

**A Grammar of Lha'alua,  
an Austronesian Language of Taiwan**

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## Abstract

This thesis is a grammar of Lha'alua (known as Saaroa), an Austronesian language of Taiwan. Lha'alua is spoken in Taoyuan Village and Kaochung Village, Taoyuan District, Kaohsiung City, Taiwan. Lha'alua belongs to the morphological type of synthetic-agglutinating; usually a word consists of a largish number of morphemes (roots, affixes and clitics) but by and large morpheme boundaries are clear. The basic constituent order is  $V_{\text{pred}}AO$ , if transitive, or  $V_{\text{pred}}S(E)$ , if intransitive. The bound pronoun is a core argument either in S function or in A function, whereas the independent pronoun is either a core argument in S (when topicalized), E, A or O function or a peripheral argument. Prefixation is productive, whereas other affixations are not. Reduplication is widely deployed. The two major word classes are verb and noun, with rich morphology marking. Despite some grammatical distinctions differentiating adjectival elements from dynamic verbs and noun, 'adjective' is not recognisable as an independent word class. Adjectival elements are treated as stative verbs in that they exhibit the same morphosyntactic properties. The basic constituent order is  $VAO$ , if transitive, or  $VS(E)$ , if intransit

morphophonology. Chapter 3 discusses word classes, including nouns and subclasses of nouns, verbs and subclasses of verbs, adjectives and subclasses of adjectives, numerals, closed classes of shifters, and closed grammatical systems. Chapter 4 deals with morphological units and morphological processes. Chapter 5 describes nominal morphology, including common nouns, kinship terms, person names, family names,

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## **Glossing conventions and abbreviations**

### **Glossing conventions**

Examples have three lines. The first line represents the underlying form. The second line gives interlinear morpheme-by-morpheme glosses. The third line is a translation into English.

Examples are numbered consecutively within each chapter and include the

single asterisk (\*) marks hypothetical reconstructed segments and morphemes, and an ungrammatical or otherwise impossible form.

An underline (⏟) used in English translations in syntax chapters denotes the argument which is pragmatically profiled by the voice marker, e.g. *m-i<a>ma=mu salhumu* (AV-drink<IRR>=2PL.ABS water ‘You will drink water’).

BV	benefactive voice
CAUS	causative
CL	classifier
CONJ	conjunction
COOR	coordinator

O	the argument of a plain transitive verb, whose referent is saliently affected by the activity
OBL	oblique case
PART	particle
PAST	past tense
PERF	perfective marker
PF	patient focus
PL	plural
POSS	possessive marker
PV	patient voice
Q	question
REA	realis
RECIP	reciprocal marker
RED	reduplication
REL	relative clause marker
S	the sole argument of a canonical intransitive verb and the core argument of a bivalent intransitive verb
SG	singular
STAT	stative
TEMP	temporal
TOP	topicalization marker
TR	transitive

# CHAPTER 1

## INTRODUCTION

### 1.1 Grammatical profile

This thesis is a grammar of Lha'alua (also known as Saaroa), an Austronesian language of Taiwan. Lha'alua is spoken in Taoyuan Village and Kaochung Village, Taoyuan District, Kaohsiung City, Taiwan. There are approximately 400 people of Lha'alua. At the moment, 10-15 people are able to speak the language. The language status of Lha'alua is moribund.

Lha'alua has 13 consonants: /*p, t, k, ʃ, s, v, ts, m, n, ŋ, r, R, ɾ*/ and four vowels: /*i, ɨ, u, a*/. Vowel length is contrastive in Lha'alua. The basic syllable pattern is (C)V. Underived roots carrying the basic meaning of words usually consist of more than two syllables in a (C)V.(C)V.(C)V pattern. A disyllabic (C)V.(C)V pattern is relatively rare. Grammatical morphemes are usually a single syllable, e.g. construction markers. Lha'alua distinguishes primary stress and secondary stress. Primary is not contrastive, nor is secondary stress. Primary stress within a word typically falls on the penultimate or antepenultimate syllable. A vowel with primary stress is characterised by higher pitch and greater intensity.

function, and genitive pronouns, marking arguments in A function and possessor function. The case system includes core, oblique and genitive. The core case covers arguments in S, A and O functions. The oblique case marks extended arguments (i.e. E function) and peripheral arguments, e.g. location. The genitive case is used to encode possessor function.

There are three verbal clause patterns in Lha'alua: (i) Pattern 1: monovalent intransitive clauses, (ii) Pattern 2: bivalent intransitive clauses and (iii) Pattern 3: (a) bivalent transitive clauses and (b) bivalent applicative clauses. (i) and (ii) take Actor voice (AV), marked by *um-/<um>/u-/m-/ø-*; (iiia) takes patient voice (PV), marked by *-a/-ø*; (iiib) takes locative voice (LV), marked by *-a(na)/-i/-ani*. The definiteness effect plays a role in determining the manifestation of voice in an independent clause, and the manifestation of voice in independent clauses plays a role in determining grammatical subjects.

Lha'alua has independent clauses: verbal, nominal, existential, possessive and locative clauses, and dependent clauses: relative and adverbial clauses. Lha'alua exhibits 8 complementation strategies: utterance pr



recognised as an independent ethnic group (from Amis) by the Taiwan government in January 2007. However, most linguists still consider Sakizaya as a dialect of Amis (Joy Wu, personal communication).

### **1.3 Subgrouping and position of Lha'alua within Formosan languages**

Blust (1977), using exclusively shared innovations, sound change correspondence and morphology, proposes that Proto-Austronesian is divided into four main subgroups: Atayalic, Tsouic, Paiwanic, and Malayo-Polynesian. The Tsouic group consists of Northern Tsou and Southern Tsou, which has been used by scholars, such as Ogawa and Asai (1935), Ferrell (1969) (using word list), Tsuchida (1979) (using reconstruction of Proto-Tsouic phonology), and many others.<sup>5</sup> While Northern Tsou is the so-called Tsou, Southern Tsou covers Kanakanavu and Lha'alua. The genetic



(Saaroa), and Kanakanavu); 7. Bunun; 8. Western Plains consisting of central western plains with Taskas-Babuza and Papora-Hoanya on the one hand, and of Thao on the other; 9. Northwest Formosan, with Saisiyat and Kulon-Pazeh; 10. Malayo-Polynesian. This subgrouping hypothesis is represented in Figure 1.2.

Atayalic 

**PAn**

**Pituish**

**Walu-Siwaish**

Luilang

Pazeh

Saisiyat

Atayalic

Thao

Favorlang

Taokas

Siraya

Papora

Hoanya

Tsou

**Lha'alua (Saaroa)**

Kanakanavu

Bunun

Rukai

Paiwan

Puyuma

Kavalan

Amis

Proto Malayo-

Polynesian

.16436(a)- *\*pitu* '7'

Lha'alua and Kanakanavu, due to the fact that none of the (Northern) Tsou exclusive innovations is attested in Lha'alua and Kanakanavu.<sup>9</sup>

There are diverse hypotheses towards the subgrouping of Austronesian languages. For more studies pertinent to this issue, please refer to Haudricourt (1965), Ferrell (1969), Dyen (1971a, 1971b, 1992), Dahl (1976), Tsu

### **Map 1.2: Geographical distribution of the Lha'alua villages<sup>11</sup>**

(ii) **ENVIRONMENT.** Taoyuan District reaches an altitude ranging from 500 to 3000 meters and is surrounded by mountains and rivers. Two national parks, Yushan National Park and Maolin National Park, abut upon this area. Plenty of abundant natural environments can be spotted here. According to the Taoyuan District Office, the yearly average temperature is 22.7 degrees Celsius and the yearly average rainfall is 2757.5 millimeters. Rainfall mainly accumulates during the rainy season (known as plum rain season), approximately in May and June, and during the typhoon period, approximately in summer and early autumn.

(iii) **POPULATION, SPEAKERS AND PRESENT STATE.** In light of the statistics compiled by the Council of Indigenous People (CIP), Executive Yuan, Taiwan in September 2011, the overall population of Tsou, including (Northern) Tsou, Kanakanavu and Lha'alua, is 6871. There is no individual report officially for the population of

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<sup>11</sup> The map was drawn by Chih-hsien Lin, an assistant at the Institute of Linguistics, Academia Sinica.

Lha'alua. However, according to the elders of Lha'alua and the Taoyuan District Office (Chinese name: ), Kaohsiung City, Taiwan, it is estimated that the population of Lha'alua is, approximately, 400 in total. At present, only 10-15 people are capable of speaking the Lha'alua language. Most of these speakers live in



groups (e.g. Bunun) in the village, (ii) from two movable stand cars coming to the village almost every day, or (iii) by going shopping in neighbouring areas like Peerai/Puurai (Chinese name:     ) or Lhakuruca (Chinese name:     ).

(ix) **MATERIAL CULTURE.** The way of sleeping is on the bed, basically made of wood or spring. The methods of cooking now consist in boiling on coals or on gas, stir-frying on gas, steaming in coals or in gas, and roasting on coals or in ground oven. Cookers and cutleries, no longer made by the Lha'alua people now, are made of wood or metal, e.g. iron, and are purchased from shops. There is no pottery or ceramics, not to mention its use for cooking or water storage. Nowadays, almost each house has a water tower, made of iron, for the storage of water.

cultivation, making farms, sowing seeds, weeding on farms, harvesting crops, gathering food from farms, and gathering food from outside farms. In a word, men do



the ethnic community leader is mainly responsible for the mediation of important affairs in the ethnic community convention and for the settlement of disputes in the ethnic community.

husband beat up the adulteress and the adulterer, and then divorced his wife.

Some basic principles were put forth and abided by the Lha'alua people. Firstly, those offences which were not concrete and not easy to have evidence for were deemed as taboos. Secondly, offences among the Lha'alua people or in relation to other genial and friendly ethnic groups were established, whereas offences about hostile ethnic groups were not. Thirdly, offences were regarded as victims' disaster when offenders were under age or had mental sickness. Fourthly, offenders' relatives had related responsibilities to their offences. Lastly, though it was advised not to do so, suffers or victims had the right of vengeance toward offenders.

(xvii) **KINSHIP AND MARRIAGE.** Kinship system is classificatory, and marriage is highly patrilineal and mostly patrilocal. Now, marriage is established under the unanimous consent of the bridegroom, the bride and also their

should put chairs in order immediately after eating

non-traditional.<sup>14</sup> The unique traditional religion is called Takiare. It includes 12 Gods, each with a particular task to do for the Lha'alua people. The 12 Gods are *pavasu* 'God of Courage', *paumala papa'a* 'God of Hunting', *pama lha tura* 'God of Health', *paumala aane* 'God of Food', *lhalangu ilhicu* 'God of Evil-dispelling', *patama'i'iare* 'God of Industry', *pamava lha uvau* 'God of Safety', *kupa ma sa vau* 'God of Sloth-dispelling', *paumala ngalha mavacange* 'God of Achievement', *pamai ia tulhulhu* 'God of Guard', *papa cucu pungu* 'God of Wisdom', and *sipakini varate lha usalhe* 'God of Wind and Rain'. The non-traditional religion includes

explanation, and analyses of lyrics.

**(II) COMPARATIVE STUDIES.** Yan (1964) presents a preliminary comparative study of Kanakanavu and Lha'alua, including comparison of the phonetic system, words and morphological features. P. Li (1972) offers an extensive comparison of the three Tsouic languages, centering on the interrelationships of the three Tsouic languages and some of the specific developments in the individual languages. The study is the first one to reconstruct Proto-Tsouic (PT) phonemes and lexemes in the light of a list of lexical items. Based on common phonological innovations and the degree of lexical

stage. The author further argues that Malayo-Polynesian should be deemed as a lower-order subgroup of the AN language family, on account of some morphological features shared between these remaining Formosan languages and the Malayo-Polynesian languages. H. Chang (2006) casts doubt on the Tsouic Subgroup Hypothesis and addresses the question of whether (Northern) Tsou constitutes a subgroup with Lha'alua and Kanakanavu, due to the fact that none of the (Northern) Tsou exclusive innovations is attested in Lha'alua and Kanakanavu.

**(V) STUDIES WITHIN THE FORMALIST FRAMEWORK.** C.-L. Li (2009) investigates prefix concord effect and offers a minimalist account for various syntactic restrictions on the prefix concord constructions. Recently, C.-L. Li (2010) investigates the morpho-syntax and semantics of eventuality in Paiwan and Lha'alua under the Minimalist framework as well as within the generative Constructionist approach.

All the Lha'alua language materials were collected during my fieldtrips to the villages where the language is spoken, and then these materials were further transcribed and translated. Payne (1997:366-371) mentions that both text and elicited data are essential to good linguistic analysis. In this grammar, grammatical elicitation was employed quite sparingly and judiciously; it was merely used to verify and correct field notes, complete paradigms, and check hypotheses. Speakers were given putative words, sentences, or descriptions of situations in Lha'alua, instead of asking them to directly translate sentences from Mandarin Chinese or Taiwanese. Though Lha'alua is not actively spoken in the community anymore, participant observation still plays a substantial part in unearthing the ways how the language is used. The

### 1.6.3 Language consultants

Transcribed texts and field notes documented in the field and used in this grammar all came from the five speakers who have proficiency in the Lha'alua language. Background information of language consultants are provided in the order of consultation frequency below in Table 1.1 with their names in Chinese, names in Lha'alua, years of birth, and genders.

**Table 1.1: Background information of language consultants**

Chinese name	Lha'alua name	Year of birth	Gender
	<i>Eleke Lhauracana</i>	1924	female
	<i>Amalanamalhe Salapuana</i>	1948	male
	<i>Langui Tavuiana</i>	1934	female
	<i>Caepe Lhatiunana</i>	1948	male
	<i>Vanau Tumamalikisase</i>	1956	female

### 1.7 Aims of the present study

This thesis is a grammar of Lha'alua. Essentially, there are three major goals in the present study. Firstly, it aims to offer a thorough description of grammatically salient characteristics of Lha'alua, in order to add an important and necessary dimension to a much deeper understanding of the language, especially for the language speakers, linguists as well as scholars from other disciplines. Secondly, it will provide language materials for those who wish to make inductive generalisations and then contribute to the typological theory. Lastly, it provides enough empirical evidence to demonstrate in what grammatical respects Lha'alua differs from other putative members of the Tsouic subgroup (i.e. Tsou and Kananavu) (and also other Formosan Languages in general), in order to pin down Lha'alua's position within the Formosan languages and within the Austronesian language family.



## **CHAPTER 2**

### **PHONOLOGY AND MORPHOPHONEMICS**

Loan phonemes are put into parentheses and further discussed in §2.1.4.

**Table 2.1: Consonant phonemes**

<b>active articulator</b>	<b>labio-</b>		<b>apico-</b>	<b>lamino-</b>	<b>dorso-</b>	<b>glottal</b>
<b>passive articulator</b>	<b>labial</b>	<b>dental</b>	<b>alveolar</b>	<b>palatal</b>	<b>velar</b>	
<b>unaspirated voiceless stop</b>	p		t		k	/
<b>aspirated voiceless stop</b>	(pç)		(tç)		(kç)	
<b>voiced stop</b>	(b)					

/N

	vs <b>0</b>	/takiari/	‘God of Shell’
		/taiari/	‘Alo. cucull (plant name)’
d. //	vs <b>/ts/</b>	/tsara/ɛ/	‘blood’
		/tsaratsi/	‘louse (body)’
	vs <b>/m/</b>	/atsi/i/	‘liver’
		/matsi/i/	‘to die’
	vs <b>/R/</b>	/tũ /u/	‘place name/table’
		/tũ Ru/	‘three (serial counting)’
	vs <b>0</b>	/paRi/i/	‘gall’
		/paRii/	‘male name’
	vs <b>0</b>	/au/	‘soup’
		/au/	‘to eat (in negative construction)’
e. /s/	vs <b>/N/</b>	/avasi/	‘tongue’
		/avaNɛ/	‘boat/canoe’
	vs <b>/r/</b>	/usai/	‘male name’
		/urai/	‘grease/oil/petroleum’
	vs <b>/R/</b>	/ta-iusu/	‘mulberry’
		/ta-iuRu/	‘barn/round basket woven from couch grass’
f. /v/	vs <b>/ts/</b>	/tsuvu/u/	‘bamboo shoot’
		/tsutsu/u/	‘person’
	vs <b>/r/</b>	/uvura/	‘give’
		/urura/	‘string (verb)’
	vs <b>0</b>	/vũ ru/	‘bow’
		/ũ ru/	‘rice (cooked)’
g. /ts/	vs <b>/~/</b>	/tsatsu/u/	‘Phyllostachys pubescens Mazel (plant name)’
		/tsa-u/u/	‘Alocasia macrorrhiza (plant name)’
	vs <b>//</b>	/matsitsi/	‘hot (weather)’
		/matsi/i/	‘dead’
	vs <b>/s/</b>	/tukutsu/	‘friend’
		/tukusu/	‘bridge’
	vs <b>/v/</b>	/tsara/ɛ/	‘blood’
		/vara/ɛ/	‘lung’
	vs <b>/r/</b>	/tsatsu/u/	‘Phyllostachys pubescens Mazel (plant name)’
		/ratsu/u/	‘bamboo’
	vs <b>0</b>	/tsa-u/u/	‘Alocasia macrorrhiza (plant name)’
		/a-u/u/	‘honeybee’
h. /m/	vs <b>/ts/</b>	/mai-i/	‘salt’
		/tsai-i/	‘year’

	vs / <b>k</b> /	/ta-ami/	‘practice/try’
		/ta-aki/	‘pig’
	vs /-/	/ama/a/	‘father’
		/a-a/a/	‘enemy’
	vs <b>0</b>	/i-amu/	‘second person plural independent pronoun’
		/i-au/	‘second person singular independent pronoun’
i.	/n/ vs /-/	/maini/	‘small’
		/mai-i/	‘salt’
	vs / <b>m</b> /	/a-ani/	‘right’
		/a-ami/	‘bird’
j.	/N/ vs /ts/	/uraN̄i/	‘hemp plant’
		/urats̄i/	‘vein/sinew’
	vs / <b>p</b> /	/NaR̄i/i/	‘saliva’
		/paR̄i/i/	‘gall’
	vs / <b>v</b> /	/vaN̄ai/	‘Melia azedarach (plant name)’
		/vavāi/	‘ribs’
	vs / <b>k</b> /	/aN̄ai/	‘male name’
		/akai/	‘fish net’
	vs / <b>s</b> /	/uuNu/	‘horn’
		/uus̄u/	‘female name’
k.	/r/ vs / <b>m</b> /	/mian̄i/	‘pound (rice)’
		/rian̄i/	‘both/all’
	vs /ts/	/ramuru/	‘cub’
		/ramutsu/	‘hand’
	vs / <b>k</b> /	/varat̄i/	‘wind’
		/vakat̄i/	‘melon’
	vs / <b>k</b> /	/ta-uru/	‘cave’
		/ta-uku	

	vs	<b>0</b>	/tavuRa/	‘south’	
			/tavua/	‘crow’	
m.	/~/	vs	<b>/R/</b>	/i-u/u/	‘beads/necklace’
				/iRu/u/	‘intestines’
		vs	<b>/R/</b>	/tavaNa-a/	‘beans’
				/tavaNaRa/	‘place name’
		vs	<b>/s/</b>	/Riu-u/	‘price’
				/Riusu/	‘butt’
		vs	<b>/m/</b>	/mã Rē-ī/	‘eighty’
				/mã Rēmi/	‘swallow’
		vs	<b>/k/</b>	/tu-utsu/	‘Derris trifoliata (plant name)’
				/tukutsu/	‘friend’
		vs	<b>/t/</b>	/-amu/u/	‘grandchild’
				/tamu/u/	‘grandparent’
		vs	<b>/ts/</b>	/tsa-u/	



phonological environment. In Lha'alua, three consonant phonemes (/s/, /v/ and /ts/) may have allophones. Speakers typically produce allophones when they converse in rapid speed. In contrast, allophones do not occur in relatively slow speech.

/s/ is palatalised and becomes a voiceless palato-alveolar fricative [ʃ] when followed by /i/, and elsewhere, a voiceless alveolar fricative [s].

- (2.4) a. /s/ and /i/: /sikamɨ/ [ʃikamɨ] 'mat'  
 b. /s/ and /ɨ/: /sɨ-ɨNanɨ/ [ʃɨ-ɨNanɨ] 'place name'  
 c. /s/ and /u/: /sumasiRaɨ/ [sumaʃiRaɨ] 'to lick'  
 d. /s/ and /a/: /saRa/a/ [saRa/a] 'road'

/v/ is bilabialised and becomes a voiced bilabial fricative [β] when followed by /u/, and elsewhere, a voiced labio-dental fricative [v].

- (2.5) a. /v/ and /i/: /viaviaru/ [viaviaru] 'place name'  
 b. /v/ and /ɨ/: /vitɨraɨ/ [vitɨraɨ] 'broom'  
 c. /v/ and /u/: /vukuri/ [βukuri] 'yam'  
 d. /v/ and /a/: /varu/u/ [varu/u] 'new'

/ts/ is palatalised and becomes a voiceless palato-alveolar affricate [tʃ] when followed by /i/, and elsewhere, an unaspirated voiceless alveolar affricate [ts].

- (2.6) a. /ts/ and /i/: /tsivuka/ [tʃivuka] 'belly/stomach'  
 b. /ts/ and /ɨ/: /tsitsimia/ [tsitsimia] 'broom'  
 c. /ts/ and /u/: /tsutsumatsu/ [tsutsumatsu] 'aborigine'  
 d. /ts/ and /a/: /tsatsaRaisa/ [tsatsaRaisa] 'stuff'

### 2.1.2 Vowels

There are four vowels in Lha'alua, as listed in Table 2.3. Loan phonemes put into parentheses are further discussed in §2.1.4.

Three major parameters (heightness, frontness and rounding) are involved in the production of vowels in Lha'alua, those sounds that occur as the nucleus of a syllable. The height of the tongue (labeled as high, mid and low) indicates how far it is raised towards the roof of the mouth. Frontness (labeled as front, central and back) refers to the horizontal position of the part of the tongue that is raised. Rounding denotes



whether the lips are rounded or unrounded.

