is worth future study.

Research into word classes has waxed and waned over the past few millennia. With the increased documentation of minority languages and increased interest in typology, it is my hope that this study of Bumthang word classes joins a plethora of future studies into organisation of words from languages far and wide.

## Appendix: Action Words

- (1a) *Dema sutla zhego zama=ning zhebai=ru 'kher.*  
 yesterday eveningfood meal=and beans=DAT make.PFV.P  
 'Last night, I made a meal with beans.'  
 My Cooking.MN.2-4
- (1b) *Trom=i churma 'thong.*  
 Tom=ERG beer drink.PFV.P  
 'Tom drank beer.'  
 151107\_2.EL.38
- (1c) *Tsimini caksai tra-zi gae-mo-né*  
 moreover chain break-SEQ become-when-ABL  
*khwi shror-zé ra-s.*  
 dog escape-SEQ come-PFV.P  
 '...and the chain broke, and the dog escaped and came for me.'  
 Scary Dog.MN.5
- (2a) *...Charo=i zama-dé=ning khaw(a)=é shra-dé kher-na.*  
 ...friend=ERG meal-SPEC=and chicken=GEN meat-SPEC make-PFV.I  
 '...my friend made a meal with chicken.'  
 A Friend's Cooking.MN.2-3
- (2b) *Dona=i jus dangsanga thong-na.*  
 Donna=ERG juice all drink-PFV.I  
 'Donna drank all the juice.'  
 130902.EL.86
- (2c) *Yuk(a)=i Nomé(=é) namdo ra-na.*  
 Yuka=ERG Naomi(=GEN) thought come-PFV.I  
 'Yuka thought of Naomi.'  
 161021.EL.36
- (3a) *Da=né yoi=lé khwé oywa kher-zómo.*  
 now=ABL rain=ERG water dirty make-PFV.N  
 'So, the rain made the water dirty.'  
 17XXXX.EL.39
- (3b) *Shap thong-zómo.*  
 king drink-PFV.N  
 'The king drank.'  
 151009\_8.EL.13

- (4a) *Dema Yuk(a)=i Nomé=ró momo kher-za.*  
 yesterday Yuka=ERG Naomi=ALL dumpling make-IPFV  
 ‘Yesterday Yuka was making dumplings for Naomi.’  
 151114.EL.30
- (4b) *Ngat khwé nokpa thong-za.*  
 1SG water cool drink-IPFV  
 ‘I’m drinking cold water.’  
 151002\_6.EL.11
- (4c) *Darung tau thungi bomé-dé=ng saekal thung bu-zi ra-za.*  
 again from.far.away girl-SPEC=also bicycle PRFM do-SEQ come-IPFV  
 ‘Again, a girl is coming from far away on her bike.’  
 Pear Story.MN.67
- (5a) *Yamba Trashi ngae ama=ró tropshra*  
 tomorrow Tashi 1SG.GEN mother=ALL dinner  
*kher-sang=re.*  
 make-IRR.P=EVID  
 ‘Tomorrow Tashi says he’ll make dinner for my mother.’  
 150821\_4.EL.1
- (5b) *Ngat churma thong-sang.*  
 1SG beer drink-IRR.P  
 ‘I will drink beer.’  
 151107\_2.EL.42
- (6a) *Nomé khvak-gédé nget ja thong.*  
 Naomi arrive-soon.as 1PL tea drink.IRR.I  
 ‘As soon as Naomi arrives, we’ll drink tea.’  
 170629.EL.44
- (6b) *... Gekap-nang=ning mi-gambo=i ra.*  
 ... country-in=ABL people-PL=ERG come.IRR.I  
 ‘People come from all over the country.’  
 Ura Festival.MN.38
- (7a) *Yam bet kwi=wa kher-lae!*  
 road width bigger=COMP make-IMP  
 ‘Make the road wider!’  
 151009\_3.EL.21
- (7b) *Nger=a churma thong-ae!*  
 1PL.EMPH=ABS beer drink-IMP  
 ‘Let’s drink beer!’  
 151107\_2.EL.45