**Table 2.3: Vowel phonemes**

	Short vowels
Frontness	
Hightness	

d.	/a/ vs /i/	/masu/u/	‘fruit’
		/misu/u/	‘thirsty’
	vs /ɨ/	/vara/a/	‘charcoal’
		/vara/ɨ/	‘lung’
	vs /ɨ/	/ra-ɨNa/	‘sweat’
		/ra-ɨNɨ/	‘leaf’

### 2.1.2.3 Phonotactic distribution

	vs	/i/	/umi <sup>~</sup> apɪ/	‘read/study’
			/umiapɪ/	‘count’
	vs	/i/	/ma- <sup>~</sup> ipɪ/	‘thin’
			/ma- <sup>~</sup> ipi/	‘laminated shape’
b.	/i <sup>~</sup> / vs	/i/	/sɪ <sup>~</sup> kɪ/	‘male name’
			/tɪkɪ/	‘heart’
c.	/u <sup>~</sup> / vs	/u/	/-amũ <sup>~</sup> na/	‘now’
			/-amuna/	‘begin’
	vs	/u/	/vu <sup>~</sup> ru/	‘bow’
			/vur-u/	‘give (PV.IMP)’
	vs	/u/	/ku <sup>~</sup> ri/	‘mavis (bird species)’
			/kuri-/	‘shoot’
d.	/a <sup>~</sup> / vs	/a/	/pa <sup>~</sup> ri/	‘dry (verb)’
			/pari-/	‘pluck/seize/catch’
	vs	/a/	/m-a <sup>~</sup> -maini/	‘drink a little’
			/ma-maini/	‘child’

A long vowel is written as two identical vowels, i.e. *VV*, in the following chapters throughout the grammar. Since a long vowel and two identical vowels have the same orthographic character, it is worth noting in advance that a long vowel forms a syllable and two identical vowels constitute two syllables. The orthography the study adopts is provided in §2.5. More discussion about vowel length and vowel sequences is given in §2.2.2. Long vowels may interact with stress (see §2.3.2).

#### 2.1.4 Loan phonemes

There are plenty of loan words in Lha’alua, many of which were introduced during the Japanese occupation period (1895-1945). Apart from Japanese, words were borrowed from Mandarin Chinese, Taiwanese Southern Min, and other aboriginal languages in the neighbouring area, e.g. Bunun. In my corpus, nine consonant phonemes and two vowel phonemes are found exclusively in loan words. Loan phonemes, together with phonetic description and examples, are provided below.

- (2.10) /b/ is a voiced bilabial stop, e.g. /*otobai*/ ‘motorcycle (from Japanese)’
- /pç/ is an aspirated voiceless bilabial stop, e.g. /*pçũ tçau*/ ‘grapes (from Mandarin Chinese)’
- /tç/ is an aspirated voiceless alveolar stop, e.g. /*pçũ tçau*/ ‘grapes (from Mandarin Chinese)’
- /kç/ is an aspirated voiceless velar stop, e.g. /*sik ˈkçia*/ ‘custard apple (from Taiwanese Southern Min)’. Note that the coda /k ˈ/ is unreleased.
- /tsç/ is an aspirated voiceless alveolar affricate, e.g. /*tsçaipu mapu-i*/ ‘radish (first element from Mandarin Chinese, second element from Lha’alua)’
- /tʃ/ is an unaspirated voiceless palato-alveolar affricate, e.g. /*tʃũ goku*/ ‘China (from Japanese)’
- /dz/ is a voiced palato-alveolar affricate, e.g. /*dzũ dzi*/ ‘ten o’clock (from Japanese)’
- /g/ is a voiced velar stop, e.g. /*go ʔAo ʔ*/ ‘county chief (from Japanese)’
- /h/ is a voiceless glottal fricative, e.g. /*huarɨ*/ ‘place name (from Bunun)’
- /ɒ/ is a low mid front unrounded vowel, e.g. /*tɒnki*/ ‘electricity (from Japanese)’
- /ʌ/ is a low mid back rounded vowel, e.g. /*pʌNʌmi*/ ‘jackfruit (from Mandarin Chinese)’

## 2.2 The syllable

### 2.2.1 Syllable structure

Even though not all linguists agree that the syllable is an essential phonological unit, sL T\*[(2(L T\*1t )-0.ecm15(1)-2.16436()-2.16436()-2.16436()-2.16436()-2.)-2.3225(g)9.71032(.)-0.7

and restrictions on vowel sequences will be provided in §2.2.2.

Consonants typically do not appear in word-final position (also syllable-final, i.e. coda position), since, as a rule, words end in an open syllable, the last vowel often being an echo vowel. Vowel dropping (§2.3.3) in normal and rapid speech may give rise to CVC and VC syllables. Note that the word-final consonant virtually results from vowel dropping, and hence neither of these two syllable types is considered as the basic syllable structure of Lha'alua (§2.2.1).

In (2.11), the word-final vowel /u/ is elided in normal and rapid speech; as a result of subsequent resyllabification, a CVC syllable arises.

- (2.11) *kàʔlavúʔNu* 'cattle'  
slow/deliberate speech: /kà.ʔa.vú.ʔNu/  
normal/rapid speech: /kà.ʔa.vúʔN/

In (2.12), the word-final vowel /i/ is reduced in normal and rapid speech, and this results in the creation of a phonetic VC syllable.

- (2.12) /à

**Table 2.5: Distribution of vowel sequences**

	Word-initial		Word-medial		Word-final	
	#_C	Gloss	C__C	Gloss	C__#	Gloss
<b>ii</b>			<i>kiiRisi</i>	‘together’		
<b>iu</b>	<i>iuNu</i>	‘arrive(NEG)’	<i>miuNu</i>	‘to arrive’	<i>matavu-iu</i>	‘red’
<b>ia</b>	<i>iapi</i>	‘to count (NEG)’	<i>/aRaRiami</i>	‘small fly’	<i>ta-iarua</i>	‘sun’
<b>ii</b>			<i>pasaranaia</i>	‘reliable’		
<b>iu</b>						
<b>ia</b>			<i>a-aNaiNa</i>	‘dirty’	<i>mĩ mia</i>	‘also/all’
<b>ui</b>			<i>takui/iari</i>	‘to work’	<i>/ukui</i>	‘goat’
<b>ui</b>						
<b>ua</b>	<i>uaRu</i>	‘eight (nonhuman)’	<i>kuaRu</i>	‘eight (serial counting)’	<i>usua</i>	‘two (nonhuman)’
<b>ai</b>	<i>aisa</i>	‘middle’	<i>taisa</i>	‘big’	<i>makuRai</i>	‘fast’
<b>ai</b>	<i>ainimi</i>	‘six (human)’	<i>maiNĩ</i>	‘sneeze’	<i>vavai</i>	‘ribs’
<b>au</b>	<i>aupati</i>	‘four (human)’	<i>tapaupau</i>	‘mushroom’	<i>/aru-iau</i>	‘swallow’

A sequence of two vowels constitutes two separate syllable nuclei. There are three reasons to account for this. Firstly, the two vowels, unlike diphthongs, have their own sonorities, and stress (if any) can fall on either vowel (Ting 1967:926). Secondly, in a very slow speech register, each vowel is articulated separately and there is always

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(2.14) a. /-a.tʃ.Nʒ/                    ‘vegetable’  
              /-a.ɪ/

from speaker to speaker and even within the usage of the same speaker. Examples below show that different speakers and even the sam



host, i.e. the root or stem, it might also undergo leftward stress shift when lexical prefixation or the addition of prefixes is attached to the host, as in (2.19).

- (2.19) a. /*Nâ.ɾa.Ná.ɾa*/ 'again'  
b. /*kû.a.Na.ɾa.Na.ɾa.á.ku* *ú.m-u* *ú̃.ru*/  
eat-IRR-again=1SG.NOM AV-eat rice  
'I will eat rice again.'  
c. /*í̂.ku.Na.ɾa.Na.ɾa.tsu.á.ku* *ú.m-u* *ú̃.ru*/  
PERF.ASP-eat-again=COS.ASP=1SG.NOM AV-eat rice  
'I already ate rice again.'

(2.21) a. /m-*a*̃-a-.ma.i.ni.=*a*.ku m-*ĩ*.ma má.pa.tsi/

AV-drink-IRR-a.little=1SG.NOM AV-drink wine

‘I will drink a little wine’

a'. \*/m-*a*̃-a-.ma.i.ni.=*a*.ku m-*ĩ*.ma má.pa.tsi/

b. /*ʃ*-m-*a*̃-.ma.i.ni.=*a*.ku m-*ĩ*.ma má.pa.tsi/

PERF.ASP-AV-drink-a.little=1SG.NOM AV-drink wine

‘I drank a little wine’

b'. /*ʃ*-m-*a*̃-.ma.i.ni.=*a*.ku m-*ĩ*.ma má.pa.tsi/

a .

(2.22) a. /s*a*̃-.tsa.vú.-a v*a*.na.ú.=na pá.pa./

(2.23) a.	<b>mi#</b>	‘rice plant’	‘cogon grass’	‘small fly’
		<i>pù siámì</i>	<i>/àriámì</i>	<i>/àRaRiámì</i>
	slow/deliberate speech:	<i>/pũ̀.si.á.mi/</i>	<i>/à.ri.á.mi/</i>	<i>/à.Ra.Ri.á.mi/</i>
	normal/rapid speech:	<i>/pũ̀.si.ám/</i>	<i>/à.ri.ám/</i>	<i>/à.Ra.Ri.ám/</i>
b.	<b>ŋ#</b>	‘sweet potato’	‘vegetable’	‘when’
		<i>màiráŋ</i>	<i>Játiŋ</i>	<i>tsuJàumáŋ</i>
	slow/deliberate speech:	<i>/mà.i.rá.ŋ/</i>	<i>/Játi.ŋ/</i>	<i>/tsu.Jà.u.má.ŋ/</i>
	normal/rapid speech:	<i>/mà.i.ráŋ/</i>	<i>/Já.tiŋ/</i>	<i>/tsu.Jà.u.máŋ/</i>
c.	<b>nu#<sup>17</sup></b>	‘cattle’	‘skin’	‘meet’
	slow/deliberate speech:	<i>/tà.u.rú.nu/</i>	<i>/kà.ti.tj</i>	<i>/kà.ti.tj</i>

- h. /ma.u.pa.ti/                      /ma.u.pa.ti.ʔ/                      ‘forty’
- i. /ma.Ri.ma/                          /ma.Ri.ma.ʔ/                      ‘fifty’
- j. /ma.i.ni.mi/                        /ma.i.ni.mi.ʔ/                      ‘sixty’
- k. /ma.pi.tu/                          /ma.pi.tu.ʔ/                      ‘seventy’
- l. /maʔ

- d. /pũ̃.si.á.mi/      ‘rice plant’  
/pũ̃.si.a.mĩ.-ku/    (rice.plant-1SG.GEN) ‘my rice plant’

## 2.4 Morphophonemic rules

(2.28)	<i>/uru-/</i>	<i>/uRu-/</i>
	<i>/m-uru-tisi/</i>	<i>/m-uRu-a-R̥i̯-ʔi̯/</i>
	(AV-come.out-fart)	(AV-come.out-IRR-RED-tears)
	‘fart’	‘to shed tears’

### 2.4.1.2 Vowel harmony

Vowel harmony refers to the phonological process where adjacent vowels assimilate to each other. There are two types of vowel harmony in Lha’alua, both of which are regressive. The first type refers to the high back rounded vowel /u/, which after prefixation or infixation undergoes vowel harmony and assimilates to the high central unrounded vowel /i/ when the high central unrounded vowel /i/ is next to it. Examples of prefixation are given in (2.29). Examples of infixation are shown in (2.30).

(2.29)	<b>Underlying form</b>	<b>Derived form</b>	
a.	<i>/ku-iR̥isi/</i>	<i>/ki-iR̥isi/</i>	(eat-together) ‘eat together’
b.	<i>/ku-R̥ipiN̥i/</i>	<i>/ki-R̥ipiN̥i/</i>	(eat-finish) ‘eat up’
c.	<i>/taku-iR̥isi/</i>	<i>/taki-iR̥isi/</i>	(work-together) ‘work together’
d.	<i>/taku-R̥ipiN̥i/</i>	<i>/taki-R̥ipiN̥i/</i>	(work-finish) ‘finish working’
e.	<i>/m-u-tsik̥iʔi/</i>	<i>/m-i-tsik̥iʔi/</i>	(AV-motion.on.foot-come) ‘come’

(2.30)	<b>Underlying form</b>	<b>Derived form</b>	
a.	<i>/R&lt;um&gt;iʋiN̥i/</i>	<i>/R&lt;iʋ&gt;iʋiN̥i/</i>	(conceal<AV>) ‘conceal’
b.	<i>/t&lt;um&gt;iR̥iRaʔi/</i>	<i>/t&lt;iʋ&gt;iR̥iRaʔi/</i>	(earthquake<AV>) ‘earthquake’

/i/ after prefixation or infixation.

(2.32)	Underlying form	Derived form	
a.	/ku-iR̥s̥i/	/ku-a-iR̥s̥i/	(eat-IRR-together) ‘to eat together’
b.	/ku-R̥p̥iN̥i/	/ku-a-R̥p̥iN̥i/	(eat-IRR-finish) ‘to eat up’
c.	/taku-iR̥s̥i/	/taku-a-iR̥s̥i/	(work-IRR-together) ‘to work together’
d.	/taku-R̥p̥iN̥i/	/taku-a-R̥p̥iN̥i/	(work-IRR-finish) ‘to finish working’
e.	/R<um>iV̥iN̥i/	/R<um>a-R̥v̥iN̥i/	(RED<AV>-conceal) ‘to conceal’
f.	/m-u-tsik̥iJ		





b. /

(2.39)	<b>Underlying form</b>	<b>Derived form</b>	<b>cf.</b>
a.	<i>/taiv̥i-a/</i>	<i>/taiv̥-a/</i> cover-PV 'cover'	<i>/t&lt;um&gt;aiv̥i/</i> cover-AV 'to cover'
b.	<i>/taiv̥i-ana/</i>	<i>/taiv̥-ana/</i> cover-LV 'cover'	<i>/t&lt;um&gt;aiv̥i/</i> cover-AV 'cover'
c.	<i>/uRuNu-a/</i>	<i>/uRuN-a/</i> take.off-PV 'take (clothes) off'	<i>/um-uRuNu/</i> AV-take.off 'take (clothes) off'

(2.40)	<b>Underlying form</b>	<b>Derived form</b>	<b>cf.</b>
a.	<i>/ia-pa-puaR̥-a/</i>	<i>/ia-pa-puaR̥-a/</i> push-RED-BOUND.ROOT-PV 'push'	<i>/m-ia-pa-puaR̥/</i> AV-push-RED-BOUND.ROOT 'push'
b.	<i>/ia-pa-puaR̥-ana/</i>	<i>/ia-pa-puaR̥-ana/</i> push-RED-BOUND.ROOT-LV 'push'	<i>/m-ia-pa-puaR̥/</i> AV-push-RED-BOUND.ROOT 'push'

Similar to the second type of vowel deletion, the third type of vowel deletion does not apply to all verbs, either. Examples below show that the final vowel of the verbal root remains unchanged after a patient or location voice marker attaches to the verbal root.

(2.41)	<b>Underlying form</b>	<b>Derived form</b>	<b>cf.</b>
a.	<i>/iR̥vi-ana/</i>	<i>/iR̥vi-ana/</i>	<i>/m-i</i>

### 2.4.2.2 Syllable deletion

Syllable deletion in Lha'alua is limited to a syllable consisting of a glottal stop and a vowel. There are three environments where the glottal stop plus V syllable deletion takes place. The first environment occurs when a suffix is attached to a nominal root consisting of a glottal stop and a vowel in the last syllable position.

- (2.43) a. /*tamu*/u/ 'grandparent'  
          /*tamu*-ku/ (grandparent-1SG.GEN) 'my grandparent'  
      b. /*ina*/a/ 'mother'  
          /*ina*-ku/ (mother-1SG.GEN) 'my mother'  
      c. /*vu**ŋu*/u/ 'head'  
          /*vu**ŋu*-ta/ (head-1PL.INCL.GEN) 'our head'  
      d. /*vara*/a/ 'charcoal'  
          /*vara*-*ŋamu*/ (charcoal

- b. /tsara/ɛ/                    ‘blood’  
      /m-uru-tsara/ɛ/ (AV-come.out-blood)                    ‘bleed’

The third environment involves / /

right next to it after affixation.

(2.48)	<b>Underlying form</b>	<b>Derived form</b>	
	a. / <i>m-a ˘a-maini</i> /	/ <i>m-a-a-maini</i> /	(AV-drink-IRR-a.little) ‘to drink a little’
	b. / <i>sa ˘a ˘ni-a</i> /	/ <i>sa-a ˘ni-a</i> /	(3.GEN-eat-PV) ‘he ate’
		OR	
		/ <i>sa ˘ani-a</i> /	(3.GEN-eat -PV) ‘he ate’
	c. / <i>sa ˘a ˘i-a</i> /	/ <i>sa-a ˘i-a</i> /	(3.GEN-take-PV) ‘he took’
	d. / <i>apa ˘a-a ˘i-vi ˘i</i> /	/ <i>apa-a ˘i-vi ˘i</i> /	(CAUS-IRR-conceal) ‘make somebody conceal’

### 2.4.5 Resyllabification

Resyllabification results from vowel dropping which takes place in normal and rapid speech registers. It does not occur in slow and deliberate speech when a nasal plus a high vowel appear in word-final position and rarely in word-medial position. Details about vowel dropping have been brought up in §2.3.3.

### 2.4.6 Order of rule application

From §2.4.1 to §2.4.5, a number of morphophonemic rules have been discussc4

In December 2005, a standard orthography system was officially established by the Council of Indigenous People (CIP) and the Ministry of Education (MOE) of Executive Yuan, Taiwan. This grammar, in principle, employs the standard version of the government, with a minor difference of the voiceless alveolar lateral fricative [-]. This grammar adopts 'lh' rather than the standard version 'hl'. The reason for the use of 'lh' in this grammar is that in the world's languages, voiceless or aspirated sound when written as 'h' typically appears *after* the other letter.







## **CHAPTER 3**

### **WORD CLASSES**

This chapter presents word classes of Lha'alua. In Lha'alua, there is a basic and



nouns can only take a limited amount of verbal morphology (for instance, they cannot take imperative affixes) while they are used as heads of intransitive predicates. To be used as the head of a transitive predicate, nouns have to be verbalised through affixation. To be used as arguments, verbs have to be nominalised.

**Table 3.1: Major word classes and their functional slots**

	verb	noun
head of intransitive predicate	++	+
head of transitive predicate	++	-*
head of NP	-*	++
modifier in NP	+	+

Here ++ indicates a primary function and + a secondary function; - indicates that the property is lacking and \* marks that there are exceptions.

### 3.1.2 Grammatical properties associated with nouns

In Lha'alua, there are nine grammatical properties typically associated with a

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b. *ama'a*



There are likely to be some nouns that can occur with more than one classifier (one at a time but not several together) with different meanings.

(3.9) a. *ucani cavirana sulhate*



(3.16) **Numerals referring to nonhuman referents**

- a. *m-a-arū a [kalavungu-ku] ucāni.*  
AV-STAT-exist CORE cow-1SG.GEN one  
'I have one cow.' (lit. My cow one exists.)
- b. *lhi-um-u=cu=aku [lhavate] usua.*  
PERF.ASP-AV-eat=COS.ASP=1SG.NOM guava two  
'I have eaten two guavas.' (lit. 'I have eaten guava two.')
- c. *m-a-arū a ucāni [likilhi-ku] um-arū-a-sapalhe.*  
AV-STAT-exist CORE one vehicle-1SG.GEN AV-use-A-foot  
'I have one bicycle.' (lit. My foot-use vehicle one exists.)

(3.17) **Numerals referring to human participants**

- a. *m-a-arū la-lima [cucu'u] salia-ku.*  
AV-STAT-exist RED-five person house-1SG.GEN  
'There are five people in my family.' (lit. My house five people exist.)
- b. *m-a-arū a ca-cilhi [alhalua-ku lhalhusa]*  
AV-STAT-exist CORE RED-one older.sibling-1SG.GEN man  
*lha ca-cilhi [lhimilavae lhalhusa].*  
CONJ.COOR RED-one younger.sibling man  
'I have one older brother and one younger brother.'  
(lit. One my older brother and one younger brother exist.)

Nonhuman numerals and human numerals can modify nouns with plural forms via reduplication, denoting plurality.

(3.18) **Quadreduplication**

- sa-sia maa-maa-ma-maini*  
RED-nine RED-RED-RED-small  
'nine children'

(3.19) **CV̄ - (i.e. CVV-) triplication**

- pa-pitu lhaa-lhaa-lhaamaama*  
RED-seven RED-RED-old.person  
'seven old people'



(3.20) **CV(C)V- reduplication**

*upitu kiu-kiu'u*

seven RED-tree

‘seven trees’

(3.21) **(C)VCV- triplication**

*ualu alha-alha-alhame*

eight RED-RED-bird

‘eight birds’

(v) **POSSESSION.** The possessor can be a pronoun, a proper noun or a common noun,

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b. *i*<*a*>*ma-isa*<sub>i</sub>      *ka*      *ina*<sub>i</sub>-*ku*



c. *ku a tautau=na*

c. The definite noun profiled by patient voice in a bivalent transitive clause

*lhi-aala*                    [‘*angai*]<sub>A</sub>    [*vutukulhu=na*]<sub>O</sub>    *na*    *lhuulhungu*.

PERF.ASP-take(PV)    male.name    fish=DEF                    OBL    stream

‘angai took the fish



encodes a nominal argument with the semantic role, locative, and profiles the nominal argument as the grammatical subject.

(3.37) **Actor voice**

*m-i-ungu*

AV-action.concerning.location-BOUND.ROOT

*kani'i*

this/now

*ia,*

TOP

*ausi*

possible



**(3.40) Irrealis expressed through prefixation**

(3.44) **Encliticisation: change-of-state aspect ‘=cu’**

*m-i-ungu=cu=aku*

*na*

AV-action.concerning.location-BOUND.ROOT=COS.ASP=1SG.NOM OBL

*vilangane.*

place.name

‘I arrived at Vilangane (Chinese name: Guohe )’

(3.45) **Reduplication: iterative aspect: CṼ- reduplication**

*m-utu-a-taa-tapusu*

*a*

AV

(3.48) **The modality marker =iau ‘uncertain’**

*m-a-arū=mana=iau ka saa-saree-ana*  
AV-STAT-exist=IMPERF.ASP=MOD CORE RED-soil/dirt-LOC.NMZ

*m-aa-’ulutii.*

AV-BE:LOC/TEMP-a.magic.object.that.provokes.an.earthquake

‘A magic object that provokes an earthquake still exists in the Earth. (from a traditional story)’

(3.49) **The modality marker =maanai ‘possible’**

*ku pai-ta-tealhe=’ai=maanai lhatareae i<a>ma-isa*  
NEG find-IRR-ACHI=MOD=MOD pheasant drink(PV)<IRR>-3.AGR

*salhumu.*

water

‘Possibly, the pheasant couldn’t find the water to drink.’

Modality will be discussed in §6.2.4.

(v) **MOOD.** Imperative mood is the main means of marking directive speech acts, including orders and requests (Aikhenvald 2008:276, 2010a:33, 2010a:395). In Lha’alua, commands can be addressed to people of any age, especially children. When addressing command to old people, it is regarded as a token of etiquette to employ polite request. In contrast, using strong request to old people is deemed as a behaviour which is culturally unacceptable. In imperative sentences, an imperative suffix is obligatorily added to the main verb. The second person noun phrase in S or A function is omitted. In Actor, patient, and locative voice constructions, the imperative suffixes *-a*, *-u* and *-i/-ani* are used, respectively.

(3.50) **Strong request: the imperative suffix -a in Actor voice constructions**

*m-aa-m-a-ini-a=mau m-ima [mapaci]<sub>E</sub>!*  
AV-drink-AV-STAT-small-AV

(3.52) **Strong request: the imperative suffix -i in locative voice constructions**

*vur-i*            *a*        *kana'a=na*    *valhituku!*

give-LV.IMP    CORE



categories of (i) gender, (ii) noun classification, (iii) number, (iv) numeral (chapter 10), (v) possession (§7.2.1.3, §7.2.2.3.3, and §8.1.3.2), (vi) case (§7.2.2.3), (vii) definiteness, (viii) agreement (§7.2.1.2 and §7.2.3.2), and (ix) existential negation (§6.5.2). Apart from these, nominal morphology will be discussed in Chapter 5.

In Lha'alua, nouns are subsumed under several grammatical subclasses according to their morphological/syntactic possibilities correlating with semantic properties of their referents: (i) common nouns, (ii) kinship terms, (iii) human and nonhuman nouns, (iv) person names, (v) locative nouns and (vi) temporal nouns. These classes may overlap; accordingly, a noun can fall into more than one class.

Table 3.2 presents the grammatical properties of subclasses of nouns which will be discussed below in this section.

**Table 3.2: Grammatical properties of subclasses of nouns**

	vocative	head a possessive NP	case choice	floating around	pluralised	numeral agreement	modified by adjectival elements
common nouns	N	Y	Y	N	Y	Y	Y
kinship terms	S	Y	Y	N	Y	?	Y
human and nonhuman nouns	S	Y	Y	N	Y	Y	Y
person names	S	N	Y	N	N	?	Y
locative nouns	N	Y	S	S	?	?	Y
temporal nouns	N	N	N	S	N	N	N

In Table 3.2, 'Y' (for yes) means that the property includes all members; 'S' (for some) signify that the property includes some members or applies under some circumstances; 'N' (for no) indicates that the property is lacking; '?' denotes that available data are not able to make a decision.

The six grammatical subclasses of nouns are further elaborated as follows.

(i) **COMMON NOUNS.** In Lha'alua, common nouns can be underived and derived ones. While the former do not involve any morphological processes, the latter do. Derived common nouns, which are not simple words, are formed by undergoing at least one morphological process, e.g. through prefixation *lhi-culhuku* 'sticky rice cake', through reduplication *ma-m-a-ini* 'child', etc. Common nouns can take core and oblique case

markers. Common nouns take core case markers in intransitive sentences (marked by Actor voice markers), extended intransitive sentences (marked by Actor voice markers), transitive sentences (marked by patient voice markers), and locative applicative sentences (marked by locative voice markers), when the arguments are in S or O function. Common nouns take core case markers in transitive and locative applicative sentences when the arguments are in A function. Common nouns take oblique case markers in extended intransitive, transitive, and locative applicative sentences when there are arguments in E function or when there are peripheral arguments (i.e. adjuncts), e.g. locational expressions.

**(3.56) Common nouns (i.e. S/O arguments) take core case markers**

(3.57) **Common nouns (i.e. A arguments) take core case markers**

a. in transitive sentence (i.e. patient voice construction)

[mapaci]<sub>o</sub> a, i<a>ma-isa [ka lhaamaama]<sub>A</sub>.

wine TOP drink(PV)<IRR>-3.AGR CORE old.person

‘The old person will drink the wine.’

(lit. As for the wine, the old person will drink (it).)

b. in locative applicative sentence (i.e. locative voice construction)

lhi-aala-ana=cu [a ilhaku]<sub>A</sub> [a valhituku-isa

PERF.ASP-take-LV=COS.ASP CORE 1SG.INDEP CORE money-3.AGR

ama'a]<sub>o</sub>.

father

‘I took father’s money.’

(3.58)

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(3.59) **Locative nouns take the oblique case *na* in an extended intransitive sentence**

*ku=ita*                      *u-a-sala*                      *m-alhu-kua*  
NEG=1PL.INCL.NOM    motion.on.foot-IRR-road    AV-get.to-get.to

*na vilangane.*

OBL place.name

‘We will not go to Vilangane (Chinese name: Guohe        ).’

(3.60) **Locative nouns take the oblique case *na* in a transitive sentence**

[*mapaci*]<sub>O</sub>    *a,*    *i<a>ma-isa*                      [*ka lhaamaama*]<sub>A</sub>    [*na*  
wine            TOP    drink(PVOP

- (3.62) a. *lhi-u-lhamare* [a *lhaamaama*]<sub>S</sub> *kiira*  
 PERF.ASP-AV-set.fire.to.mountain CORE old.person yesterday  
 [caacapukaa]<sub>E</sub>.  
 couch.grass.plain  
 ‘The old person set fire to mountain’s couch grass plain yesterday.’
- b. *lhi-u-lhamare* [a *lhaamaama*]<sub>S</sub> [caacapukaa]<sub>E</sub> *kiira*.
- c. *kiira lhi-u-lhamare* [a *lhaamaama*]<sub>S</sub> [caacapukaa]<sub>E</sub>.

### 3.3 Verbs and subclasses of verbs

“Verb is the name given to the parts-of-speech class in which occur most of the words that express actions, processes, and the like” (Schachter 1985:9). Verbs, an open word class, form the most intricate part of the Lha’alua grammar, in terms of the affluence of grammatical categories and morpho-phonological complexity. That verbs are an open word class is upheld by the facility Lha’alua has in productively creating verbs through verbal lexical prefixation, e.g. *ku-tumulhu* (eat-a.lot) ‘eat a lot’, *ku-m-a-ini* (eat-a.little) ‘eat a little’, *ke-elese* (eat-together) ‘eat together’, *ke-lepenge* (eat-finish) ‘eat up’, and so on.

As mentioned in §3.1.3, typical syntactic functions of verbs in Lha’alua are the ability to head transitive and intransitive predicates. Lha’alua verbs can be defined as having grammatical categories of (i) voice (§6.3, §7.1 and §8.1.1), (ii) reality status (§6.2.1.1 and §6.2.1.2), (iii) aspect (§6.2.2), (iv) modality (§6.2.4), (v) mood (§9.2), (vi) agreement (§6.6, §7.2.3.2 and §7.2.1.2), and (vii) verbal negation (§6.5).

Verbs are subsumed under several grammatical subclasses according to their morphological/syntactic possibilities correlating with semantic properties of their referents: (i) transitivity classes, (ii) stative verbs, and (iii) adverbial verbs. All these classes may overlap; accordingly, a verb can fall into more than one class.

(i) **TRANSITIVITY CLASSES.** In Lha’alua, verbs can be sub-divided into several classes in terms of their argument structures characterised by their morphological derivations to a certain extent. Here verbs are classified on the basis of valency. More detailed

(3.63) **Weather condition**

a. *ku karekelhe pari-a-varate kiariari.*

NEG often blow-A-wind past

‘There were no typhoons frequently in the past.’

(lit. (It) didn’t typhoon often in the past)

b. *um-usalhi=cu.*

AV-rain=COS.ASP

‘(It) has rained.’

(3.64) **Time**

*ualu=cu a pakiaturaa kani’i.*

eight=COS.ASP CORE o’clock/teacher this/now

‘It is eight o’clock now.’

**MONOVALENT VERBS**, taking only one obligatory argument, the subject marked  
, a’clways intransilihe aok inrjac

b. *lhi-tineen-a=cu*                      [*a*    *eleke*]<sub>A</sub>            [*a*    *tikuru*]<sub>O</sub>  
 PERF.ASP-weave-PV=COS.ASP    CORE   female.name    CORE   clothes  
*ki-ruvana.*  
 REA-evening  
 ‘Eleke wove the clothes this evening.’

The example shown above is transitive in patient voice. When such a verb appears in Actor voice as shown below, it is intransitive and has the marking as a monovalent verb. The patient NP, if any, is demoted as an Extended argument (i.e.

(ii) **STATIVE VERBS.** In Lha'alua, stative verbs are characterised by the fact that they are zero-marked or marked by *-a*. **Quantifying expressions** are classified as stative verbs. Semantically, quantifiers are words that express contrasts in quantity (Crystal 1991:286). The fact that quantification is expressed through verbs is not exceptional (cf. Schachter 1985:38). As is the case for stative verbs, Lha'alua uses forms that are morphologically verbs to express quantifying notions, e.g. through Actor voice or stative markers: *m-a-tumulhu* 'a lot (inanimate)' and *tumalhae* 'a lot (animate)'.

- (3.69) a. *tumalhae a cucu'u m-aa-relhece.*  
 a.lot CORE person AV-BE:LOC/TEMP-place.name  
 'There are a lot of people in Relhece (Chinese name: Kaochung ).'  
 (lit. People a lot in Relhece.)
- b. *m-a-tumulhu a kiu-kiu'u m-aa-caale.*  
 AV-STAT-a.lot CORE RED-tree AV-BE:LOC/TEMP-mountain  
 'There are a lot of trees in mountains.' (lit. Trees a lot in mountains.)

Unlike dynamic verbs, stative verbs can be modified by the degree word *tam* 'very'.

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Quantifying expressions and existential predicates, like dynamic verbs, can attract aspectual markers, whereas they, unlike dynamic verbs, cannot attract bound pronouns. Examples of quantifying expressions are given below.

- (3.72) a. *tumalhae=cu a cucu'u m-aa-lhakuruca.*  
 a.lot=COS.ASP CORE person AV-BE:LOC/TEMP-place.name  
 'There have already been a lot of people in Lhakuruca (Chinese name: Liugui ).' (lit. People already a lot in Lhakuruca.)
- b. *m-a-tumulhu=cu a kiu-kiu'u m-aa-vuvulungaa.*  
 AV-STAT-a.lot=COS.ASP CORE RED-tree AV-BE:LOC/TEMP-mountain  
 'There have already been a lot of trees in mountains.'  
 (lit. Trees already a lot in mountains.)
- c. *langui ia, m-a-aruc n kani'i*  
 female.name TOP AV-STAT-exist=COS.ASP OBL this  
*saa-saree-ana.*  
 RED-soil/dirt-LOC.NMZ  
 'Langui used to live at this place.'  
 (lit. As for Langui, (she) existed at this place.)

In addition to quantifying expressions and existential predicates, **adjectival elements** in Lha'alua are also analysed as stative verbs. Detailed disc8.8 Tm (ad) 10(1) 232

(3.73) a. *ku-a-elese=ita*                      *maataata um-u papa'a.*  
eat-IRR-together=1PL.INCL.NOM



(3.74) **As modifier in an NP**

*lhi-k<um>ita=aku                      m-a-licece      [a    tasau].*  
PERF.ASP-see<AV>=1SG.NOM    AV-STAT-black    LNK    dog  
'I have seen a black dog.'

(3.75) **As intransitive predicates**

*m-a-liseelhe=i      ta'elha    kani'i=na?*  
AV-STAT-heavy=Q    chair    this=DEF  
'Is this chair heavy?'

In §3.4.2, a number of grammatical distinctions between adjectival elements, dynamic verbs and nouns will be demonstrated. However, the results do NOT indicate that adjectival elements are regarded as an independent word class in Lha'alua. Adjectival elements are analysed as stative verbs because they both share the same morpho-syntactic properties, e.g. **voice markers (Actor voice)**, **stative marker (a-)**, **inchoative marker (araa-)**, **degree modification (tam 'very')**, and **transitivity possibilities (intransitive only)**. As shown in examples (3.76) and (3.77), an adjectival element and a stative verb take the same Actor voice marker and stative marker, and they are modified by the same degree word *tam* 'very'.

(3.76) **Adjectival element**

*tam    m-a-kisemere    a      kulalungu    alemelhe.*  
very    AV-STAT-thick    CORE

In the following subsections, I discuss the semantic types of adjectival elements and their morphological properties (§3.4.1) and grammatical distinctions between adjectival elements, dynamic verbs and nouns (§3.4.2).

### **3.4.1 Semantic types of adjectival elements and their morphological properties**

Dixon (2004:3-4) states that there are four core semantic types typically associated with both large and small adjective class: dimension, age, value and color, and a number of peripheral semantic types typically associated with medium-sized and large adjective class: physical property, human propensity and speed. Semantic types of adjectival elements in Lha'alua are illustrated below.

**Table 3.3: Semantic types of adjectival elements**

SEMANTIC TYPES	Lha'alua examples	Number
DIMENSION	<i>langica</i> 'high/tall', <i>m-elengese</i> 'long (distance)', <i>raalhua</i> 'long (time)', <i>m-a-niteke</i> 'short', <i>taisa</i> 'big', <i>m-a-ini</i> 'small', <i>m-a-lakeve</i> 'wide',	

polymorphemic, e.g. *m-a-ini* ‘small’, *m-a-kisemere* ‘thick’ and so forth. Polymorphemic words may contain an Actor voice marker, e.g. *m-a-lakeve* ‘wide’, *m-elengese* ‘long (distance)’, etc., or include a stative marker, e.g. *m-a-kisemere* ‘thick’, *m-a-lhipii* ‘thin’, and so on.

The root of polymorphemic words are always bound and cannot be used alone, such as *m-a-niteke* ‘short’, *m-a-ini* ‘small’, etc. The only exception is that when co-occurring with the verbal negator *ku*, the Actor voice marker must be omitted. Under this circumstance, it is plausible to say that a bound root occurs independently, or it is a free root, e.g. *m-elengese* ‘long (distance)’ → *ku elengese* ‘not long (distance)’.

The (free) root of the monomorphemic word *taisa* ‘big’ can be further derived to form a member of a new word (verb) through verbal lexical prefixation, such as *t<um>u-taisa* ‘cry loudly (lit. cry big)’, *palhu-taisa* ‘sing loudly (lit. sing big)’, *pi-taisa* ‘speak loudly (lit. speak big)’, and *kira-ta-taisa* ‘step heavily (lit. step big)’.

Similar to monomorphemic words, polymorphemic words like *m-a-ini* ‘small’ can be further derived to form a member of a new word (verb) through verbal lexical prefixation, such as *ku-m-a-ini* ‘eat a little (lit. eat small)’, *m-aa-m-a-ini* ‘drink a little (lit. drink small)’, and *kira-ma-m-a-ini* ‘step lightly (lit. step small)’. Besides, *m-a-ini* ‘small’ can also be derived to form a member of a new word (noun) through reduplication, such as *ma-m-a-ini* ‘child’ and *maa-maa-ma-m-a-ini* ‘children (plurality)’. Apart from verbal lexical prefixation and reduplication, some new words can be derived through nominalisation, e.g. *m-elengese-na* ‘long (distance) thing/stuff’ and *m-a-niteke-na* ‘short thing/stuff’.

The word *langica* is a polysemy. When used as an adjectival category, it means ‘high’ for inanimate referents or ‘tall’ for animate referents. When used as a noun, it means ‘sky’. The words *m-elengese* and *raalhua* are synonymous, both standing for ‘long’. The difference lies in the fact that the former refers to ‘distance’, whereas the latter refers to ‘time’.

(ii) AGE. There are four members in the semantic type of age. The four members are all monomorphemic words; in other words, they do not take any Actor voice markers and stative markers. With respect to deriving a new word, *m-(r)2.804397(f)2.80439(o)-4659(-(r)2.4*



- c. *tam m-a-vacange=i valalhevalhe?*  
 very AV-STAT-beautiful=Q rainbow  
 ‘Is the rainbow beautiful?’

The word *tekelhe* is polysemous. Under the semantic type of value, it means ‘wrong’. Apart from, it also means ‘other’, e.g. *tekelhe talhana* ‘other ethnic group’. The temporal expression *tekelhe aari* is derived from *tekelhe* ‘other’, standing for ‘the day after tomorrow (lit. other day)’.

(iv) **COLOR.** There are nine members in the semantic type of color. In terms of morphological structure, some are monomorphemic, e.g. *seesema* ‘dark’, and *silhange* ‘bright’, *valacuku* ‘dark blue’ and *vitunga* ‘purple’, and some are polymorphemic consisting of an Actor voice marker and a stative marker, e.g. *m-a-tavulhiu* ‘red’, *m-a-lhisare* ‘yellow’, *m-a-licece* ‘black’, *m-a-langilhu* ‘blue/dark green’ and *m-a-pulhi* ‘white’.

In Lha’alua, more color terms can be derived through reduplication, in addition to the nine primary terms listed in Table 3.3. The meaning acquired after reduplication is diminutive. The reduplicant is composed of the first two syllables of the bound root.

- (3.79) a. *m-a-tavulhiu* ‘red’  
*m-a-tavu-tavulhiu* ‘pink (lit. light red)’  
 b. *m-a-lhisare* ‘yellow’  
*m-a-lhisa-lhisare* ‘orange/tangerine color (lit. light yellow)’  
 c. *m-a-licece* ‘black’  
*m-a-lice-licece* ‘grey (lit. light black)’  
 d. *m-a-langilhu* ‘blue/dark green’  
*m-a-langi-langilhu* ‘light blue/green’  
 f. *vitunga* ‘purple’  
*vi-tunga-tulor (lng*

already acquired by *m-a-langi-langilhu* ‘light blue/green’. The only exception which does not acquire the diminutive meaning after reduplication is *m-a-pulhi* ‘white’. Again, it is predictable that there is no color as ‘light white’, so *m-a-pulhi* ‘white’ after reduplicated as *m-a-pulhi-pulhi* is translated into ‘partly white’ (i.e. something including white color and the other color(s)).

*m-a-careme* ‘sick’, *m-a-cici* ‘hot (temperature)’ and *m-a-vacuku* ‘full (stomach)’ can take a verbal lexical prefix to form a member of a new word (verb), e.g. *um-arii-careme* ‘get a headache from reading’, *araa-cici* ‘to fever (lit. become hot)’ and *ku-a-vacuku* ‘eat so as to be full’.

Also, the root can be reduplicated to acquire an intensification meaning, e.g. through *CV* reduplication *ku-a-va-vacuku* ‘very full’. This example involves *CV* reduplication, rather than *Ca* reduplication. In Lha’alua, *Ca* reduplication is used in numerals to derive forms referring to human participants, and in dynamic and stative verbs to express irrealis. In this example, the meaning of the reduplicated form is intensification, which is typically used for *CV* reduplication.

- (3.80) *ku-a-va-vacuku=i meemea?*  
 eat-IRR-RED-full=Q all  
 ‘Do (you) all eat so as to be very full?’

In the semantic type of physical property, some words are synonyms. For instance, *m-a-sareme* and *m-a-talheteke/m-a-talheketeke* both indicate ‘cold’. The difference is that *m-a-sareme* refers to weather, and *m-a-talheteke/m-a-talheketeke* refers to objects. Likewise, *m-a-cici* and *m-a-siame* have the same meaning ‘hot’; *m-a-cici* refers to ‘temperature’, and *m-a-siame* refers to ‘taste’. Similarly, the difference between *m-a-vacuku* and *m-ilii* lies in the fact that the former denotes ‘full (e.g. stomach)’ and the latter ‘full (e.g. container)’. The word *m-a-lialhe* has two meanings. It means ‘light’ under the semantic type ‘physical property’ and ‘fast’ under the semantic type ‘speed’.

(vi) **HUMAN PROPENSITY**



can be clause-linked by a disjunctive coordinator: *si-a-sa-sangare alha si-a-ta-tare* ‘happiness or sadness’.

(vii) **SPEED**. There are two members in the semantic type of speed: *m-a-kulai* ‘fast’ and *m-uamuare* ‘slow’. They are polymorphemic words, in that they consist of an Actor voice marker. Different from *m-uamuare* ‘slow’, *m-a-kulai* ‘fast’ is inflected with a stative marker.

The bound root of *m-uamuare* ‘slow’ is always bound and quite productive in deriving new words (verbs). F241(p)-0.8f 1202(y)29.722107y

**Table 3.4: Morphological properties of semantic types of adjectival elements**

SEMANTIC TYPES	morpheme	voice	stative	verbal lexical prefixation	reduplication	nominalisation
DIMENSION	mono-/poly-	Y	Y	Y	Y	Y
AGE	mono-	N	N	Y	Y	Y
VALUE	mono-/poly-	Y	Y	Y	Y	Y
COLOR	mono-/poly-	Y	Y	Y		

the possibilities still vary. Most typically, an adjectival element is far more restricted than a dynamic verb when it occurs as a predicate head, as shown from (A) to (D) below.

(A) **BOUND PRONOUNS.** A dynamic verb as a predicate head allows two varieties of bound pronouns (nominative pronoun in an intransitive clause and genitive pronoun in a transitive clause); an adjectival element as a predicate head only allow one type of

b. *pai-tualh-a-isa*      [ma-m-a-ini]<sub>A</sub>=na      [saunga]<sub>O</sub>.  
find-ACHI-PV-3.AGR    RED-AV-STAT-small=DEF

(3.88) **Reduplication signifying ‘continuous’: an adjectival element as a predicate head**

a. *araa-velhe* ‘become fat’

b. *araa-ve-velhe*

INCH-RED-fat

‘keep on being fat’

(3.89) **Reduplication signifying ‘intensification’: a ‘non-color’ adjectival element as a predicate head**

a. *erece* ‘tight’

b. *e<ree>rece*

tight<RED>

‘very tight’

(3.90) **Reduplication signifying ‘diminutive’: a ‘color’ adjectival element as a predicate head**

a. *m-a-tavulhiu* ‘red’

b. *m-a-tavu-tavulhiu*

AV-STAT-RED-red

‘pink/light red’

(3.91) **Reduplication signifying ‘collectivity’: an adjectival element as a predicate head**

a. *m-elengese* ‘long’

b. *kiu-kiu’u m-u<la>lengese lha ta-taisa=na.*

RED-tree AV-long<RED> CONJ.COOR RED-big=DEF

- (3.93) **Reduplication signifying ‘continuous’: a dynamic verb as a predicate head**  
 a. *lhuulhungu* ‘creek’  
 b. *m-u-lhuu<ngu>lhungu*  
 AV-motion.on.foot-creek<RED>  
 ‘keep walking along a creek’
- (3.94) **Reduplication signifying ‘intensification’ or ‘iteration’: a dynamic verb as a predicate head**  
 a. *m-utu-a-tapusa* ‘jump’  
 b. *m-utu-a-taa-tapusu*  
 AV-move.toward-IRR-RED-BOUND.ROOT  
 ‘jump many times’
- (3.95) **Reduplication signifying ‘diminutive’: a dynamic verb as a predicate head**  
 a. *kit-u!* ‘Look (PV)!’  
 b. *ki-kit-u!*  
 RED-look-IMP.PV  
 ‘Try a quick look!’
- (3.96) **Reduplication signifying ‘collectivity’: a verb as a predicate head**  
 a. *lhi-angalhi* ‘have been from’  
 b. *lhi-a<nga>ngalhi*  
 PERF.ASP-from<RED>  
 ‘have ALL been from’
- (3.97) **Reduplication signifying ‘irrealis’: a dynamic verb as a predicate head**  
 a. *a-kalii* ‘to dig’  
 b. *k<um>a-kalii*  
 RED-AV-IRR-dig  
 ‘to dig’
- (3.98) **Reduplication signifying ‘excessive’: a dynamic verb as a predicate head**  
 a. *m-i<a>ma* ‘to drink’  
 b. *m-i<a><maa>ma*  
 AV-drink<IRR><RED>  
 ‘to drink more’



(3.102) **Degree word *tam* ‘very’ modifying an adjectival element as a predicate head**

- a. *tam m-a-vacange vulailhi ina-ku.*  
very AV-STAT-good eye mother-1SG.GEN  
‘My mother’s eyes are very beautiful.’
- b. *tam m-a-lhatera caepe=na.*  
very AV-STAT-strong male.name=DEF  
‘Caepe is very strong.’
- c. *tam m-a-kisemere a kulalungu alemelhe.*  
very AV-STAT-thick CORE skin wild.boar  
‘The skin of wild boars is very thick.’