- (7c) *Zu bu-zi shrae!*  
eat do-SEQ come.IMP  
‘Eat, then come!’  
150918\_5.EL.4
- (8) *Dara tshéning ngat gae-di yau ma-ra-s.*  
now next 1SG go-SPEC up NEG.P-come-PFV.P  
‘I couldn’t run any further.’  
Scary Dog.MN.10
- (9a) *Auy(a)=i kashra kro-s.*  
fox=ERG deer hunt-PFV.P  
‘The fox hunted the deer (and I saw).’  
160901.EL.30
- (9b) *Auy(a)=i kashra krot-na.*  
fox=ERG deer hunt-PFV.I  
‘The fox hunted the deer (from what I can tell).’  
160901.EL.31
- (9c) *Auy(a)=i kashra krot-sang.*  
fox=ERG deer hunt-IRR.P  
‘The fox will hunt the deer.’  
160901.EL.34
- (9d) *Auy(a)=i kashra krot.*  
fox=ERG deer hunt-IRR.I  
‘Foxes hunt deer.’  
160901.EL.35
- (10a) *Auy(a)=i kashra ma-kro-s.*  
fox=ERG deer NEG.P-hunt-PFV.P  
‘The fox didn’t hunt the deer (and I saw).’  
160901.EL.37
- (10b) *Auy(a)=i kashra ma-krot-sa.*  
fox=ERG deer NEG.P-hunt-IPFV  
‘The fox didn’t hunt the deer (from what I can tell).’  
160901.EL.38
- (10c) *Auy(a)=i kashra mé-krot-sa.*  
fox=ERG deer NEG.NP-hunt-IPFV  
‘The fox is not hunting the deer.’  
160901.EL.39

(10d) *Auy(a)=i*      *kashra*      *mé-krot.*  
fox=ERG      deer      NEG.NP-hunt.IRR.I  
'The fox will not hunt the deer.' 'The fox does not hunt the deer.'  
160901.EL.40/41

## 6. References

- Ameka, F. (1992). "Interjections: The universal yet neglected part of speech." Journal of Pragmatics **18**(2-3): 101-118.
- Andvik, E. (2010). A grammar of Tshangla. Leiden, Brill.
- Baker, M. C. (2003). Lexical categories: Verbs, nouns and adjectives. Cambridge, Cambridge University Press.
- Bartee, E. L. (2007). A grammar of Dongwang Tibetan. PhD, University of California, Santa Barbara.
- Bhat, D. (1994). The adjectival category: criteria for differentiation and identification. Amsterdam, John Benjamins.
- Bohnemeyer, J. and P. Brown (2007). "Standing divided: dispositionals and locative predications in two Mayan languages." Linguistics **45**(5-6): 1105-1151.
- Brown, P. (1994). "The INs and ONs of Tzeltal locative expressions: The semantics of static descriptions of location." Linguistics **32**(4-5): 743-790.
- Chomsky, N. (1970). "Remarks on nominalization." Readings in English transformational grammar.
- Chomsky, N. (1975). Questions of Form and Interpretation. The Scope of American Linguistics. R. Austerlitz. Lisse, Peter De Ridder Press.
- Chomsky, N. (1981). Lectures on Government and Binding. Dordrecht, Foris Publications.
- Croft, W. (1990). "A conceptual framework for grammatical categories (or: a taxonomy of propositional acts)." Journal of Semantics **7**(3): 245-279.
- Croft, W. (1991). Syntactic categories and grammatical relations: The cognitive organization of information. Chicago, University of Chicago Press.
- Croft, W. (2000). Parts of speech as language universals and as language-particular categories. Approaches to the Typology of Word Classes. P. M. Vogel and B. Comrie. Berlin, Mouton de Gruyter: 65-102.
- Croft, W. (2005). "Word classes, parts of speech, and syntactic argumentation." Linguistic Typology **9**(3): 431-441.
- Daniel, M. and E. Moravcsik (2013). The Associative Plural. The World Atlas of Language Structures Online. M. S. Dryer and M. Haspelmath. Leipzig, Max Planck Institute for Evolutionary Anthropology.
- DeLancey, S. (2002). Relativization and nominalization in Bodic. Annual Meeting of the Berkeley Linguistics Society.
- Dixon, R. M. W. (1982). Where have all the adjectives gone? : and other essays in semantics and syntax. Berlin ; New York, Mouton.
- Dixon, R. M. W. (2004). Adjective classes: A cross-linguistic typology. Oxford, Oxford University Press.
- Dixon, R. M. W. and A. Y. Aikhenvald (2003). Word: a typological framework. Word. R. M. W. Dixon and A. Y. Aikhenvald. Cambridge, Cambridge University Press: 1-41.
- Donohue, C. and M. Donohue (2016). "On ergativity in Bumthang." Language **92**(1): 179-188.
- Dryer, M. S. (1997). "Are grammatical relations universal." Essays on language function and language type: 115-143.
- England, N. C. (2004). Adjectives in Mam. Adjective classes: A cross-linguistic typology. R. M. W. Dixon and A. Y. Aikhenvald. Oxford, Oxford University Press: 125-146.