From the above discussion, it is shown that most typically, an adjectival element is far more restricted than a dynamic verb when it occurs as a predicate head, as shown from (A) to (D). Besides, adjectival elements may have wider possibilities than dynamic verbs, as shown in (E) and (F). Apart from these, adjectival elements and dynamic verbs may have different possibilities.

(G) CAUSATIVE. To form a causative, dynamic verbs take the prefix *apaa-* or *paa-*, but adjectival elements (as well as stative verbs) take the prefixes *p-araa-* (*p-* ‘causative’ plus *araa-* ‘inchoative’). (Nouns take *araa-* to form an inchoative, e.g. *araa-ruvana* ‘become evening’).

(3.103) **Causative prefix *apaa-* or *paa-*: a dynamic verb as a predicate head**

- a. *lhi-apaa-kii-kirimi=ak0.293142(t)-2.165(v)-0.763015()-10.9-2.( )2550.295(4)2550.295(4)255*



- d. *m-a-aru a cucu'u paa-pa-paci alemelhe.*  
 AV-STAT-exist CORE person CAUS-RED-die wild.boar  
 'There is someone killing wild boars.'  
 (lit. Person killing wild boar existed)

(3.104) **Causative prefixes *p-araa-*: an adjectival element as a predicate head**

- a. *p-araa-tarengiri=cu a caepe=na tikuru-isa.*  
 CAUS-INCH-wet=COS.ASP CORE male.name=DEF clothes-3.GEN  
 'Caepe made his clothes wet.'
- b. *saa-p-araa-tarengere a ma-m-a-ini=na a*  
 3.AGR-CAUS-INCH-wet CORE RED-AV-STAT-small=DEF CORE  
*vanukanuka-ku.*  
 pants-1SG.GEN  
 'The child wetted my pants.'

(ii) **DIFFERENT TRANSITIVITY POSSIBILITIES FOR ADJECTIVAL ELEMENTS, NOUNS AND DYNAMIC VERBS.** In Lha'alua, a number of verbs can be used intransitively (inflected with an Actor voice marker (alternatively called intransitiviser)), transitively (inflected with a patient voice marker (alternatively called transitiviser)) or applicatively (inflected with a locative voice marker (alternatively called applicative)). For some verbs, the argument in S function in the intransitive clause relates to the argument in A function in the transitive clause and for others S relates to the argument in O function in the transitive clause.

(3.105) **S=A**

- a. *um-a-aala[=amu]<sub>S</sub> [vutukulhu]<sub>E</sub> na sakeralhe=na.*  
 AV-IRR-take=1PL.EXCL.NOM fish OBL river=DEF  
 'We will catch fish in the river.'
- b. *lhi-aala[-lhamu]<sub>A</sub> [vutukulhu]<sub>O</sub> na sakeralhe=na.*  
 PERF.ASP-take(PV)-1PL.EXCL.GEN fish OBL river=DEF  
 'We have caught the fish in the river.'

(3.106) **S=O**

- a. *ku pipici [a kiu'u=na]<sub>S</sub>.*  
 NEG split CORE tree/wood=DEF  
 'The wood is not split.'

b. *lhi-pu-pici-a[-lhamu]*<sub>A</sub>

[*kiu'u=na*]<sub>o</sub>.





### **3.5 Numerals**

In Lha'alua, numerals constitute a small set of closed lexical classes. Lha'alua is a structurally intact decimal system, i.e. 1-10. Basically, there are three sets of numerals: serial counting, nonhuman, and human. Nonhuman numerals and human numerals are used to modify nouns referring to nonhuman referents and human participants, respectively. The distinction can be found in cardinal numerals, in the

employed; conversely, when the hearer(s) is/are not included, exclusive forms are used.

Four types of personal pronouns can be distinguished in Lha'alua: nominative, genitive, independent, and absolute possessive pronouns. Nominative and genitive pronouns are bound, in that they cannot

(3.110) a. *m-a-calhia=u=mana=i*  
AV-STAT-know=2SG.NOM=IMPERF.

*kari takacilhi?*

Demonstrative pronouns are free forms that are used to refer to third person participants or nonhuman referents. They are equivalent to English words, e.g. ‘this’, ‘that’, ‘it’, ‘he/him’, ‘she/her’, and ‘they/them’. Very often, they co-occur with the definite marker =*na*. In terms of syntactic functions, they can occur as core arguments in S, E, A, and O functions.

- (3.112) a. *lhi-um-u=cu=i* [kana'a=na]<sub>S</sub>?  
 PERF.ASP-AV-eat=COS.ASP=Q 3.INDEP=DEF  
 ‘Has he eaten?’
- b. *u-a-vuru[=aku]<sub>S</sub>* [ilhamu]<sub>E</sub> [*na kani'i*]<sub>E</sub>.  
 AV-IRR-give=1SG.NOM 2PL.INDEP OBL this  
 ‘I will give you this.’
- c. *lhi-tulhuc-a=cu*  
 PERF.ASP-put.Derris.trifoliolate.so.as.to.let.it.flow.and.poison-PV=COS.ASP  
 [*a kana'a=na*]<sub>A</sub> [*a vutukulhu*]<sub>O</sub> *kiira*.  
 CORE 3.INDEP=DEF



*c. tainiini*

*kani'i*

(3.115) a. *m-u-capi-a=mau!*

AV-motion.on.foot-BOUND.ROOT-AV.IMP=STRONG.REQUEST

*m-u-a-elese=ita=mana*

***kana***

AV-motion.on.foot-IRR-together=1PL.INCL.NOM=IMPERF.ASP PAUSE.FILLER

*m-i<a>tungusu.*

AV-Ritual.of.Sacred.Shells<IRR>

‘Come down! We will still go to the Ritual of Sacred Shells (Chinese name:           ).’

b. *lhilhala*                                    *ia,*    *la-lima=mana*

ethnic.community.name    TOP    RED-five=IMPERF.ASP

*m-a-calhia*                    *m-asi-lha’a-lha’alua*            *kani’i*    ***kana’a***

AV-STAT-be.able.to    AV-speak-RED-Lha’alua    this            PAUSE.FILLER

*lhilhala.*

ethnic.community.name

‘Still five people are able to speak Lha’alua in this Lhilhala (Chinese name: Yanershe           ).’

(lit. As for the Lhilhala, still five people are able to speak Lha’alua in this Lhilhala.)

c. *m-a-aru=’ai*                    *vuvulungaa*    *taramuare=’ai*            *ka*    *tasau-isa*

AV-STAT-exist=MOD    mountain            procrastinate=MOD    CORE    dog-3.GEN

***kana***                    *m-icengelhe=mana=ami*            ***kana***                    *kuli*

PAUSE.FILLER    AV-chase=IMPERF.ASP=EVI    PAUSE.FILLER    animal    h                    tasau-ERx-    E

co-occur with the definite marker =*na*. In the texts, *kani'i* ‘this’ and *kana'a* ‘that’ often become *kani* and *kana*, in that the final syllable is left out.

(3.116) **Adnominal demonstratives: pre-modifiers**

a. <i>lhi-m-u-sala=aku</i>	<i>n</i>	<i>kana'a</i>
PERF.ASP-AV-motion.on.foot-road=1SG.NOM	OBL	that
<i>saa-saree-ana.</i>		
RED-s1		

---

plural. The plurality reading is acquired from the reduplicated noun or from the contexts. In other words, *kani'i* 'this' and *kana'a* 'that' may obtain the meanings of 'these' and 'those' in English equivalents, respectively.

### 3.7 Closed grammatical systems

This section discusses closed grammatical systems. Two types of closed grammatical systems are addressed in the following two subsections: construction markers (§3.7.1) and phrasal and clausal linkers (§3.7.2).

#### 3.7.1 Construction markers

In Lha'alua, three types of construction markers are identified: (i) topic markers (§7.2.2.1), (ii) linkers (§7.2.2.2) and (iii) case markers (§7.2.2.3). A topic marker is used to link a topicalised constituent and the rest of a sentence. In Lha'alua, a topic or topics can be linked to the rest of a sentence by the topic marker *a* or *ia*. Apart from, Lha'alua makes use of a special type of construction marker to link a head (usually a noun or a verb) with its following attribute (e.g. a demonstrative, noun, possessor, or relative clause). Tve)rrk on(s)-5946-1000(a)317fi lak aie i



- (3.119) a. *m-ali-lepenge*    *a*    [*'aavi*]    ***nua***    [*mu'u=na*]  
 AV-quarrel-finish    CORE    male.name    CONJ.COOR    female.name=DEF  
*m-ari-sangilhi*    *t<um>u-sa-sua=cu*  
 AV-verbal.action-BOUND.ROOT    cry<AV>-RED-two=COS.ASP  
*t<um>angi.*  
 cry<AV>  
 'After 'aavi and Mu'u quarreled, both of them cried.'
- b. *m-a-calhia*    *a*    [*ama-ku*]    ***nua***    [*ina-ku*]  
 AV-STAT-be.able.to    CORE    father-1SG.GEN    CONJ.COOR    mother-1SG.GEN  
*m-asi-a-lha'a-lha'alua.*  
 AV-speak-IRR-RED-Lha'alua  
 'My father and my mother are able to speak Lha'alua.'

(iii) **CONJUNCTIVE COORDINATOR *lha***. A coordinate construction can consist of different types of coordinands: words, phrases, clauses, or sentences. In Lha'alua, coordinands are of the same type within a coordinate construction; that is, they contain syntactic similarity and do not have any semantic infelicitousness. Examples of the conjunctive coordinator *lha* are provided below.

(3.120) **Coordinands: nouns/NPs**

- a. *c<um>a-caa-capa*    [*amalhe*]    ***lha***    [*tautau*]    *na*    *papa'a.*  
 RED<AV>-RED-broil    male.name    CONJ.COOR    male.name    OBL    meat  
 'Amalhe and Tautau are broiling meat.'
- b. *m-aa-lhuulhungu*    *a*    [*amalhe*]    ***lha***    [*tautau*]  
 AV-BE:LOC/TEMP-stream    CORE    male.name    CONJ.COOR    male.name  
*pasa-ula-ulaula'e.*  
 play-RED-BOUND.ROOT  
 'Amalhe and Tautau are playing at a stream.'
- c. *m-alhava*    *amalhe=na*    [*vuuru*]    ***lha***    [*ripase*]  
 AV-bring    male.name=DEF    bow    CONJ.COOR    arrow  
*m-u-sala*    *vuvulungaa*    *m-ere-ceka.*  
 AV-motion.on.foot-road    mountain    AV-hunt-hunt  
 'Amalhe brought a bow and an arrow to go to a mountain to hunt.'



widely in the world's languages" (Haspelmath 2007:7). Although in Lha'alua, monosynthesis of the type **A co-B**



### 3.7.2.1.2 Disjunctive coordinator

The particle *alha* functions as a coordinator marking disjunction. As illustrated below, the speaker addresses two alternatives in his utterance.

(3.127) *viaru=na maaci [avava] alha* [



## CHAPTER 4

### MORPHOLOGICAL UNITS AND MORPHOLOGICAL PROCESSES

Morphology is the study of the internal structure of words. This chapter aims to deal with fundamental issues of the internal structure of Lha'alua words. This chapter first explains the morphological type of Lha'alua (§4.1) and then introduces morphological units (§4.2), including morphemes and allomorphs (§4.2.1), roots (§4.2.2), stems (§4.2.3), affixes (§4.2.4), clitics (§4.2.5) and words (§4.2.6). Two morphological processes are discussed in §4.3: affixation (§4.3.1) and reduplication (§4.3.2).

#### 4.1 Morphological type

According to Dixon (2010a:226), a number of terms are adopted in describing the morphological type of a language, including, in alphabetical order, agglutinating, analytic, fusional, inflectional, isolating, polysynthetic and synthetic. Most Austronesian languages are characterised as synthetic-agglutinating (Blust 2009:343), and Lha'alua is also included in this morphological type. In Lha'alua, a word is usually composed of a largish number of morphemes (roots, affixes and clitics), but by and large, morpheme boundaries are clear. In other words, one can easily place a hyphen between a root and an affix and between each affix, showing that each

Another difficulty in segmenting morphemes in Lha'alua appears when a complex verb consists of a lexical prefix and a bound root. Usually, the lexical prefix conveys a general meaning. *The bound root, however, does not convey any particular meaning in isolation. The overall meaning is acquired by the combination of the lexical prefix and bound root.* For example, *m-ali-a-esepe* indicates 'close one's eyes'. While the lexical prefix *ali-* denotes 'action towards oneself', the root *esepe* does not indicate 'eyes'. In Lha'alua, when expressing 'eyes', one has to use *vulailhi*. Analogous examples exhibiting difficulties in segmenting morphemes are abundant in the Lha'alua grammar. Some similar examples are provided below. For ease of exposition, I adopt the gloss 'BOUND.ROOT' throughout the grammar.

(4.2) a. *m-i-ungu*

AV-action.concerning.location-BOUND.ROOT

'arrive'

b. *t<um>alhi-a-suu-sulu*

give.some.kind.of.mental.effect.by.verbal.action<AV>-IRR-RED-BOUND.ROOT

'to be joking'

## **4.2 Morphological units**

### **4.2.1 Morphemes and allomorphs**

A morpheme is the smallest meaningful unit in the grammar of a language and cannot be further decomposed into smaller meaningful parts. A distinction between free and bound morphemes and between lexical and grammatical morphemes can be drawn. This distinction is attested in some languages, e.g. Mantauran (Rukai), an Austronesian language of Taiwan (Zeitoun 2007:46).

- (4.3) a. *um-ulungu* ‘take off’  
 b. *um-arace* ‘bite’  
 c. *um-ilave* ‘chew’

The prefix *u-* is attached to the stem beginning with a labial consonant.

- (4.4) a. *u-pana* ‘shoot’  
 b. *u-vuru* ‘give’  
 c. *u-mia* ‘pass’

The infix <*um*> is attached to the stem beginning with a non-labial consonantal phoneme.

- (4.5) a. *s<um>a-sala* ‘to fix road’  
 b. *t<um>aeve* ‘cover’  
 c. *lh<um>avu* ‘wash (clothes)’  
 d. *l<um>a-liili* ‘to apply (ointment)’  
 e. *k<um>alii* ‘dig’  
 f. *c<um>ulhu* ‘burn’

#### 4.2.2 Roots

A root is ‘an unanalysable form that expresses the basic lexical content of the word’ (Payne 1997:24). It is the part of a word that is universal to a set of derived or inflected forms (if any), and is not further analysable into meaningful elements. Being morphologically simple, a root carries the primary part of meaning of the words in which it functions. If a root does not appear by itself in a meaningful way in a language, then it should be labeled as a bound root. In Lha’alua, roots can be divided into free roots and bound roots. The former can occur alone without affixes, whereas the latter cannot appear unaffixed. Examples of Lha’alua are presented below.

#### (4.6) Free roots

- |    |                         |                         |                   |             |
|----|-------------------------|-------------------------|-------------------|-------------|
| a. | <i>m-ari-tamaku</i>     | ‘smoke’                 | <i>tamaku</i>     | ‘cigarette’ |
| b. | <i>m-ara-ramucu</i>     | ‘wash hands’            | <i>ramucu</i>     | ‘hands’     |
| c. | <i>m-ali-likilhi</i>    | ‘board’                 | <i>likilhi</i>    | ‘vehicle’   |
| d. | <i>m-ari-’aapalataa</i> | ‘strike of a lightning’ | <i>’aapalataa</i> | ‘lightning’ |

(4.7) **Bound roots**

a. *m-a-pulhi*

‘white’

\**pulhi*





combinations of clitics; and the status of words including clitics, and of clitic-only words, (ix) relative ordering in clitic strings, (x) position with respect to what can be defined as affixes, (xi) the correlation of clitics with grammatical words, (xii) syntactic scope of clitics, (xiii) lexicalisation, and semantic and morphological idiosyncrasies, (xiv) clitic-specific syntactic rules, and (xv) correlation with morphological classes.

**b. word class of host: verbal negator**

*ku=aku um-a-ailhi maataata valhituku.*

NEG=1SG.NOM AV-IRR-deposit tomorrow money

‘I will not deposit money tomorrow.’

(iii) **TYPE OF HOST.** In terms of type of host, clitics can be classified as **fixed position clitics** and **floating clitics**. Fixed position clitics attach to the first constituent in a clause; however, a clause with topicalisation constitutes an exception. Examples can be seen below.

**(4.13) The first word in a clause**

a. *um-a-ailhi=aku maataata valhituku.*

AV-IRR-deposit=1SG.NOM tomorrow money

‘I will deposit money tomorrow.’

a'. *ku=aku um-a-ailhi maataata valhituku.*

NEG=1SG.NOM AV-IRR-deposit tomorrow money

‘I will not deposit money tomorrow.’

b. *m-a-vacuku=cu=aku.*

AV-STAT-full=COS.ASP=1SG.NOM

‘I am full16558(t)-2.1657001.96 432.8m 103b7( )-250.294( )]TJ 30.0177 -18.42 396 a

□□□□

(4.15) a. *salhmu=na*

water=DEF

‘the water’

b. *salhmu m-a-cici=na*

water AV-STAT-hot=DEF

‘the hot water’

c. *salhumu ka lhi-ima=cu-isa=na*

water LNK PERF.ASP-drink=COS.ASP-3.GEN=DEF

‘the water it has drunk’

Floating clitics can attach to various grammatical classes, depending on which of them is emphasised. For instance, the evidentiality marker =*ami* appears in different positions and attaches to different types of host, e.g. the subordinator *maaci* ‘if’, the negator *uka’a* ‘no’, the verb *lhava-a* ‘bring’ and the quantifier *riane* ‘all’ (see §6.2.3).

(iv)

b. *maaci* *m-ikaaci=cu*,  
if

*tualhi=cu-ku=i*

#### 4.2.6 Words

Words are units that comprise constituents at the phrase level and above. The word *word* has been used and defined in different ways to a varying degree, and has often been devoid of a clear distinction. Thus, it is of importance that certain elementary distinctions must be made: (i) between a



c. *um-a-urape a ama'a na 'evecenge.*  
 AV-IRR-sow CORE father OBL millet  
 'Father will sow millet.'

(4.22) Example of derivational prefixation: *u-* 'motion on foot'

*m-u-sala=ami a cucu-lhamu=na*  
 AV-motion.on.foot-road=EVI CORE person-1PL.EXCL.GEN=DEF  
*u-kiri-kirimi alemelhe.*  
 AV-RED-search/hunt wild.boar  
 'It is said that our people went to hunt wild boars.'

#### 4.3.1.2 Infixation

Infixation is a morphological process whereby a bound morpheme attaches within a root or stem. In Lha'alua, typical examples of infixation are irrealis marker <*a*> and Actor voice marker <*um*>. They are inflectional, since the word class of their stem

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(4.25) Example of derivational infixation: Actor voice marker <um>

*s<um>a-su-sulhate=aku.*

RED<AV>-RED-word/paper/book =1



(4.28) **Derivational: referring to a place where an action is performed** *taa-...-aa*

a. *taa-lhavu-aa*

‘laundry’ (lit. place to wash (clothes))

cf. *lh<um>avu* ‘wash (clothes)’

b. *taa-paalhim-aa*

‘a hut to scare birds away from farm’

cf. *m-alhimu* ‘scare birds away from farm’

c. *taa-paasin-aa*

‘bathroom’ (lit. place to bathe)

cf. *m-asinu* ‘bathe’

d. *taa-tialh-aa*

‘toilet’ (lit. place to defecate)

cf. *tii’i* ‘faeces’

### 4.3.2 Reduplication

Reduplication is a morphological process in which a root or stem or part of it is repeated.

t m aa.2



(4.29) **Full lexicalised reduplication**

- a. *taretare* ‘woodpecker’ (<\**tare*)
- b. *tautau* ‘male name’ (<\**tau*)
- c. *samesame* ‘pepper’ (<\**same*)
- d. *langelange* ‘expensive’ (<\**lange*)
- e. *tungatunga* ‘Jew’s harp’ (<\**tunga*)

(4.30) **Partial lexicalised reduplication**

- a. *tavelhevelhe* ‘banana’ (<\**velhe*)
- b. *takungukungu* ‘water spinach’ (<\**kungu*)
- c. *tapaupau* ‘mushroom’ (<\**pau*)
- d. *takaukau* ‘crested hawk’ (<\**kau*)
- e. *tapataparau* ‘Taluoliu Creek (Chinese name: ) area’ (<\**tapa*)

**4.3.2.2 Full reduplication**

Full reduplication refers to the copying of a whole root. Full reduplication differs from lexicalised reduplication in that reduplicated forms via lexicalised reduplication usually have no attested simpleeR5((i)-2.16558(s)-1.22997(e)3.74(d)-0.295187( )-k-0.295585( )-60.183

root/stem begins with a vowel (Blust 1998). This type of reduplication is reported to be extremely productive in a fairly high number of Formosan languages, e.g. Amis, Thao, Saisiyat, Siraya (Adelaar 2000), Pazeh, Puyuma, Atayal, and Paiwan. In Lha'alua, typical examples of (C)a reduplication are numerals and question words like 'how much/many' (§10.1.1) when referring to human participants.

- (4.33) a. *pa-piaini* 'how many (people)'  
 b. *ca-cilhi* 'one (person)'  
 c. *sa-sua* 'two (people)'  
 d. *ta-tulu* 'three (people)'  
 e. *a-u-pate* 'four (people)'  
 f. *la-lima* 'five (people)'  
 g. *a-e-neme* 'six (people)'  
 h. *pa-pitu* 'seven (people)'  
 i. *la-la-alu* 'eight (people)'  
 j. *sa-sia* 'nine (people)'

- (4.34) a. *ki-sa-sua* *k<um>ali tanalai.*  
 dig-RED-two dig<AV> peanut  
 'Two people dug peanuts.'  
 b. *pa-piaini* *a tukucu-isa?*  
 RED-how.much/many CORE friend-3.GEN  
 'How many friends do he have?' (lit. How many his friend?)

In Mantauran Rukai, *Ca* reduplication is always triggered by prefixation, e.g. *'ini-Ca* + verb 'oneself' and *ma-Ca* + verb 'reciprocal' (Zeitoun 2007:59). Similarly, (C)a reduplication, in addition to examples like numerals and question word 'how much/many', can be triggered by **lexical prefixation** or **infixation of Actor voice marker <um>** in Lha'alua. Semantically, this type of reduplication conveys the meaning of irrealis.

(4.35) (C)a reduplication triggered by lexical prefixation

- ini pai-ta-tealh-ani?*  
 where find-RED:IRR-ACHI-LV  
 'Where can (it) be found?' (lit. Where find?) (Semantics: irrealis)





- (4.46) a. *m-itungusu* ‘practice the Ritual of God of Shell’  
 b. *m-i<a>tungusu* ‘to practice the Ritual of God of Shell’  
 c. *m-i<a><tu>tungusu*  
 AV-Ritual.of.God.of.Shell<IRR><RED>  
 ‘to be practicing the Ritual of God of Shell’ (Semantics: progressive)
- (4.47) a. *lhi-angalhi* ‘have been from’  
 b. *lhi-a<nga>ngalhi*  
 PERF.ASP-from<RED>  
 ‘have ALL been from’ (Semantics: collectivity)
- (4.48) a. *lhuulhungu* ‘creek’  
 b. *m-u-lhuu<ngu>lhungu*  
 AV-motion.on.foot-creek<RED>  
 ‘keep on walking along a creek’ (Semantics: continuous)

**6 6 06**

(4.51) a.



- (4.57) a. *erece* ‘tight’  
 b. *e<ree>rece*  
 tight<RED>  
 ‘very tight’ (Semantics: intensification)

#### 4.3.2.6 (C)V(C)V- reduplication

(C)V(C)V- reduplication involves the copying of two syllables of a root or a stem. In case of a disyllabic stem, the whole stem is reduplicated. In Lha’alua, there is no example of a *disyllabic root* to which (C)V(C)V- reduplication applies. One example of a *disyllabic stem* is found in my corpus: *um-au-a-u* ‘to be eating’, which is a verb, indicating progressive.

- (4.58) a. *um-a-u* ‘to eat’  
 b. *um-au-a-u*  
 AV-RED-IRR-eat  
 ‘to be eating’ (Semantics: progressive)

In case of tri-syllabic and quadric-syllabic stems, (C)V(C)V- reduplication copies the first two syllables in examples (4.59) and (4.60), and reduplicates the second and third syllables in example (4.61). In case of tri-syllabic and quadric-syllabic roots, (C)V(C)V- reduplication copies the second and third syllables, as illustrated in example (4.62), and reduplicates the first two syllables, as shown in examples (4.63) to (4.70). Such examples like (4.61) and (4.62) are rare in my corpus. (C)V(C)V- reduplication conveys the meanings of distributivity in numerals, collectivity and diminutive/attenuative in adjectival elements, and diminutive/attenuative, collectivity, iterative, continuous, intensification, habitual and ‘do something excessively’ in verbs, and plurality and ‘the PLACE where something gathers or is gathered’ in nouns.

- (4.59) a. *ucani* ‘one (non-human)’  
 b. *a-uca-ucani*  
 A-RED-one  
 ‘each one (non-human)’ (Semantics: distributivity)

- (4.60) a. *m-a-calhia* ‘know’  
 b. *ta-maca-m-a-calhia*  
 TA-RED-AV-STAT-know  
 ‘know a little’ (Semantics: diminutive/attenuative)





- (4.73) a. *masu'u* 'fruit'  
 b. *maa-maa-masu=cu*  
 RED-RED-fruit=COS.ASP  
 'fruit repeatedly' (Semantics: iterative)

- (4.74) a. *alhame* 'bird'  
 b. *alha-alha-alhame*  
 RED-RED-bird  
 'birds' (Semantics: plurality)

The following example is unusual in that it involves full reduplication (a property this noun shares with other temporal nouns to denote distributivity; see §5.5.2) as well as triplication.

- (4.75) **Full reduplication + triplication:**  
 a. *aari* 'day'  
 b. *aari-aari-aari*  
 RED-RED-day  
 'every day' (Semantics: distributivity)

#### 4.3.2.8 Quadreduplication

Quadreduplication in Lha'alua is a morphological process consisting of reduplication of the same part or the totality of the stem *thrice* in a unitary process.

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## CHAPTER 5

### NOMINAL MORPHOLOGY

This chapter deals with nominal morphology. Nouns can be divided into several categories: common nouns (§5.1), kinship terms, person names, and family names (§5.2), locative nouns (§5.3) and temporal nouns (§5.4). These are all subclass of noun, based on their distinct morpho-syntactic characteristics (§3.2). Plurality and distributivity meanings are acquired via reduplication (§5.5).

#### 5.1 Common nouns

In Lha'alua, common nouns include all nouns referring to human and non-human referents, e.g. *cucu'u* 'person', *tasau* 'dog' and *vatu'u* 'stone', with the exception of kinship terms, person names, family names, locative nouns as well as temporal nouns. A brief sample list of common nouns is provided below, on the basis of several distinct semantic categories: persons, body parts, food and drink, animals, plants, nature and cultural artifacts.

##### (5.1) Common nouns: persons

- a. *alhaina* 'woman/wife'
- b. *alha'a* 'enemy'
- c. *cucumacu* 'aborigine'
- d. *kavurua* 'dwarf (folk tale)'
- e. *lhaamaama* 'old person'
- f. *lhakesaiana* 'mainlander'
- g. *lhalhusa* 'man/husband'
- h. *pakisiia'a* 'Minnan (ethnic name) person'
- i. *puutu* 'Hakka (ethnic name) person'
- j. *vulivaavalee/tukucu* 'friend'

##### (5.2) Common nouns: body parts

- a. *alheae* 'chin'
- b. *alhiasa* 'shoulder'
- c. *'avase* 'tongue'
- d. *'ukulhucu* 'body hair'

e.	<i>lhikelecelha</i>	‘heart (organ)’ <sup>26</sup>
f.	<i>ngiingisi</i>	‘pubic hair’
g.	<i>pali’i</i>	‘gall’
h.	<i>pelheke</i>	‘navel’
i.	<i>tapuunge</i>	‘elbow’
j.	<i>tuave’era</i>	‘arm’

**(5.3) Common nouns: food and drink**

a.	<i>’au</i>	‘soup’
b.	<i>camai</i>	‘side dish’
c.	<i>mailhi</i>	‘salt’
d.	<i>maisikici</i>	‘glutinous rice’
e.	<i>mapaci</i>	‘wine’
f.	<i>masu’u</i>	‘fruit’
g.	<i>papa’a</i>	‘meat’
h.	<i>salhumu</i>	‘water’
i.	<i>tangusulhu</i>	‘rice cake’
j.	<i>uuru</i>	‘cooked rice’

**(5.4) Common nouns: animals**

a.	<i>taalhiaputa</i>	‘firefly’
b.	<i>taavulhinga</i>	‘snail’
c.	<i>takulhu</i>	‘fox’
d.	<i>taralhai</i>	‘Chinese Goshawk’
e.	<i>tangalulhu</i>	‘earthworm’
f.	<i>tapuavuavu</i>	‘dove’
g.	<i>tapulhacenge</i>	‘monkey’
h.	<i>tarangau</i>	‘big fly’
i.	<i>taurungu</i>	‘Formosan muntjac’
j.	<i>tiilungesulhai</i>	‘dragonfly’

**(5.5) Common nouns: plants**

a.	<i>’arisange</i>	‘pigeon peas’
b.	<i>alenge</i>	‘pine tree’
c.	<i>erelha</i>	‘miscanthus’
d.	<i>lavalhi</i>	‘Asplenium nidus’

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<sup>26</sup> This word is different from the word *teke* ‘heart (mind)’ which is regarded as a location of mental process.



- e. *lhalungu* 'cogon grass'
- f. *talhiusu* 'mulberry'
- g. *talhivakuralhai* 'wild yam'
- h. *tapaupau* 'mushroom'
- i. *tavangalha* 'bean'
- j. *vukuri* 'yam'

**(5.6) Common nouns: nature**

- a. *'aapalataa* 'lightening'
- b. *'acangeralha* 'star'
- c. *'aravange* 'cave/hole'
- d. *lavuku* 'sand'
- e. *luulunga* 'cloud'
- f. *palhamera* 'dew'
- g. *sakeralhe* 'river'
- h. *sululunga* 'thunder'
- i. *urulha* 'snow'
- j. *valalhevalhe* 'rainbow'

**(5.7) Common nouns: cultural artifacts**

- a. *'akai* 'fish net'
- b. *'avange* 'boat/canoe'
- c. *limangulhu* 'spear'
- d. *lhuungu* 'mortar'
- e. *pangili* 'pestle'
- f. *pituka* 'bracelet'
- g. *ripase* 'arrow'
- h. *sikame* 'mat made of *Alpinia speciosa* leaf'
- i. *talaku* 'winnowing basket'
- j. *ngege*

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a noun itself. In example (c), ‘doctor’ consists of two prefixes, two reduplicants and one root which is a noun itself. In example (d), ‘child’ is composed of one reduplicant and one root which is an adjectival element. In example (e), ‘earth’ consists of one reduplicant, one suffix and one root which is a noun itself. In example (f), ‘broom’ is composed of two prefixes, one reduplicant and one root which is a noun itself. In example (g), ‘farmer’ consists of two prefixes and one root which is a noun itself.

**(5.8) Common nouns: miscellaneous**

a. *lhi-m-aku-a<lha>lhalua*

PERF.ASP-AV-PREFIX-elder.sibling<RED>

daughter-in-law'. They are not used for phatic communion and tabooed relationships in kinship terms. Kinship terminology distinguishes between different generations, e.g. great grandparent, grandparent, father/mother, sibling, child, grandchild, and so on. Sibling relations are differentiated in terms of relative age. For example, there are separate words for 'elder sibling' and 'younger sibling'.

A full list of Lha'alua kinship terms is provided below.

**Table 5.1: Kinship terms**

<b>Non-vocative forms</b>	<b>Meanings</b>
<i>tamu'u tulhulha</i>	'great grandparent'
<i>tamu'u tulhulha alhaina</i>	'great grandmother'



A full list of Lha'alua kinship terms and their corresponding vocative forms is provided below.

names have corresponding vocative forms. A full list of Lha'alua person names, including male and female, and their corresponding vocative forms (if any) is provided below.

**Table 5.3: Person names and their vocative forms<sup>29</sup>**

Female names	Male names
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word-medial vowel of a person name. Second, vowel shortening may apply to a long vowel of a person name in the word-medial position. Third, consonant deletion may apply to the initial consonant of a person name. Fourth, syllable deletion may apply to a person name in which a syllable in word-initial, word-medial and word-final positions is deleted, or two syllables in word-initial position are deleted. Fifth, partially suppletion may apply to a person name and its corresponding vocative form if they cannot be related to each other by (morpho-)phonological rules.<sup>30</sup>

These morphophonemic alternations together with examples are summarised and exemplified below.

(5.11)



### 5.2.2.2 Person names according to different life stages

As mentioned in §5.2.2.1, 12 names for female adults and 24 names for male adults are collected in my corpus. In this section, I will address person names in different life stages.

Person names of Lha'alua may vary according to different life stages, i.e. adults, (early) youths and seniors. The variation can be attested in female names and male names. A full list of Lha'alua person names according to different life stages is provided below, in terms of female and male names.

**Table 5.4: Female names according to different life stages<sup>31</sup>**

Names for adults	Names for (early) youths	Names for seniors
<i>'uusu</i>	?	<i>tam'uusu</i>
<i>apee</i>	?	<i>tanakeape</i>
<i>aruai</i>	?	<i>tamaaruai</i>
<i>eleke</i>	?	<i>talhivereke</i>
<i>inguruu</i>	?	<i>tamainguruu</i>
<i>kuate</i>	?	<i>tamakuate</i>
<i>langui</i>	?	<i>tamalangui</i>
<i>lhaa'u</i>	?	<i>tamlhaa'u</i>
<i>lhatingai</i>	?	<i>tamlhatingai</i>
<i>na'apu</i>	?	<i>tamna'apu</i>
<i>pii'i</i>	?	<i>tampii'i/tampi'i</i>
<i>vanau</i>	?	<i>taavanau</i>

<sup>31</sup> ? here means that the female name for (early) youth was not collected during fieldwork, the female name for (early) youth is no longer remembered by language speakers, or simply it has no name for



person names of youth, in that the genetically related language, Tsou, has person names according to different life stages. For example, the male adult named *Pasuya* was called *Sua* when he was a kid, and will be called *Amo Pasuya* when he is old.

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It is important to note that it is optional for many person names to undergo vowel deletion, i.e. *tama-* *tam-*. Omitting the vowel *a* does not give rise to any semantic or pragmatic difference. Also notice that when syllable deletion as shown in (5.14b) applies, i.e. *tama-* *ta-*, the nominal root of an adult name is always a 7162(s)-1.6d74(d).1648M .2

There is a correlation between (morpho-)phonological changes and *tama-* (cf. *tamalengale* ‘uncle’), as shown in (5.16a) to (5.16-d). Specifically, when these (morpho-)phonological changes take place, *tama-* always undergoes syllable deletion and becomes *ta-*.

### 5.2.2.3 Person names according to different social statuses and birth orders

In Lha’alua, person names may undergo morphophonemic alternations in order to reflect their variations in social status and birth order. While most person names remain unchanged, a small number of Lha’alua person names can be changed. A full list of Lha’alua person names in different social statuses from my own fieldwork is provided below, in terms of female and male names. Names undergoing morphophonemic alternations are shown in bold-face.

**Table 5.6: Female names according to different social statuses and birth orders**

Names for adults	The first-born child is a male	The first-born child is a female
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**Table 5.8: Seven person names of Lha'alua**

	Original name	Sex	New name after acquiring a son	New name after acquiring a daughter
1.	<i>apuu</i>	F	<i>ina-laa n-apuu</i>	<i>ina-lu k-apuu</i>
2.	<i>aruai</i>	F	<i>ina-laa n-aruai</i>	<i>ina-lu k-aruai</i>
3.	<i>iNuru</i>	F	<i>ina-laa n-inguru</i>	<i>ina-li k-inguru</i>
4.	<i>uuluuuu</i>	F	<i>ina-laa n-uuluuuu</i>	<i>ina-a p-uuluuuu</i>
5.	<i>vanau</i>	F	<i>ina-laa vanau</i>	<i>ina-lu ku-vanau</i>
6.	<i>amalu</i>	M	<i>ama-laa n-amalu</i>	<i>aa k-amalu</i>

7. *uu*





### **5.3 Locative nouns**

In light of grammatical relations, Lha'alua locative nouns can be distinguished from other nouns due to their limited functions. Locative nouns take oblique case markers in extended intransitive and transitive clauses, but take the core case markers

(5.21)



f. <i>relhece</i>	‘Chinese name: Kaochung Village	’
g. <i>savusa</i>	‘Chinese name: Tulongwan	’
h. <i>selhengane</i>	‘Chinese name: Jianchashao	’
i. <i>suaci</i>	‘Chinese name: Guohe	’
j. <i>taipake</i>	‘Chinese name: Taipei	’
k. <i>taivange</i>	‘Chinese name: Taiwan	’
l. <i>takaua</i>	‘Chinese name: Kaohsiung	’
m. <i>tamulasai</i>	‘Chinese name: Zhangshan	’
o. <i>taunga’ala</i>	‘Chinese name: Laonong	’
p. <i>tavangala</i>	‘Chinese name: Tinglaonong	’
q. <i>tavulungana</i>	‘Chinese name: Meixiutai	’
r. <i>tuvutavalhe</i>	‘Chinese name: Maolin	’

#### 5.3.4 Nouns referring to a ‘place where something gathers or is gathered, and an action is performed’

There are two subclasses of locative nouns, which need to be dealt with separately from other locative nouns, i.e. nouns referring to a place where something gathers or is gathered, and an action is performed.

(i) **CV reduplication plus -a**. *CV* reduplication plus *-a* derives names for plant farms and animal habitats from nouns referring to plants

- c. *cu-cumi'i-a*  
 'place where bears gather'  
 cf. *cumi'i* 'bear'
- d. *ta-tape'e-a*  
 'place where night owls gather'  
 cf. *tape'e* 'night owl'
- e. *ta-aurungu-a*  
 'place where Formosan muntjacs gather'  
 cf. *aurungu* 'Formosan muntjac'
- f. *vu-vutulhu-a*  
 'place where deer gather'  
 cf. *vutulhu* 'deer'

(ii) **CV̄- reduplication plus -a**. Analogous to CV- reduplication plus -a, CV̄- reduplication plus -a also derives names for plant farms and animal habitats from nouns referring to plants and animals. The difference between these two types lies in the *vowel length* of a reduplicant. In this type, the first syllable (consisting of a consonant plus *a long vowel*) of a nominal root is reduplicated, and -a is suffixed to the nominal root.

(5.27) **CV̄- reduplication plus -a: plants**

- vaa-vaake-a*  
 'tangerine/orange/lemon farm'  
 (lit. place where tangerines/oranges/lemons are gathered)  
 cf. *vaake* 'tangerine/orange'

(5.28) **CV̄- reduplication plus -a: animals**

- a. *vee-veete-a*  
 'place where Mikado Pheasants gather'  
 cf. *veete* 'Mikado Pheasant'
- b. *vii-viia-a*  
 'place where cobras gather'  
 cf. *viia* 'cobra'

(iii) **CVCV- reduplication plus -a**. One example in my corpus employs CVCV- reduplication plus -a. In this patterns, the first two syllables of a nominal root are reduplicated.



(5.32) **CV̄-reduplication plus -a plus =na**

a. *vee-veete-a*

‘place where Mikado Pheasants gather’

cf. *veete* ‘Mikado Pheasant’

b. *vee-veete-a=na*

‘the place where Mikado Pheasants gather’

Likewise, in CV̄ reduplication plus *-ana*, the definite marker *=na* can also co-occur with *-ana* to obtain definiteness effect.

(5.33) **CV̄-reduplication plus -ana plus =na**

a. *saa-saree-ana*

‘earth’ (lit. place where soil is gathered)

cf. *saree* ‘soil’

b. *saa-saree-ana=na*

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(5.34) **Circumfixation: *taa-... -aa***

- a. ***taa-lhavu-aa***  
'laundry' (lit. place to wash (clothes))  
cf. *lh<um>avu* 'wash (clothes)'
- b. ***taa-paalhim-aa***  
'a hut to scare birds away from farm'  
cf. *m-alhimu* 'scare birds away from farm'
- c. ***taa-paasin-aa***  
'bathroom' (lit. place to bathe)  
cf. *m-asinu* 'bathe'
- d. ***taa-tialh-aa***  
'toilet' (lit. place to defecate)  
cf. *tii'i* 'faeces'

In my corpus, one example appears to constitute an exception to the above-mentioned semantic generalisation that derived nouns referring to a place where an action is performed (via circumfixation) *generally* do not include nouns referring to plants and animals. As shown below, *ki* comes from *kiu'u* 'tree' and belongs to the semantic type of plant. However, this word virtually is not an exception because it obviously refers to a storage place for wood logs as fuel, not to a place to store trees as vegetation.

(5.35) **Circumfixation: *taa-... -aa***

- taa-ki-aa***  
'place to store trees/chopped wood'  
cf. *kiu'u* 'tree'

(ii) ***taa-...-a***. 'Plate' and 'traditional steamer' are derived through the circumfixation of *taa-...-a*. It is hard to generalise in terms of an overall semantic type, either location or instrument. There are two possibilities. In terms of the whole element, the derived noun is an instrument, whereas in terms of the nominal root, i.e. food, the derived noun is a location, in which food is placed.

(5.36) **Circumfixation: *taa-... -a***

- a. ***taa-camai-a***  
'plate'  
cf. *camai* 'side dish'

- b. *taa-culhuk-a*  
 ‘traditional steamer (cooking utensil)’  
 cf. *culhuku* ‘rice cake’

(iii) *ta-...-ana*. ‘Place to take’ is derived through circumfixation of *ta-...-ana*. Available data are not enough to make a decision in terms of an overall semantic type of nouns. The morpheme *-ana* may be regarded as the locative voice marker, in that they have the same morphological shape *-ana*. Tentatively, I consider the morpheme *-ana* as a morpheme that may be etymologically connected to the locative voice marker.

(5.37) **Circumfixation: *ta-... -ana***

- ta-aala-ana*  
 ‘place to take’  
 cf. *um-aala* ‘take’

#### 5.4 Temporal nouns

Dixon (2012) classifies time words into five classes: **duration**, **frequency** (including **general** and **specific**), **specific time spans, with respect to expectation** and **temporal shifters**. In Lha’alua, the five classes of time words are expressed in nouns. Duration, general/specific frequency and with respect to expectation have the secondary function as head of a predicate, whereas specific time spans and temporal shifters cannot. As shown in example (5.38), the temporal noun *raalhua* ‘a long time’ referring to duration occurs in the predicate position. When functioning as a predicate, it can exhibit some grammatical properties of being a predicate. For example, it takes the irrealis marker *a-* as well as attracts the interrogative clitic *=i*.

(5.38) **Duration: secondary function as head of a predicate**

- a-raalhua=i?*  
 IRR-a.long.time=Q  
 ‘How long is it?’

Temporal nouns referring to specific frequency (§5.4.1), specific time spans (§5.4.2) and temporal shifters (§5.4.3) are discussed in the following subsections.

### 5.4.1 Specific Frequency

Unlike general frequency, e.g. ‘often’, ‘sometimes’, etc, **specific frequency** expressions refer to specific temporal time spans, e.g. ‘annually’, ‘monthly’, etc.

Specific frequency in Lha’alua is expressed via full reduplication or triplication of a nominal free root (i.e. the copy of the same word). In examples (a) and (b), the whole nominal (free) root consisting of the meaning of specific frequency is reduplicated. In example (c), the nominal (free) root is reduplicated twice, i.e. triplication. No distinction between example (a) and example (c) can be found.

#### (5.39) Specific Frequency: full reduplication and triplication

a. *aari-aari*

RED-day

‘every day’

cf. *aari* ‘day’

b. *cailhi-cailhi*

RED-year

‘every year’

cf. *cailhi* ‘year’

c. *aari-aari-aari*

RED-RED-day

‘every day’

Specific frequency has the secondary function as head of a predicate. As illustrated in (5.40), the temporal noun *aari-aari* ‘every day’ referring to specific frequency occurs in the predicate position. When functioning as a predicate, it can show some grammatical characteristics of being a predicate. For example, it attracts

## 5.4.2 Specific time spans

Specific time spans are classified into **units**, e.g. ‘day’, ‘month’, ‘year’, etc and **parts of these spans**, e.g. ‘morning’, ‘afternoon’, ‘night-time’, ‘weekend’, ‘summer’, ‘winter’, ‘wet season’, etc.

Units referring to specific time spans are underived and morphologically simple, e.g. ‘day’, ‘month’ and ‘year’.

### (5.41) Units of specific time spans

- a. *aari* ‘day’
- b. *vulalhe* ‘month’
- c. *cailhi/cailha* ‘year’

Similar to nouns referring to units of specific time spans, some nouns referring to parts of specific time spans are underived and morphologically simple, e.g. ‘daytime’, ‘evening’ and ‘night’.