Evans, N. and S. C. Levinson (2009). "The myth of language universals: language diversity and its importance for cognitive science." Behav Brain Sci **32**(5): 429-448; discussion 448-494.

Fry, A. H. and B. Faddegon (1939). "Studies on Pāṇini's grammar." Journal of the American Oriental Society **59**(1): 135-207.

Genetti, C., A. Coupe, E. Bartee, K. Hildebrandt and Y.-J. Lin (2008). "Syntactic aspects of nominalization in five Tibeto-Burman languages of the Himalayan area." Linguistics of the Tibeto-Burman area **31**(2).

Genetti, C. and K. Hildebrandt (2004). The two adjective classes in Manange. Adjective Classes: A cross-linguistic typology. R. M. W. Dixon and A. Y. Aikhenvald. **1**: 74.

Goddard, C. (2005). The languages of East and Southeast Asia: An introduction. Oxford, Oxford University Press.

Haspelmath, M. (2001). Word classes and parts of speech. International Encyclopedia of the Social and Behavioral Sciences. N. J. Smelser and P. B. Baltes. Oxford, Elsevier. **24**: 16538-16545.

Haspelmath, M. (2012). "How to compare major word-classes across the world's languages." Theories of everything: In honor of Edward Keenan: 109-130.

Hengeveld, K. (1992). Parts of speech. Layered structure and reference in a functional perspective: Papers from the Functional Grammar Conference, Copenhagen, 1990. P. Harder, M. Fortescue and L. Kristoffersen. New York, John Benjamins Publishing Company: 29-55.

Hildebrandt, K. (2004). A grammar and glossary of the Manange language.

Hildebrandt, K. A. (2007). "Prosodic and Grammatical Domains in Limbu." Himalayan Linguistics **8**.

Hopper, P. J. and S. A. Thompson (1984). "The discourse basis for lexical categories in Universal Grammar." Language **60**(4): 703-752.

Hyslop, G. (2017). A Grammar of Kurtöp. Leiden, Brill.

Jackendoff, R. (1977). X-bar syntax: A study of phrase structure. Cambridge, MA, MIT Press.

Jacobsen, W. (1979). Noun and verb in Nootkan. The Victoria conference on northwestern languages.

Kinkade, M. D. (1983). "Salish evidence against the universality of 'noun' and 'verb'." Lingua **60**(1): 25-39.

Kiparsky, P. (1995). Pāṇinian linguistics. The Encyclopedia of Language and Linguistics. Oxford, Pergamon Press: 2918-2923.

Kuipers, A. H. (1968). "The categories verb-noun and transitive-intransitive in English and Squamish." Lingua **21**: 610-626.

Langacker, R. W. (1987). "Nouns and Verbs." Language **63**(1): 53-94.

Lee, S.-W. (2011). Eastern Tamang Grammar Sketch. MA.

Li, C. and S. Thompson (1981). A functional reference grammar of Mandarin Chinese. Berkeley, University of California Press.