### (5.42) Parts of specific time spans

- a. *silhiane* ‘daytime’
- b. *ruvana* ‘evening’

- d. *alha-'amisana*  
 season-cold  
 'winter' (lit. cold season)

Analogous to 'seasons', names of rituals in Lha'alua are derived and morphologically complex. They can be derived via the addition of an irrealis marker, which comes from an affix *a-* or *Ca-* reduplication, to a free or bound root. Apart from the addition of an irrealis marker, the derived ritual name may take an Actor voice marker. In examples (a-c), the Actor voice marker <*um*> is present, and the first consonant of the verbal root is reduplicated. In example (d), the Actor voice marker is null, and the irrealis marker *a-* is prefixed to the stem. Notice that in example (d), the nominal root *'ilhicu* 'ghost' also undergoes *CVCV* reduplication.

(5.44) **Parts of specific time spans: rituals**

- a. *c<um>a-culhu lhialuvu*  
 RED<AV>-burn roof  
 'a Ritual name'
- b. *c<um>a-cukuru*  
 RED<AV>-?  
 'the Ritual for storing millet'
- c. *l<um>a-lemeke*  
 RED<AV>-plant  
 'the Ritual for sowing millet'
- d. *pari-a-'ilhi-'ilhicu*  
 blow/catch/pick-A-RED-ghost  
 'the Ritual for expelling ghost'

**5.4.3 Temporal shifters**

Temporal shifters are classified into **within today**, e.g. 'earlier on today', 'now' and 'later on today', and **outside today**, e.g. 'yesterday', 'tomorrow', 'next month', etc. In Lha'alua, some temporal shifters are underived and morphologically simple, e.g. 'these years/nowadays', 'now', 'past', 'yesterday', 'tomorrow' and 'this year'.

(5.45) **Temporal shifters:**

- a. *'inani*

- d. *kiira*                    ‘yesterday’
- e. *lhamuuna*                ‘now’
- f. *maataata*                ‘tomorrow’
- g. *mamisa*                   ‘this year’

Some temporal shifters are derived and morphologically complex. They are formed through **prefixation** and **compounding**.

(i) **PREFIXATION**. For example, temporal shifters like ‘next year’ and ‘tomorrow evening’ are derived via the addition of the temporal prefix *cu-*. Similarly, temporal shifters like ‘last year’ and ‘yesterday evening’ are derived via the addition of the temporal prefix *ki-*. These two temporal prefixes can be generalised as *ki-* ‘before the point of speaking’ and *cu-* ‘after the point of speaking’.

(5.46) **Temporal shifters formed through prefixation**

- a. *cu-cailhi*                ‘next year’
- b. *ki-cailhi*                ‘last year’
- c. *cu-ruvana*               ‘tomorrow evening’
- d. *ki-ruvana*               ‘yesterday evening’

(ii) **COMPOUNDING**. For instance, temporal shifters like ‘today’, ‘last month’, ‘the day after tomorrow’ and ‘the day before yesterday’ are derived via compounding. These temporal shifters form a phonological word. In term



(5.49) **Plurality: CV̄- triplication**

*lhaa-lhaa-lhaamaama*

RED-RED-old.person

‘old people’ (plurality)

cf. *lhaamaama* ‘old person’

(ii) **(C)V̄CV- TRIPLICATION**. The first two syllables (consisting of a consonant plus a short vowel in each syllable) of a nominal root are reduplicated twice.

(5.50) **Plurality: (C)V̄CV- triplication**

a. *vutu-vutu-vutukulhu*

RED-RED-fish

‘fish’ (plurality)

cf. *vutukulhu* ‘fish’

b. *kuli-kuli-kuli’i*

RED-RED-animal

‘animals’ (plurality)

cf. *kuli’i* ‘animal’

(iii) **(C)V(C)V- REDUPLICATION**. The first two syllables (consisting of a consonant plus a short vowel in each syllable) of a nominal root are reduplicated.

(5.51) **Plurality: (C)V(C)V- reduplication**

a. *alha-alhalua*

RED-elder.sibling

‘elder siblings’

cf. *alhalua* ‘elder sibling’

b. *lhimi-lhimilavae*

RED-younger.sibling

‘younger siblings’

cf. *lhimilavae* ‘younger sibling’

c. *kiu-kiu’u*

RED-tree

‘trees’ (plurality)

cf. *kiu’u* ‘tree’



(5.52) *kiu-kiu'u m-u<la>lengese lha*

numeral word *ucani* ‘one’ is reduplicated.

- (5.55) a. *a-uca-ucani alhame*  
A-RED-one bird  
‘every bird’ (**animal**)
- b. *a-uca-ucani kiu’u*  
A-RED-one tree  
‘every tree’ (**plant**)
- c. *a-uca-ucani ’acangeralha*  
A-RED-one star  
‘every star’ (**nature**)
- d. *a-uca-ucani papa’a*  
A-RED-one meat  
‘every piece of meat’ (**food**)
- e. *a-uca-ucani ’ukulhucu*  
A-RED-one body.hair  
‘every body hair’ (**body part**)
- f. *a-uca-ucani alhaina*  
A-RED-one woman  
‘every woman’ (**person**)
- g. *a-uca-ucani salia*  
A-RED-one house  
‘every house’ (**location**)
- h. *a-uca-ucani alha-m-a-cici*  
A-RED-one season-AV-STAT-hot  
‘every summer’ (**specific time spans**)

Temporal nouns conveying the distributivity meaning can occur in the predicate position or adjunct position.<sup>35</sup> As illustrated in (5.56), the temporal noun *aari-aari* ‘every day’ occurs in the predicate position. When functioning as a predicate, it can display some grammatical properties of being a predicate. For example, it attracts the second person clitic pronoun =*mu* and interrogative clitic =*i*. As shown in (5.57), the temporal noun *aari-aari* ‘every day’ occurs in the adjunct position. When functioning as an adjunct, it cannot exhibit any grammatical properties of being a predicate. As for its syntactic position, it is right-peripheral.

(5.56) **As a predicate**  
*aari-aari=mu=i*



## **CHAPTER 6**

### **VERBAL MORPHOLOGY**

c. *m-a-liselhe*    *a*    *ta'elha*    *kani'i=na*.  
AV-STAT-heavy    CORE

d. *m-alusape a alhaina kana'a=na.*

AV-sleep CORE woman that=DEF

'That woman sleeps.'

d'.*ku alusape a alhaina kana'a=na.*

NEG sleep CORE woman that=DEF

'That woman does/did not sleep.'

Similarly, in the following examples consisting of stative verbs, while Actor voice markers are present obligatorily in declarative sentences, the distinctions are neutralised in negative sentences. Since the stative marker *a-* is not omitted together with the Actor marker *m-* in negative sentences, the Actor marker is neutralised in negative sentences. Since the stative marker *a-* is not omitted together with the Actor marker *m-* in negative sentences, the Actor marker is neutralised in negative sentences.

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b. *tam langica palii=na.*

very tall male.name=DEF

‘Palii is tall.’

c. *tumalhae a laare m-aa-vuvulungaa.*

a.lot CORE flying.squirrel AV-BE:LOC/TEMP-mountain

‘Ther -mo-250.48 03



## 6.2 Non-spatial setting

Non-spatial setting includes a number of parameters, most of which are relevant to verbal morphology and discussed in the following subsections. These parameters consist of reality status (§6.2.1), aspect (§6.2.2), evidentiality (§6.2.3) and modality (§6.2.4).

### 6.2.1 Reality status

Based on Bhat's (1999) **prominence** typology, the three major verbal categories, i.e. tense, aspect and mood, can be classified into three different types: tense-prominent, aspect-prominent and mood-prominent. The decisive factor of these three is

<a> or *Ca/Caa* reduplication on the verb.

### **6.2.1.1 Realis**

In Lha'alua, realis refers to something that happened in the past, happens now or has happened. There is no overt marker to express realis. Very often, the perfective aspect marker *lhi*

- |    |                        |                   |
|----|------------------------|-------------------|
| c. | <i>m-arua-riri</i>     | ‘to speak’        |
| d. | <i>m-arua-taeve</i>    | ‘to uncover’      |
| e. | <i>m-i&lt;a&gt;ma</i>  | ‘to drink’        |
| f. | <i>m-i-a-ungu</i>      | ‘to arrive’       |
| g. | <i>u-a-pana</i>        | ‘to shoot’        |
| h. | <i>um-a-u</i>          | ‘to eat’          |
| i. | <i>um-a-ulungu</i>     | ‘to take off’     |
| j. | <i>palhu-a-salhi</i>   | ‘to sing songs’   |
| k. | <i>pi-a-salupu</i>     | ‘to fish’         |
| l. | <i>ku-a-elese</i>      | ‘to eat together’ |
| m. | <i>kuri-a-muamuare</i> | ‘to shoot slowly’ |

(6.10) **-a prefixation and <a> infixation**

- |    |                            |                 |
|----|----------------------------|-----------------|
| a. | <i>um-a-u=amu</i>          | <i>papa’a.</i>  |
|    | AV-IRR-eat=1PL.EXCL.NOM    | meat            |
|    | ‘We will eat meat.’        |                 |
| b. | <i>m-i&lt;a&gt;ma=ita</i>  | <i>salhumu.</i> |
|    | AV-drink<IRR>=1PL.INCL.NOM | water           |
|    | ‘We will drink water.’     |                 |

*Ca/Caa* reduplication may, like *a-* prefixation, occur before a free/bound root or a stem when there is a lexical prefix.

(6.11) ***Ca/Caa* reduplication**

- |    |                             |   |
|----|-----------------------------|---|
| a. | <i>m-aa-ta-tuvu-tuvuku</i>  | ‘to gulp’   |
| b. | <i>m-aa-taa-tumulhu</i>     | ‘to drink a lot’  |
| c. | <i>m-aa-maa-m-a-ini</i>     | ‘to drink a little’   |
| d. | <i>m-ai-ka-kepele</i>       | ‘to grasp’  |
| e. | <i>m-ai-sa-savu-savuane</i> | ‘to cure/heal’  |
| f. | <i>m-i-ka-kua</i>           | (m)250i294(i)2805439(a)-2.86965(i)-201255885(-)404542871763074(d)(0)298 |

When there is no lexical prefix but Actor voice marker <um> appears, *Ca* reduplication is used to express irrealis.

(6.13) ***Ca* reduplication with Actor voice marker <um>**

- |    |                             |   |
|----|-----------------------------|---|
| a. | <i>c&lt;um&gt;a-capa</i>    | ‘to broil’  |
| b. | <i>c&lt;um&gt;a-culhu</i>   | ‘to burn/start fire/set fire’   |
| c. | <i>k&lt;um&gt;a-kalii</i>   | ‘to dig’  |
| d. | <i>k&lt;um&gt;a-kita</i>    | ‘to look at’  |
| e. | <i>k&lt;um&gt;a-kurange</i> | ‘to bake (in stones or coals)’  |
| f. | <i>l&lt;um&gt;a-lemeke</i>  | ‘to plant’  |
| g. | <i>l&lt;um&gt;a-lili</i>    | ‘to apply (ointment)’   |
| h. | <i>lh&lt;um&gt;a-lhavu</i>  | ‘to wash (clothes)’   |
| i. | <i>s&lt;um&gt;a-sala</i>    | ‘to repair roads’   |
| j. | <i>s&lt;um&gt;a-sulhate</i> | ‘to write’  |
| k. | <i>t&lt;um&gt;a-tineene</i> | ‘to weave’  |
| l. | <i>t&lt;um&gt;a-timalha</i> | ‘to listen’   |
| m. | <i>t&lt;um&gt;a-tulhucu</i> | ‘to put Derris trifoliata (plant name) so as to let it<br>flow and poison (fish)’ |

(6.14) ***Ca* reduplication with Actor voice marker <um>**

*l<um>a-lemeke a langui mairange.*  
 IRR<AV>-plant CORE female.name sweet.potato  
 ‘Langui will plant sweet potatoes.’

When the Actor voice marker <um> is neutralised in negative constructions and interrogative constructions, *Ca/Caa* reduplication is not used to express irrealis. Instead, *a-* prefixation is employed.





(6.20) a. *m-a-calhia=u=mana*

(6.23) **The change-of-state aspect =cu with the inchoative prefix *araa-***

- a. *araa-cici=cu* 'becomes hot'
- b. *araa-lhaamaama=cu* 'becomes old'
- c. *araa-lhavai=cu* 'becomes drunk'
- d. *araa-ngane=cu* 'becomes dry'
- e. *araa-ruvana=cu* 'becomes evening'
- f. *araa-seesema=cu* 'becomes dark'
- g. *araa-tavulhiu=cu* 'becomes red'
- h. *araa-usalhe=cu* 'becomes rainy'
- i. *araa-*

(a')25(6250.295( 7g7( )-250.2952250.295( 7g5250.295( 7g)a(')25(1.f)28635/R142 [( )



(6.27) **Progressive aspect: CṼ-reduplication**

- a. *c<um>a-**caa**-capa* 'is broiling'
- b. *k<um>a-**kaa**-kalii* 'is digging'
- c. *k<um>a-**kii**-kita* 'is watching/looking at'
- d. *lh<um>a-**lhaa**-lhavu* 'is washing clothes'
- e. *m-usu-a-**tuu**-turu* 'is learning'
- f. *palhu-a-**saa**-salhi* 'is singing'
- g. *t<um>a-**taa**-tangi* 'is crying'

- (6.28) *t<um>a-**taa**-tangi*    *a*    *ma-m-a-ini*    *alhaina*    *kana'a=na.*  
RED<AV>-RED-cry    CORE    RED-AV-STAT-small    woman    that=DEF  
'That girl is crying'

(6.29) **Progressive aspect: (C)V(C)V-reduplication**

- a. *pasa-a-**ula**-ulaula'e* 'is playing'
- b. *um-a-**ia**-iape* 'is reading'
- c. *um-**au**-a-u* 'is eating'
- d. *um-a-**usa**-usalhe* 'is raining'

- (6.30) *um-**au**-a-u=*

*u s auis ecibi 78.8 6.709-4.7227( )-3295( )-20.99941*

(6.33)

(6.40) *t<um>a-tu-tu-turu a kana pakiaturua=na*  
 RED<AV>-RED-RED-teach CORE PAUSE.FILLER teacher=DEF  
*ma-m-a-ini=na um-iape.*  
 RED-AV-STAT-small=DEF AV-read/write  
 ‘The teacher keeps on teaching the children to read/write.’

**Iterative asp7=9Tf 24.0142 0 Td [(I)-1.22330 0 1 263.64 7 0 1 263.64 7 0 1 263.64 14(a)-0.205 0 0**

- (6.47) a. *puri-a-ngusu-ngusuu a tautau=na maaci m-alusape.*  
 PREFIX-IRR-RED-mouth CORE male.name=DEF when AV-sleep  
 ‘Tautau snores when sleeping.’
- b. *kani’i ia, ku karekelhe a-kiri-kirimi alemelhe.*  
 this/now TOP NEG often IRR-RED-search/hunt wild.boar  
 ‘Now, (we) do not hunt wild boars often.’  
 (lit. As for now, not often hunt wild boars)
- c. *ngalha-isa a-tama-tamalheng-a-mu aari-aari?*  
 what-3.AGR IRR-RED-do-PV-2PL.GEN RED-day  
 ‘What do you do every day?’

### 6.2.2.5 Diminutive/Attenuative aspect

Diminutive/attenuative aspect is an aspect that expresses the lessening degree of an event or state. In Lha’alua, diminutive/attenuative aspect is represented through three reduplication patterns, including *CV-*, *CṼ-* and *C<sub>1</sub>V<sub>1</sub>C<sub>2</sub>V<sub>2</sub>-*. They are

(6.51) *maacu*     *a*     *kana*     *kani'i*     *ta-maca-m-a-calhia='ai*  
concerning   LNK   PAUSE.FILLER   PAUSE.FILLER   TA-RED-AV-STA-

else's narration. In terms of its grammatical status, it is a clitic in that it does not shift the primary or secondary (if any) stress of its host. In addition, it is not selective to its host. As shown in examples (a-d), the reported evidential =*ami* occurring once per clause attaches to the subordinator *maaci* 'if', the negator *uka'a* 'no', the verb *lhava-a* 'bring' and the quantifier *riane* 'all', respectively.

(6.53) **Reported evidential =*ami***

- a. *maaci=ami kana'a m-u-sala*  
 if=EVI PAUSE.FILLER AV-motion.on.foot-road  
*m-ari-a-'intavange ia, ...*  
 AV-hand/head.motion-IRR-taro TOP  
 'It is said that if (one) goes to dig taros, ...'
- b. *uka'a=ami ka tualhe-isa m-uriulhu isana ka ilhaisa=ami*  
 NEG=EVI LNK can-3.GEN AV-exchange 3.INDEP CORE 3.INDEP=EVI  
*ka m-alhu-kaa-kua n m-ari-'intavange.*  
 LNK AV-get.to-RED-get.to LNK AV-hand/head.motion-taro  
 'It is said that he cannot exchange with him, so he goes to dig taros.'
- c. *saa-lhava-a=ami m-alhu-kua salia paa-paci um-u*  
 3.GEN-bring-PV=EVI AV-get.to-get.to home CAUS-die AV-eat  
*um-aala um-u.*  
 AV-take AV-eat  
 'It is said that he brought (something) to home, killed (it) to eat, and take (it) to eat.'
- d. *riane=ami alemelhe ka ma-m-a-ini-isa akuisa*  
 all=EVI wild.boar KA RED-AV-STAT-small-3.GEN when  
*lh<um>ivuru isana ka ta-turua-isa.*  
 stab<AV> 3.INDEP KA RED-cousin-3.GEN  
 'It is said that when her children all turned out wild boars, her cousin stabbed them.'

Omission of the evidential might produce unnatural and awkward sentences. The evidential does not have any epistemic extensions dealing with probability and speaker's evaluation of the trustworthiness of information.

The evidentiality marker can be combined with declarative sentences, but cannot be used in imperative sentences (§9.3.2).







most Formosan languages, Lha'alua employs morphological markings on the verb and noun to encode the grammatical subject. Instrumental/beneficiary voice is not attested in Lha'alua. Actor voice is introduced in §6.3.1, patient voice in §6.3.2, locative voice in §6.3.3 and case markers in §7.2.2.3.

### 6.3.1 Actor voice

Actor voice is understood as encoding a nominal argument with the semantic role of Actor, and profiling the nominal argument as the grammatical subject (see, for example, Blust 2009). In Lha'alua, Actor voice can be morphologically marked on the verb or zero-marked. Actor voice markers consist of *um-*, *<um>*, *u-* and *m-*. Three Actor voice markers are allomorphs: *um-*, *<um>* and *u-*. The choice of *<um>*, *m-* and  $\emptyset$  (i.e. zero-marking) is lexically determined. Examples of Actor voice markers *m-* and  $\emptyset$  are provided below.

#### (6.60) The Actor voice marker *m-*

- |    |                       |                               |
|----|-----------------------|-------------------------------|
| a. | <i>m-ai-ruruma</i>    | 'builds/built'                |
| b. | <i>m-ai-sapilhe</i>   | 'patches/patched'             |
| c. | <i>m-ai-veterae</i>   | 'sweeps/swept'                |
| d. | <i>m-aka-lhangulu</i> | 'swims/swam'                  |
| e. | <i>m-i'a'a</i>        | 'sells/sold'                  |
| f. | <i>m-iaivu</i>        | 'urinates/urinated'           |
| g. | <i>m-iane</i>         | 'pounds/pounded'              |
| j. | <i>m-ipilhilhi</i>    | 'flies/flew'                  |
| k. | <i>m-u-aleve</i>      | 'follows/followed on foot'    |
| h. | <i>m-u-culhu</i>      | 'burns/burned'                |
| i. | <i>m-u-likape</i>     | 'steals/stole'                |
| l. | <i>m-u-tii</i>        | 'defecates/defecated'         |
| m. | <i>m-e-cekelhe</i>    | 'comes/came'                  |
| n. | <i>m-ere-ceka</i>     | 'hunts/hunted'                |
| o. | <i>m-etelhekate</i>   | 'brings/brought down a fever' |

#### (6.61) *lhi-m-u-tii=u=i?*

PERF.ASP-AV-have-excrement=2SG.NOM=Q

'Did you defecate?' (lit. Did you have excrement?)

(6.62) **Zero marker**

- |                           |                                  |
|---------------------------|----------------------------------|
| a. <i>alhicu</i>          | ‘hopes/hoped’                    |
| b. <i>avavu</i>           | ‘cooks/cooked’                   |
| c. <i>kira-ma-maini</i>   | ‘walks/walked with little steps’ |
| d. <i>ke-seke-sekere</i>  | ‘finishes/finished eating’       |
| e. <i>paaripa</i>         | ‘blows/blew’                     |
| f. <i>puliulhu</i>        | ‘changes/changed’                |
| g. <i>pu’a</i>            | ‘sells/sold’                     |
| h. <i>ru-a-vici</i>       | ‘to bring’                       |
| i. <i>ru-pici</i>         | ‘tears/tore apart’               |
| j. <i>tara-ene</i>        | ‘washes/washed; brushes/brushed’ |
| k. <i>ti&lt;a&gt;pili</i> | ‘to choose’                      |

(6.63)

j. *um-usalhe* 'rains/rained'

(6.65) *um-iapi=u=i* *sulhate?*  
AV-read/write=2SG.NOM=Q book  
'Did you study?'

The prefix *u-* is attached to the root/stem beginning with a labial consonant.

(6.66) **The Actor voice marker *u-***

- a. *u-mia* 'passes/passed'
- b. *u-palu* 'waits/waited'
- c. *u-pana* 'shoots/shot'
- d. *u-pau* 'skins/skinned'
- e. *u-vuru* 'gives/gave'

(6.67) *lhi-u-pana=u=i* *kiira* *alemelhe?*  
PERF.ASP-AV-shoot=2SG.NOM=Q yesterday wild.boar  
'Did you shoot a wild boar?'

The infix <*um*> is attached to the root/stem beginning with any other phoneme.

(6.68) **The Actor voice marker <*um*>**

- a. *s<um>alhia* 'basks/basked in the sun'
- b. *s<um>amusu* 'wipes/wiped'
- c. *t<um>aeve* 'covers/covered'
- d. *t<um>ineene* 'weaves/wove; knits/knitted'
- e. *t<um>avilhae* 'hews/hewed'
- f. *l<em>ecenge* 'conceals/concealed'
- g. *c<um>ulhu* 'burns/burned; is/was on fire'
- h. *c<um>apa* 'broils/broiled'
- i. *c<um>avu* 'wraps/wrapped'

(6.69) *c<um>avu* *a* *langui* *vutukulhu.*  
wrap<AV> CORE female.name fish  
'Langui wrapped fish.'

When a root/stem begins with the unaspirated voiceless velar stop /k/ or voiceless lateral alveolar fricative /ɬ/ (written as *lh* in the orthography in this

grammar), the choice of Actor voice marker *u-* or *<um>* is lexically determined.

(6.70) **Unaspirated voiceless velar stop /k/**

- a. *k<um>alii*                    ‘digs/dag’
- b. *k<um>ita*                    ‘looks/looked; sees/saw’
- c. *u-kirimi*                    ‘searches/searched’

(6.71) *lhi-k<um>ita=aku*                    *eleke.*

PERF.ASP-look/see<AV>=1SG.NOM    female.name  
‘I saw Eleke.’

(6.72) **Voiceless lateral alveolar fricative /ɬ/**

- a. *lh<um>avu* VNOM                    ‘washes/washed (cl[E9T16436(w)-8.43027(a) ’2(7)-0.22.10.3015(e)3.74

(6.75) *saa-ia-pual-a* *lhalhusa a likilhi kiira.*  
 3.AGR-thrust/push-BOUND.ROOT-PV man CORE vehicle yesterday  
 ‘Men pushed the vehicle yesterday.’

(6.76) **Zero-marked patient voice**

a. *lhi-pu’a-isa langui kani’i eteve=na.*  
 PERF.ASP-buy(PV)-3.AGR female.name this sugar.cane=DEF  
 ‘Langui has bought the sugar cane.’

b. *i<a>ma-isa na’apu ’au.*  
 drink(PV)<IRR>-3.AGR female.name soup  
 ‘Na’apu will drink the soup.’

c. *ku lhi-timalha-ku na alhaama kiariari n*  
 NEG PERF.ASP-hear(PV)-1SG.GEN OBL ancestor past LNK  
*kana m-uritalhivae n alemelhe.*  
 PAUSE.FILLER AV-have.a.love.affair OBL wild.boar  
 ‘I didn’t hear ancestors have a love affair with a wild boar.’

**6.3.3 Locative voice**

Locative voice is understood as encoding a nominal argument with the semantic

(6.78) **The locative voice marker -i**

*a-vur-i-ta*                                      *elengane*      *a*              *tikuru*      *a*  
IRR-give-LV-1PL.INCL.GEN    male.name    CORE    clothes    LNK

*kana'a=na.*

that=DEF

‘We will give Elengane that clothes.’

(6.79) **The locative voice marker -ani**

*ini*              *pai-ta-tealh-ani?*

where    find-RED-ACHI-LV

‘Where can (it) be found?’ (lit. Where find?)

## 6.4 Imperatives

In Lha'alua, the intensity in imperatives can be represented by polite and strong requests. Uttering a mild command (i.e. polite request) can be represented by an addition of the suffix =*kia* to the verb. Strengthening a command (i.e. strong request) can be achieved by an addition of *cuu* , *cuu=mau* or =*mau* to the verb. In addition, imperatives are marked differently in different voic

to questions in (6.80f). Note that it is obligatory that the Actor voice marker on the verbal predicate must be omitted in negative constructions.

(6.80) **General negator *ku***

a. *ku u a ma-m-a-ini a langui.*

NEG eat CORE RED-AV-STAT-small GEN female.name

‘Langui’s child did not eat.’

b. *ku a-tavulhiu a tavalhilha-isa kana’a=na.*

NEG STAT-red CORE flower-3.AGR 3.INDEP=DEF

‘Her/his flower is not red.’

c. *ku karekelhe a ma-m-a-ini=na m-asi-lha’a-lha’alua.*

NEG often A RED-AV-STAT-small=DEF AV-speak-RED-Lha’alua

‘Children do not often speak Lha’alua.’

d. *ku a-tumulhu a valhituku-isa elele.*

NEG STAT-a.lot CORE money-3.AGR female.name.1655(NITJ/R7-0295535)0001f0.

### 6.5.3 Imperative negator *kuu*

The imperative negator *kuu* is uniquely employed in imperative constructions (see §9.2.2). It typically occurs together with the polite request marker =*kia*.

#### (6.82) Imperative negator *kuu*

- a. *kuu=kia*                                      *ia-taa-tumu*                                      *lhalhusa=na!*  
IMP.NEG=POLITE.REQUEST    thrust/push-RED-BOUND.ROOT    man=DEF  
'Please don't hit the man by fists.'
- b. *kuu=kia*                                      *u-sa-sipare*                                      *lhuulhungu*  
IMP.NEG=POLITE.REQUEST    motion.on.foot-IRR-BOUND.ROOT    creek  
*tapataparua!*  
creek.name  
'Please don't wade across Taluoliu Creek (Chinese name:                                      )!'
- c. *kuu=kia*                                      *a-kirimi*                                      *alemelhe!*  
IMP.NEG=POLITE.REQUEST    IRR-search    wild.boar  
'Please don't search wild boars!'
- d. *kuu=kia*                                      *a-lhamare*                                      *caacapukaa!*  
IMP.NEG=POLITE.REQUEST    IRR-set.fire.to.mountain    couch.grass.plain  
'Please don't set fire to mountains' couch grass plain!'
- e. *kuu=kia*  
IMP.NEG=POLITE.REQUEST  
*a-tulhucu*                                      *'arisakai!*  
IRR-put.Derris.trifoliolate.so.as.to.let.it.flow.and.poison    shrimp  
'Please don't put Derris trifoliolate (plant name) so as to let it flow and poison shrimp!'
- f. *kuu=kia*                                      *a-tineene*    *tikuru!*  
IMP.NEG=POLITE.REQUEST    IRR-knit    clothes  
'Please don't knit clothes!'

### 6.6 Third person agreement marking

In Lha'alua, there are two markers representing the **Actor** semantic role in third person, i.e. *-isa* and *saa-*.<sup>41</sup> They can either (i) manifest the Actor semantic role in third person singular or plural (occupying the argument slot in A function), or (ii) act as an agreement marker cross-referring the explicitly specified Actor semantic role. In

<sup>41</sup> Tsuchida (1976) analyzes *saa-* as special focus. Paul J. Li (1997a) treats it as referential focus. C.-L. Li (2009) argues that *saa-* is not a focus marker. This study agrees with C.-L. Li's (2009) observation. In this grammar, I analyse it as an agreement marker as well as a genitive pronoun.





- d. *saa-i-kua-a* ‘s/he/they/it prepares/prepared (water);  
s/he/they/it sets/set (fire)’
- e. *saa-kii-kirim-a* ‘s/he/they/it searches/searched’
- f. *saa-kilhamulhamu-a* ‘s/he/they/it tells/told’
- g. *saa-paitualh-a* ‘s/he/they/it finds/found’
- h. *saa-panu-a* ‘s/he/they/it shoots/shot’
- i. *saa-paraialh-a* ‘s/he/they/it divides/divided’
- j. *saa-parangetelh-a* ‘s/he/they/it cuts/cut off’
- k. *saa-para-pii-pici-a* ‘s/he/they/it is cutting’
- l. *saa-pati-lhalhusa* ‘s/he/they/it catches/caught the person’
- m. *saa-pi-taa-tamu* ‘s/he/they/it keeps/kept on sacrificing’
- n. *saa-pi-vaca-vacang-a* ‘s/he/they/it speaks/spoke nice words’

(6.87) ***saa-* as a genitive pronoun**

[*saa-*]<sub>A</sub> *panu-a=cu* [a *alemelhe*]<sub>O</sub>.  
3.GEN-shoot-PV=COS.ASP CORE wild.boar  
‘He shot the wild boar.’

(6.88) ***saa-* as a third person agreement marker**

*saa<sub>i</sub>-panu-a=cu* [*pali<sub>i</sub>*]<sub>A</sub> [a *alemelhe*]<sub>O</sub>.  
3.AGR-shoot-PV=COS.ASP male.name CORE wild.boar  
‘Pali<sub>i</sub> shot the wild boar.’

## 6.7 Lexical prefix copying

Lexical prefixes are well attested in some Formosan languages, such as Bunun (Nojima 1996; Su 2007), Kanakanavu (Wu 2007), Saisiyat (M. Yeh 2003a), Siraya (Adelaar 1997, 2004, Tsuchida 2000) and Tsou (Tsuchida 1976, 1990, H. Chang 2005). Similar phenomena can be attested in Lha’alua. C.-L. Li (2007, 2009) discusses prefix concord in Lha’alua and its structural implications in terms of a formalist account.

Adelaar (2004) makes a clear distinction between lexical prefixes and anticipating sequences in Siraya. Lexical prefixes form a verb with the bound root they are prefixed to. Anticipating sequences refer to the prefixed element which does not necessarily exhibit a formal agreement with the following lexical verb, but can also agree semantically or iconically. The distinction may be pertinent to Lha’alua. However, I leave this question open, and tentatively treat ‘*lexical prefixes vs.*

*anticipating sequences*’ in Siraya as ‘*lexical prefixes vs. lexical prefix copying*’ in Lha’alua throughout the grammar.

In Lha’alua, lexical prefix copying can occur concomitantly with adverbial elements like *-sakave*





bivalent intransitive verb. A is the argument of a plain transitive verb, whose referent does (or potentially could) initiate or control the activity. O is the argument of a plain transitive verb, whose referent is saliently affected by the activity.

There are five possibilities in marking A, O, E, and peripheral arguments: (i) there is distinct marking for each, (ii) E and peripheral argument(s) behave identically, (iii) O and E are marked in the same way, (iv) ther

determine the verbal clause type as well as the argument structure in Lha'alua.

There are three verbal clause patterns in Lha'alua: (i) Pattern 1: monovalent intransitive clauses, marked by the Actor voice marker (*um-/<um>/u-/m-/ø-*), (ii) Pattern 2: bivalent intransitive clauses, marked by the Actor voice marker (*um-/<um>/u-/m-/ø-*), and (iii) Pattern 3: (a) bivalent transitive clauses, marked by the

marked as oblique. More detailed discussions on the three grammatical mechanisms of marking core and peripheral arguments will be provided in §7.2.

In Figure 7.1, pattern 1 consisting of the Actor voice marker on verb is an intransitive clause. Pattern 2 containing the Actor







### **7.2.1 Constituent order**

The discussion of constituent order is divided into four parts: the order of full noun phrases (§7.2.1.1), the order of pronouns and agreement forms (§7.2.1.2), the order of elements in possessive constructions (§7.2.1.3), and the position of a topicalised constituent (§7.2.1.4).

(7.9) **Verbal clause headed by an existential verb:**

*m-a-aru a ma-m-a-ini-ku.*

AV-STAT-exist CORE RED-AV-STAT-small-1SG.GEN

‘I have a child/children.’ (lit. My child/children exist(s).)

(7.10) **Verbal clause headed by a negative verb:**

*uka’a ka ma-m-a-ini-isa na vilangane.*

NEG CORE RED-AV-STAT-small-3.GEN OBL place.name

‘Her/his child is not at Vilangane (Chinese name: Guohe ).’

In a clause containing more than one verbal predicate, it is the first verbal predicate in the string of verbal predicates that is treated as the main predicate. (The main predicate is the element whereby bound pronouns, aspectual markers, and modality markers are attracted to.) In other words, in clauses containing both one (or more) verb (e.g. existential, negative, and adverbial) and a lexical verb, the first verb

In addition, in clauses consisting of more than one verbal predicate, the noun phrase in A/S function *always* occurs immediately after the main predicate (i.e. an **adverbial verb**), rather than immediately after the lexical verb. As shown in (7.13), the noun phrase *ma-m-a-ini* ‘child’ in A function occurs immediately after the main predicate *karekelhe* ‘often’.

(7.13) Verbal clause headed by an ad-2.45995(e)3.74(d)-0.295585(95585(u)-4.33117(.Td01(a)-0.)-4.3



followed by a locative NP (oblique-marked if the case marker is present) or a temporal expression. When a locative NP or a temporal expression occurs, it can appear either immediately before or immediately after the NP in E function. In example (a), in a bivalent intransitive clause marked by *um-*, the verb *um-a-ulhi* ‘will borrow’ occurs clause initially and is followed first by the NP ‘*angai*’ ‘male name’ in S function, then by the NP *sulhati-u* ‘your book’ in E function, and then by the temporal NP *maataata* ‘tomorrow’. In example (b), in a bivalent <*um*> intransitive clause, the verb *l<um>a-lemeke* ‘will plant’ occurs clause initially and is followed first by the NP *eleke* ‘female name’ in S function, then by the NP *mairange* ‘sweet potatoes’ in E function, and then by the temporal expression *cu-cailhi* ‘next year’. In example (c), in a bivalent *u-* intransitive clause, the verb *u-a-pana* ‘will hunt’ occurs in clause-initial position and precedes the NP *lhalhusa* ‘men’ in S function and then by the NP *vutulhu* ‘deer’ in E function. In example (d), in a bivalent *u-* intransitive clause, the verb *m-i<a>ma* ‘will drink’ occurs in clause-initial position and precedes the NP ‘*angai*’ ‘male name’ in S function, and then by the NP *mapaci* ‘wine’ in E function. In example (e), in a bivalent  $\emptyset$ - intransitive clause, the verb *lhi-luliulhu* ‘have changed’ appears clause-initially and precedes the NP *cucu takua-’i-’iare* ‘workers’ in S function and then the NP *tikuru-isa* ‘their clothes’ in E function.

(7.16) **Bivalent intransitive clause, marked by the Actor voice marker**

(*um-/<um>/u-/m-/∅-*)

- a. *um-a-ulhi* [’*angai*]<sub>S</sub> [*sulhati-u*]<sub>E</sub> *maataata*.  
 AV-IRR-borrow male.name book-2SG.GEN tomorrow  
 ‘angai will borrow your book tomorrow.’
- b. *l<um>a-lemeke* [*a eleke*]<sub>S</sub> [*mairange*]<sub>E</sub> *cu-cailhi*.  
 IRR<AV>-plant CORE female.name sweet.potato IRR-year  
 ‘Eleke will plant sweet potatoes next year.’
- c. *u-a-pana* [*lhalhusa*]<sub>S</sub> [*na vutulhu*]<sub>E</sub>.  
 AV-IRR-shoot/hunt man OBL deer  
 ‘The men will hunt deer.’
- d. *m-i<a>ma* [’*angai*]<sub>S</sub> [*mapaci*]<sub>E</sub>.  
 AV-drink<IRR> male.name wine  
 ‘angai





(7.18) **Bivalent transitive clause, marked by the locative voice marker (i.e.**

**-a(na))**

a. *lhi-aala-ana*[-lhamu]<sub>A</sub>                      [*a masu'u-isa alhalua*]<sub>O</sub>.

PERF.ASP-take-LV-1PL.EXCL.GEN    CORE    fruit-3.AGR    elder.sibling

i 447.48 720. lu5585(g)-0.2951.295589(u)-f 013(e)3.74(l)-2.16558(d)-0.s 447.48 720.2Q-22Q-

nominative pronouns. The order of elements in possessive constructions will be discussed in §7.2.1.3.

Besides, genitive pronouns when functioning as A arguments are phonologically

(7.20) **Verbal clause headed by a lexical verb: the first and second person pronoun in S function (marked as nominative)**

a. *um-au-a-u*[=*amu*]<sub>S</sub>                      [*uuru*]<sub>E</sub>

person pronoun in A function (marked as genitive), unlike a clause with only one predicate (i.e. a lexical verb), cannot be attached to the main predicate occurring in the sentence-initial position.

(7.23) **Verbal clause headed by a negative verb**

\**ku-ku*            *a-vura='ai*    *isana*    *valhituku*.  
NEG-1SG.GEN    IRR-give=MOD    3.INDEP    money  
'Perhaps I will not give him/her money.'

(7.24) **Verbal clause headed by an adverbial verb**

\**karekelhe-lhamu*    *m-u-saa-sala*.  
often-1PL.EXCL.GEN    AV-motion.on.foot-RED-road  
'We often walk.'

Owing to the particular selectivity to host, genitive pronouns are analysed as affixes; in contrast, nominative pronouns are analysed as clitics in that they are not selective with respect to their host.



genitive bound pronouns (i.e. affixes). Firstly, while genitive bound pronouns always attach *after* their verbal host, the agreement form *saa-* always attaches *before* its verbal host. As illustrated in (7.31), the genitive bound pronoun *-ta* ‘1PL.INCL.GEN’ follows its host, but in (7.32), the agreement form *saa-* precedes its host.

**(7.31) A genitive bound pronoun attaches after its host**

*i*<*a*>*ma-ta*                                      *salhumu*.

drink(PV)<IRR>-1PL.INCL.GEN    water

‘We will drink the water’

(7.35) **The agreement form *saa-* attaches before its host**

\**i*<*a*>*ma-lhamu*                      *saa-salhumu*    *na'apu*.  
drink(PV)<IRR>-1PL.EXCL.GEN    3.AGR-water    female.name  
'We will drink Na'pu's water.'

**7.2.1.3 The order of elements in possessive constructions**

This section centres on the discussion on the order between possessors and possessed nouns in possessive constructions.

In Lha'alua, possessive constructions resemble unmarked main clause structures in having the head noun occur before its attribute. In a single-possessor possessive construction, the head noun (i.e. the possessed noun) precedes the dependent noun (i.e. the possessor). The possessor in possessive constructions can be expressed by a bare

(7.39) **Single-possessor possessive construction:** N<sub>head</sub> [-Gen<sub>possessor</sub> (first, second or third person)]

a. *ku tukucu[-ku] a kana'a.*

NEG friend-1SG.GEN CORE 3.INDEP

'He is not my friend.'

b. *araa-tavulhiu a tikuru[-u].*

INCH-red CORE clothes-2SG.GEN

'Your clothes become red.'

c. *maacu a unguhu[-isa] ia, m-a-tavulhiu meemea.*

concerning LNK foot(animal)-3.GEN TOP AV-STAT-red all

'Concerning its feet, (they are) all red.'

In a multiple-possessor possessive construction, the possessed noun phrase precedes the dependent noun phrases, and each dependent noun phrase can contain a further possessed noun followed by a possessor, as in (7.40) and (7.41).

(7.40) **Multiple-possessor possessive construction**

*maacu a viravira-isa [vungu[-isa]] ia, m-a-tavulhiu.*

concerning LNK rooster's.comb-3.AGR head-3.GEN TOP AV-STAT-red

'Concerning the rooster's comb of its head, (it is) red.'

(7.41) **Multiple-possessor possessive construction**

*lhi-k<um>ita=aku 'alhingu-isa [ka ma-m-a-ini*

PERF.ASP-look/see<AV>=1SG.NOM shadow-3.AGR GEN RED-AV-STAT-small

[*langui*]].

female.name

'I saw a shadow of Langui's children.'

One thing to be noted from the above examples is that the head-dependent



(7.42)

(7.45) **Topicalisation of a core argument in bivalent intransitive clause in S function**

*ama'a=na ia*

The topicalised constituent is not limited to occurrence in a verbal clause pattern.

(7.52) **Topicalisation of a clause**

a. *maacu*     *a*     *vilangane*     *ia,*     *a-upati=cu*     *a*  
concerning   LNK   place.name   TOP   RED

(7.54) **Only one topic: a peripheral argument does not precede a verb phrase**

[*lhi-u-pana*            *'ukui kiira*]        *ia, ama-kuu.*

PERF.ASP-AV-shoot    goat        yesterday    TOP    father-1SG.GEN

‘My father shot a goat yesterday.’

(lit. As for shooting a goat yesterday, my father (did it).)

## 7.2.2 Construction markers

Three types of construction markers are identified in Lha'alua: (i) topic markers, (ii) linkers, and (iii) case markers. The first two types of construction markers are discussed in §7.2.2.1 and in §7.2.2.2, respectively. The case markers are discussed in §7.2.2.3.

### 7.2.2.1 Topic markers *a/ia*

A topic marker is an element that links a topicalised constituent and the rest of a sentence. In Lha'alua, a topic or topics can be linked to the rest of a sentence by the topic marker *a* or *ia*. As shown in (7.55) and (7.56), the topics *mapaci* ‘wine’ and *maacu*

(7.57) **Topicalisation with no topic marker**

a. *vaavararaa=na, t<um>angura=cu seesenge.*

dry.field=DEF grow<AV>=COS.ASP grass

‘Grass grows in the dry field.’

(lit. As for the dry field, (it) grows grass.)

(7.59)

the entity-denoting nouns *ma-m-a-ini* ‘children’ and *cucu’u* ‘person’, respectively.

(7.63) **Link a head noun with a demonstrative**

a. *m-a-rumuku*    *a*        *ma-m-a-ini*        *a*    *kana’a*<sup>4e</sup>





Three remarks with respect to linkers can be made in Lha'alua. Firstly, no distinction between *a* and *ka* can be attested. Secondly, *a* and *ka* are often omitted in texts and in colloquial speech. As illustrated in (7.69), the entity-denoting noun *tasau-ku* 'my dog' occurs with the property-denoting word *m-a-licece* 'black' with no linking marker. In (7.70), the numeral *ucani* 'one' occurs with its dependent noun *likilhi-ku* 'my vehicle' without a linking marker. Also, in (7.71), the demonstrative *kana'a* 'that' occurs with the head nouns *ma-m-a-ini* 'child' and *tasau* 'dog' without a linker.

(7.69) **Link a head noun (entity-denoting) with an adjectival element (property-denoting) without a linking marker**

*m-a-arū a tasau-ku m-a-licece.*  
 AV-STAT-exist CORE dog-1SG.GEN AV-STAT-black  
 'I have a black dog.'

(7.70) **Link a numeral with a noun without a linking marker**

*m-a-arū a ucani likilhi-ku um-arū-a-sapalhe.*  
 AV-STAT-exist CORE one vehicle-1SG.GEN AV-use-A-foot  
 'I have one bicycle.' (lit. My one foot-use vehicle exists.)

(7.71) **Link a demonstrative with a head noun without a linking marker**

*lhi-k<um>ita ma-m-a-ini kana'a na tasau*  
 PERF.ASP-look/see<AV> RED-AV-STAT-small that OBL dog

(7.72) **Link a demonstrative with a head noun without a linking marker**

*maacu ka alhame a kani'i ia, m-aa n kani'i*  
concerning LNK bird LNK this TOP AV-BE:LOC/TEMP OBL this  
*mapulhare.*

a.flat.land.of.low.altitude

‘Concerning this (type of) bird, (it perches) at a flat land of low altitude (tableland).’

(b) When a numeral occurs with a classifier, no linking marker is used. As shown in (7.73), when a numeral occurs with the classifier *takupilhi* ‘bowl’, they are not linked by any marker.

(7.73) **Link a numeral with a noun without a linking marker**

*tainiini a liulhu-isa kani'i ucani [takupilhi suva]=na.*  
how.much CORE price-3.GEN this one bowl noodle=DEF

‘How much is this bowl of noodle?’

(lit. How much its price the this one bowl noodle?)

(c) When a numeral and an adjectival element (property-denoting) occur with a noun (entity-denoting), no linking marker is used. As shown in (7.74), when a numeral *ucani* ‘one’ and an property-denoting word *taisa* ‘big’ occur with the entity-denoting noun *aravange* ‘cave’, they are not linked by any marker.