Martin, S. E. and Y.-S. C. Lee (1969). Beginning Korean. New Haven, Yale University Press.

Michailovsky, B. and M. Mazaudon (1994). Preliminary notes on the language of the Bumthang group. 6th Seminar of the International Association for Tibetan Studies, Fagernes, The Institute for Comparative Research in Human Culture.

Mithun, M. (2000). "Noun and verb in Iroquoian languages: Multicategorisation from multiple criteria." EMPIRICAL APPROACHES TO LANGUAGE TYPOLOGY: 397-420.

Mosel, U. and E. Hovdhaugen (1992). Samoan reference grammar. Oslo, Norway, Scandinavian University Press.

Noonan, M. (1997). Versatile nominalizations. Essays on language function and language type. J. B. e. al. Amsterdam, John Benjamins: 373-394.

Noonan, M. (2003). Nar-Phu. The Sino-Tibetan Languages. G. Thurgood and R. J. LaPolla. London, Curzon.: 336-352.

Osada, T. (1992). A reference grammar of Mundari, Institute for the Study of Languages and Cultures of Asia and Africa, Tokyo University of Foreign Studies.

Pawley, A. (1993). A language which defies description by ordinary means. The role of theory in language description. W. Foley. Berlin, Mouton de Gruyter: 87-129.

Peck, N., M. Donohue and T. Wyatt (2016). Polarity, case marking and aspect in Bumthang, a central Bhutanese language. ALS 2016, Monash University.

Plaisier, H. (2006). A Grammar of Lepcha. PhD, Universiteit Leiden.

Rauh, G. (2010). Syntactic Categories : Their Identification and Description in Linguistic Theories. Oxford, Oxford University Press.

Schachter, P. (2007). Parts-of-speech systems. Language typology and syntactic description. T. Shopen. Cambridge, Cambridge University Press. **1**: 1-60.

Schackow, D. (2013). Nominalization beyond the nominal domain - the case of Yakkha. ALT 10. Leipzig.

Schiering, R., B. Bickel and K. A. Hildebrandt (2010). "The prosodic word is not universal, but emergent." Journal of Linguistics **46**(3): 657-709.

Schiering, R., K. A. Hildebrandt and B. Bickel (2006). "Cross-linguistic Challenges for the Prosodic Hierarchy: Evidence from Word Domains."

Schultze-Berndt, E. (2003). Preverbs as an open word class in Northern Australian languages: synchronic and diachronic correlates. Yearbook of Morphology 2003. G. Booij and J. van Marle. Amsterdam, Springer: 145-177.

Stowell, T. A. (1981). Origins of phrase structure. PhD, Massachusetts Institute of Technology.

Swadesh, M. (1938). "Nootka internal syntax." International Journal of American Linguistics **9**(2/4): 77-102.

Taylor, J. R. (2003). Linguistic categorization. Oxford, Oxford University Press.

van Driem, G. (1994). Language Policy in Bhutan. Bhutan: Aspects of Culture and Development. Gartmore, Kiscadale Publications.

van Driem, G. (2001). Languages of the Himalayas: An Ethnolinguistic Handbook of the Greater Himalayan Region Containing an Introduction to the Symbiotic Theory of Language, Brill.

van Driem, G. (2015). "Synoptic grammar of the Bumthang language." Himalayan Linguistics **0**(1).

Van Eijk, J. P. and T. Hess (1986). "Noun and verb in Salish." Lingua **69**(4): 319-331.

Watters, D. E. (2002). A grammar of Kham. Cambridge, Cambridge University Press.

Wetzer, H. (1996). The typology of adjectival predication. Berlin, Mouton de Gruyter.

Wierzbicka, A. (1986). "What's in a noun? (or: how do nouns differ in meaning from adjectives?)." Studies in Language **10**(2): 353-389.

Wyatt, T. (2017). Syntactic change in the verbal system of Bumthang, a Tibeto-Burman language of Bhutan. Honours, Australian National University.

Zwicky, A. M. (1985). "Clitics and particles." Language **61**(2): 283-305.