(7.74) **Link a numeral and an adjectival element (property-**



- (7.75) **The sole argument (i.e. in S function) of the monovalent intransitive clause without being marked by either *a* or *ka***  
*tam m-a-vacange vulailhi ina-ku.*  
 very AV-STAT-good eye mother-1SG.GEN  
 ‘My mother’s eyes are very beautiful.’
- (7.76) **The argument in S function of the bivalent intransitive clause without being marked by either *a* or *ka***  
*m-i<a>ma lhaamaama mapaci.*  
 AV-drink<IRR> old.person wine  
 ‘The old person will drink wine.’
- (7.77) **A non-Actor argument in O function of the bivalent transitive clause without being marked by either *a* or *ka***  
*lhi-aala cucu’u vutukulhu.*  
 PERF.ASP-take(PV) person fish  
 ‘The person has caught the fish.’
- (7.78) **The Actor argument in A function of the bivalent transitive clause (marked by the patient voice marker (-*a*/- $\emptyset$ )) without being marked by the core case *a* or *ka***  
*lhi-aala cucu’u=na papa’a.*  
 PERF.ASP-take(PV) person=DEF meat  
 ‘The person took the meat.’
- (7.79) **The Actor argument in A function of the bivalent transitive clause (marked by the locative voice marker (i.e. -*a*(*na*))) without being marked by the core case *a* or *ka***  
*lhi-aala-ana ma-m-a-ini cacalaisa ina-ku.*

patient voice marker (-a/-ø)

**(7.82) Mark the sole argument (i.e. in S function) of the monovalent intransitive**







(7.89) **Mark a place name (with a nondirectional interpretation)**

*maacu ka lhilhala ia, mairalhu*

concerning LNK ethnic.community.name TOP originally

*m-a-ulha-ulhangi=cu n kani'i kalevenga=na.*

AV-STAT-RED-stay=COS.ASP OBL this place.name=DEF

‘Concerning Lhilhala (Chinese name: Yanershe ), they originally stayed in the Kalevenga (Chinese name: Taoyuan Village ).’

(7.90) **Mark a common location noun (with a nondirectional interpretation)**

*ilhalhamu ia, m-a-aruc cu n kani'i*

1PL.EXCL.INDEP TOP AV-STAT-exist=COS.ASP OBL this

*saa-saree-ana.*

RED-soil/dirt-LOC.NMZ

‘We lived in this place.’ (lit. As for us, (we) existed in this place.)

(7.91) **Mark an orientation and directional noun (with a directional interpretation)**

*m-ita-levenge a cucu'u na 'ilikusu a kiu'u taise=na.*

AV-hide-hide CORE person OBL back GEN trer5 r17(-)-0.146571(a)-0.29558585(i)-2-1



range of grammatical functions: it can mark not only an indefinite or nonindividuated theme of the bivalent intransitive clause in E function, but also a location noun, an instrumental noun, a beneficiary noun, and a comitative noun. Paralleling to core case markers (§7.2.2.3.1) and genitive case markers (§7.2.2.3.3), the oblique case marker *n(a)* can be omitted. As exemplified in (7.97), the indefinite or nonindividuated themes *alemelhe* ‘wild boar’ and *uuru* ‘rice’ are not case-marked by *n(a)*.

(7.97) **Unmarked indefinite or nonindividuated theme of the bivalent intransitive clause**

- a. *kuri-a-saka-sakave=aku*                      *kuri-vuuru*    ***alemelhe***    *maataata*.  
 shoot-IRR-RED-stealthily=1SG.NOM    shoot-bow    wild.boar    tomorrow  
 ‘I will shoot a wild boar with a bow stealthily tomorrow.’
- b. *ku-a-elese=ita*                                      *maataata*    *um-u*    ***uuru***.  
 eat-IRR-together=1PL.INCL.NOM    tomorrow    AV-eat    rice  
 ‘We will have a meal together tomorrow.’  
 (lit. We will eat rice together tomorrow.)

**7.2.2.3.3 The genitive case markers *a* and *ka***

In Lha’alua, genitive case markers have two forms: *a* and *ka*. They link the arguments of possessors and possessees in possessive constructions. As shown in (7.98a) and (7.98b), the forms *a* and *ka* can mark common nouns (possessors) *kiu’u* ‘tree’ and *papa’a* ‘meat’, respectively. Also, as shown in (7.99a) and (7.99b), the forms *a* and *ka* can mark personal names (possessors) *eleke* ‘female name’ and *langui* ‘female name’, respectively.

(7.98) **Mark a possessor (a common noun)**

- a. *m-ita-levenge*    *a*                      *ma-m-a-ini*                      *na*    ***’ilikusu***    *a*    ***kiu’u***  
 AV-hide-hide    CORE    RED-AV-STAT-small    OBL    back    GEN    tree  
***taisa=na***.  
 big=DEF  
 ‘The child hid at the back of the big tree.’
- b. *tam*    *m-a-tumulhu*    *a*                      ***’urai-isa***    ***ka***    ***papa’a=na***.  
 very    AV-STAT-a.lot    CORE    fat-3.AGR    GEN    meat=DEF  
 ‘The fat of the meat is a lot.’

(7.99) **Mark a possessor (a personal name)**

a. *pai-tealh-a=cu*            *a*        *ilhalhamu*            *a*        ***valhituku***  
find-ACHI-

discussion of personal pronoun and agreement forms. Section 7.2.3.1 discusses the Lha'alua personal pronoun system. Section 7.2.3.2 discusses the agreement forms.

### 7.2.3.1 Personal pronoun systems

Unlike full noun phrases, personal pronouns in Lha'alua exhibit formal differences depending on their syntactic functions. The forms and functions of Lha'alua personal pronouns are summarised in Table 7.3.

**Table 7.3: Personal pronouns**

	bound		free	
	clitic	affix	independent	absolute possessive
	nominative	genitive		
1SG	= <i>aku</i>	- <i>ku</i>	<i>ilha-ku</i>	<i>isikana-ku</i>
2SG	= <i>u</i>	- <i>u</i>	<i>ilha-u</i>	<i>isikana-u</i>
3SG	-	- <i>isa</i> (3PL) <sup>47</sup> , <i>saa-</i> (3PL)	<i>isa=na</i> (3PL)	



e. *lhi-tu-puru=cu[=amu]<sub>S</sub>*.

PERF.ASP-sit.down-BOUND.ROOT=COS.ASP=1PL.EXCL.NOM

'We have sat down.'

(7.103) **Nominative clitic pronoun as the Actor argument in S function of a bivalent intransitive clause, marked by the Actor voice marker**

(*um-/<um>/u-/m-/ø-*)

a. *um-a-u[=amu]<sub>S</sub>* [vutukulhu]<sub>E</sub>.

AV-IRR-eat=1PL.EXCL.NOM fish

'We will eat fish.'

b. *l<um>a-lemeke[=aku]<sub>S</sub>* ['intavange]<sub>E</sub>.

IRR<AV>-plant=1SG.NOM taro

'I will plant taros.'

c. *u-palu-palu[=amu]<sub>S</sub>* [na cucu'u=na]<sub>E</sub>.

AV-RED-wait=1PL.EXCL.NOM OBL person=DEF

'We were waiting for the person.'

*u-palu-palu[=amu]<sub>S</sub>* [na cucu'u=na]<sub>E</sub> maata ta.

AV-thrusr-250.295( )-250.295( )-250.295( )-250.295(o)-0.29(s)-1.2292-250.295( )5( )]TJ /R7 9

0-2(5)0263-2939-78 467e25



'1PL.EXCL.GEN' and *-ta* '1PL.INCL.GEN

- d. 1PL.INCL: *isikana* + **-ta**                    *isikanata*                    ‘ours’  
 e. 1PL.EXCL: *isikana* + **-lhamu**            *isikanalhamu*            ‘ours’  
 f. 2PL:            *isikana* + **-mu**                    *isikanamu*                    ‘yours’  
 g. 3PL:            *isikana* + **-isa**                    *isikanaisa*                    ‘theirs’

Although both genitive pronouns and absolute possessive pronouns can express possession in Lha’alua, they differ in their distribution. Specifically, genitive

pronouns must attach to the preceding NP (S21644(SG)295836(1)-48(R774.n)105892(250.25)

independent pronouns is quite clear, in that morpheme breaks can be easily recognised. For example, =*na* is the definiteness marker.

(7.110) **The formative of independent pronouns**

a. 1SG:	<i>ilha</i>	+	<b>-ku</b>	<i>ilhaku</i>	‘I/me’
b. 2SG:	<i>ilha</i>	+	<b>-u</b>	<i>ilhau</i>	‘you’
c. 3SG:	<i>ilha</i>	+	<b>-isa</b>	<i>ilhaisa</i>	‘she/he/her/him’
d. 3SG:	<b>isa</b>	+	= <i>na</i>	<i>isana</i>	‘she/he/her/him’
e. 3SG:	<b>kana’a</b>	+	= <i>na</i>	<i>kana’ana</i>	‘she/he/her/him’
f. 1PL.INCL:	<i>ilha</i>	+	<b>-ta</b>	<i>ilhata</i>	‘we/us’
g. 1PL.EXCL:	<i>ilha</i>	+	<b>-lhamu</b>	<i>ilhalhamu</i>	‘we/us’
h. 2PL:	<i>ilha</i>	+	<b>-mu</b>	<i>ilhamu</i>	‘you’
i. 3PL:	<i>ilha</i>	+	<b>-isa</b>	<i>ilhaisa</i>	‘they/them’
j. 3PL:	<b>isa</b>	+	= <i>na</i>	<i>isana</i>	‘they/them’
k. 3PL:	<b>kana’a</b>	+	= <i>na</i>	<i>kana’ana</i>	‘they/them’
l. 3PL:	<i>ilha</i>	+	<b>-lhisa</b>	<i>ilhalhisa</i>	‘they/them’
m. 3PL:	<i>lha-</i>	+	<b>kana’a</b>	+ = <i>na</i>	<i>lhakana’ana</i> ‘they/them’

Independent pronouns in Lha’alua have a number of functions. Firstly, they can be used as a topic within a topicalised constituent. As demonstrated in (7.111a) and (7.111b), the independent pronouns *kana’a=na* ‘3.INDEP=DEF’ and *ilhaku* ‘1SG.INDEP’ both function as topics.

(7.111) **Independent pronoun as a topic within a topicalised constituent**

a. *kana’a=na ia, ama-ku.*

3.INDEP=DEF TOP father-1SG.GEN

‘He is my father (IrGEcA61(H)652(m)-12.4659(ya)-0.( )’ 18.24 T64fataa.7GE74(4.74)36 9



(7.115) **Independent pronoun as the Actor argument in A function of a bivalent transitive clause, marked by the patient voice marker (-a/-ø)**

a. *lhamar-a=cu*

[*a ihata*]<sub>A</sub>

set.fire.to.mountain-PV=COS.ASP

COR@2.80439(0.295585(u)5.67474(n)-4.33117( )-0.146571

63

a itraoE]

a uira

b.

(7.119) **Independent pronoun as the Actor argument in S function of the bivalent intransitive clause, marked by the Actor voice marker**

(*um*-/⟨*um*⟩/*u*-/*m*-/∅-)

*k*⟨*um*⟩*a*-*kii*-*kita*      [*a*    *lhakana'ana*]<sub>S</sub>    [*'alhingu*]<sub>E</sub>.

RED<AV>-RED-look/see    CORE    3PL.INDEP      shadow/TV

'They are watching TV.'

Although there are in total ten functions of the third singular and plural independent pronouns, not every third singular and plural independent pronouns have these functions. For example, *isana* '3.INDEP' constitutes an exception and has just five functions (four functions from the above-mentioned eight functions and one

(7.122) *isana* ‘3.INDEP’ as the patient argument in E function of the bivalent intransitive clause, marked by the Actor voice marker

(*um-/<um>/u-/m-/Ø-*)

a. *m-u-sala=ami*

*a*

*cucu-isa=na*

AV-motion.on.foot-road=EVI

CORE

person-3.GEN=DEF

*u-kiri-kirimi*

[*isana*]<sub>E</sub>.

AV-RED-search/hunt 3.INDEP



**Table 7.4: Genitive pronouns and their related verb agreement forms**

	bound	
	affixes	affixes
	<b>agreement forms</b>	<b>genitive pronouns</b>
1SG	-	<i>-ku</i>
2SG	-	<i>-u</i>
3SG	<i>-isa</i> (3PL) <sup>51</sup> , <i>saa-</i> (3PL)	<i>-isa</i> (3PL)

1PL.

(7.125) *saa-* agrees with the Actor argument in A function of the bivalent transitive clause (marked by the patient voice marker (-*a*/- $\emptyset$ )) in person and number

*saa* <sub>*i*</sub>-*ia-pual-a*    ['*aavi* <sub>*i*</sub>]<sub>A</sub>            [*a*    *likilhi*]<sub>O</sub>

3.AGR-thrust/push-BOUND.ROOT-PV    male.name    CORE    vehicle

*kiira.*

yesterday

'*aavi* pushed the vehicle yesterday.'

(7.126) *-isa* agrees with an overt possessor in possessive construction in person and number

*tam*    *m-a-tumulhu*    *a*                '*urai-isa* <sub>*i*</sub>    *ka*    *papa'a* <sub>*i*</sub>=*na*.

very    AV-STAT-a.lot    CORE    fat-3.AGR    GEN    meat=DEF

'The fat of the meat is a lot.'

Secondly, agreement forms are selective in terms of their host (which must be the bivalent transitive verb (marked by the patient voice marker (-*a*/- $\emptyset$ ))) or a

(7.129) *isa-* is selective with the possessor in possessive construction in person and number

*i<a>ma-lhamu*                                *salhumu-isa* <sub>i</sub>    *cucu'u* <sub>i</sub> =*na*.  
drink(PV)<IRR>-1PL.EXCL.GEN    water-3.AGR    person=DEF  
'We will drink the person's water.'

Thirdly, while the agreement form *-isa* '3.AGR' like clitic pronouns occurs after the verbal root, *saa-* '3.AGR' has the p



## **CHAPTER 8**

### **CLAUSE TYPES**

This chapter examines clause types. Lha'alua has independent clauses: verbal clauses (§8.1.1), nominal clauses (§8.1.2), existential, possessive and locative clauses (§8.1.3), and dependent clauses: relative clauses (§8.2.1) and adverbial clauses (§8.2.2). In addition, Lha'alua exhibits 8 compleme

(8.3) *maaci araa-seesema ia, aniciki kipulhu.*  
if INCH-dark TOP just come.out  
'If (it) becomes dark, (it) just came out.'

### 8.1.1.2 Intransitive clauses

The verb in an intransitive clause carries an intransitivizing prefix, infix or zero-marking (i.e. *um-/u-/m-/<um>/ø-*). This type of intransitivizing affixes is also analysed as Actor voice markers throughout the whole

TO - B - 4 - B - 11 - 10

(8.6) **A dynamic predicate**

*m-alusapi=cu* [a 'a'ai]<sub>s</sub>.

INTR/AV-sleep=COS.ASP CORE baby

'The baby has slept.'

(8.7) **A dynamic predicate**

*lhi-tu-puru=cu* [ka lhaamaama]<sub>s</sub>.

PERF.ASP-sit.down-BOUND.ROOT(INTR/AV)=COS.ASP CORE old.person

'The old person has sat down.'

**8.1.1.2.2 Extended intransitive clauses**

The verb of an extended intransitive clause is





When the noun phrase (Actor) in A function is a noun phrase whose head is a common noun, the third person agreement marker *saa-* or *-isa* can attach to the

applicative suffix is analysed as a locative voice marker throughout the whole grammar. However, for ease of reference, it is glossed as LV throughout the grammar. Only in §8.1, it is glossed as APPL/LV. An applicative clause consists of three arguments: a noun phrase (Actor) in A function, a noun phrase (patient) in E function and a noun phrase (location) in O function. The noun phrase (patient) in E function is demoted from core status to oblique status. The noun phrase (location) in O function is promoted from oblique status to core status. It is not compulsory for the noun phrase (patient) in E function to be expressed overtly if it can be inferred or retrieved from the context. In my corpus, applicative clauses are by far the least frequently occurring clauses. Examples of applicative clauses are provided below.

(8.18) a. *racu'u salia ia, italuailipi-a[-lhisa]*<sub>A</sub> *[parana]*<sub>O</sub>.  
 bamboo house



(8.22) **Existential clauses**

a.

(8.23) **Locative clauses**

a. *m-a-arū=i* 'ukui *m-aa-vuvulungaa?*

INTR/AV-STAT-exist=Q goat INTR/AV-BE:LOC/TEMP-mountain

‘Are there any goats in mountains?’ (lit. Goat exists in mountain?)

b. *m-a-arū=mana=i* *cuvu'u*

INTR/AV-STAT-exist=IMPERF.ASP=Q bamboo.shoots

*m-aa-kesenge?*

INTR/AV-BE:LOC/TEMP-pan

‘Are there still bamboo shoots in the pan?’

(lit. Bamboo shoots still exist in the pan?)

c. *m-a-arū* *a* *ucani* *al.295585(l.295585(l.-25a)-0.295585(m0 0 1))JTJ /R10 1*



- d. *m-a-aru*            *a*    *ucani*    *likilhi-ku*            *um-aru-a-sapalhe*.  
 INTR/AV-STAT-exist    CORE    one        vehicle-1SG.GEN    INTR/AV-use-A-foot  
 ‘I have one bicycle.’ (lit. My one foot-use vehicle exists.)
- e. *m-a-aru*            *a*    *ucani*    *'usae-isa*            *ama'a=na*.  
 INTR/AV-STAT-exist    CORE    one        grey.hair-3.AGR    father=DEF  
 ‘Father has one grey hair.’ (lit. Father’s one grey hair exists.)
- f. *m-a-aru*            *a*    *tasau-ku*        *ca-cilhi*.  
 INTR/AV-STAT-exist    CORE    dog-1SG.GEN    RED-one  
 ‘I have one dog.’ (lit. My one dog exists.)
- g. *m-a-aru*            *a*    *maalhe*            *pingi-ramucu-ta*.  
 INTR/AV-STAT-exist    CORE    nonhuman.ten    finger-hand-1PL.INCL.GEN  
 ‘We have ten fingers.’ (lit. Our ten hand fingers exist.)

The ‘be’ possessive construction is expressed as a verbless clause (i.e. nominal clause, which is a type of identity clause) in Lha’alua. Identity clauses are used as possessive clauses, as illustrated in (8.27). This type of predicative possessive constructions is called ‘**the Equation Schema** (i.e. Y is X’s (property) > Y belongs to X)’ in Heine (1997:65).

(8.27) ‘be’ possessive clauses

- a. *tukucu-ku*            *a*    *cucu'u*    *a*    *kani'i*.  
 friend-1SG.GEN    CORE    person    LNK    this  
 ‘This person is my friend.’
- b. *'ikare-ku*                                    *ka*    *kani'i*.  
 bamboo.partridge-1SG.GEN    CORE    this  
 ‘This is my bamboo partridge.’

8.1.3.3 Quantifiers and numerals as existential predicates

Quantifiers such as *m-a-tumulhu* ‘a lot’ and *tumalhae* ‘a lot’ can function as existential predicates.<sup>53</sup> The difference between *m-a-tumulhu* ‘a lot’ and *tumalhae* ‘a lot’ lies in the **animacy** of the referent. With respect to the distinction, lower animates like mosquitoes and higher animates like deer both count as animates. Examples in (8.28) and (8.29) provide an illustration of the predication of inanimate and animate referent existence, respectively.

<sup>53</sup> Quantifiers (i.e. quantifying expressions) are analysed as stative verbs in chapter 3, in that they possess morphosyntactic properties of stative verbs.

(8.28) **Quantifiers (referring to inanimate referents) as existential predicates**

a. *tam m-a-tumulhu a luuvi*

very INTR/AV-STAT-a.lot(inanimate)



devices have been attested in Aikhenvald (2000). Examples in (8.30) and (8.31)

#### 8.1.3.4 *pi-* 'have' and *u-* 'have'

The choice of using either *pi-* ‘have’ or *u-* ‘have’ is lexically determined.

## **8.2 Types of dependent clauses**

b. *uka'a=cu naani ka turukuuka [lhi-kita-isa*  
 NEG=COS.ASP here CORE chicken PERF.ASP-look/see(PV)-3.AGR  
*ka ma-m-a-ini]*<sub>RC</sub>.  
 CORE RED-AV-STAT-small  
 'The chicken that was seen by children is not here.'

The examples shown above are post-nominal external RCs. In my corpus, by far the most frequently occurring RC is the post-nominal external one. Post-nominal external RCs predominantly outnumber pre-nominal external RCs. Although both types of RCs are acceptable and grammatical, Lha'alua language speakers typically favor post-nominal external RCs more than pre-nominal external RCs.

(8.35) a. **Post-nominal external RC**

*lhi-m-ita-livingi=cu ka alha'a*  
 PERF.ASP-AV-hide-hide AV

(8.37) a. **Post-nominal external RC**

*uka'a=cu a valhituku [lhi-aala-isa*  
NEG=COS.ASP CORE money PERF.ASP-take(PV)-3.AGR

*lhaa'u]*<sub>RC</sub>.

female.name

'The money that Lhaa'u took has been gone.'

b. **Pre-nominal external RC**

*uka'a=cu ka [lhi-aala-isa ka lhavingai]*<sub>RC</sub>  
NEG=COS.ASP LNK PERF.ASP-take(PV)-3.AGR CORE female.

the nominalised verb other than the CA in the RC is manifested as a possessor, i.e. as a possessor (i.e. genitive) pronoun suffixed to the main predicate in the RC.

(8.39)

(8.41) a. *t<um>a-taa-tangi a 'a'ai* [*ka m-a-alha*]<sub>RC</sub>.  
RED<AV>-RED-cry CORE baby LNK AV-STAT-hungry  
'The baby who is hungry is crying.'

b. *m-ia-taa-tuu-tumu=aku*  
AV-thrust/push-RED-

*alha'a=na*  
ahh a(OO738.8 Tm [5(T)79.0373(A)101.379(T)611]TJ)

clause or followed by the main clause.

- (8.42) a. [*taia*=*'ai*                      *utulu* *tingatinga*],  
approximate=MOD    three    Taiwanese.kilogram  
[*maaci*    *m-a-liseelhe*=*'ai*].  
if                      AV-STAT-heavy=MOD  
'Perhaps (it) approximates to three Taiwanese kilograms, if perhaps (it is)  
heavy.'
- b. [*maaci*    *m-ikaaci*=*cu*],                      [*tualhi*=*cu*-*ku*=*i*  
if                      AV-stop.raining=COS.ASP    can=COS.ASP-1SG.GEN=Q  
*m-u-sala*                      *salia-isa*                      *ka*    *inguruu*]?  
AV-motion.on.foot-road    house-3.AGR    GEN    female.name  
'If it stops raining, can I go to Inguruu's house?'

Very often, the clause introduced by the subordinatinggf    -3 (.74(t)-2395( )-25093.5( 2-250.295(



- (8.44) [*luuvi=na*] [*maaci kana p-araa-vurae ia*],  
 kiwi.fruit=DEF if PAUSE.FILLER CAUS-INCH-ripe TOP  
 [*m-a-taingale kana i'a'ana sa'au lha maamii*].  
 AV-STAT-exceed PAUSE.FILLER store tasty CONJ.COOR sweet  
 ‘If kiwi fruit becomes ripe, it is more tasty and sweeter than stores’.  
 (lit. As for the kiwi fruit if (it) becomes ripe, (it is) more tasty and sweeter than stores’.)

The subordinating morpheme *maaci* ‘if’, like predicates it t [42922725465ac)-0.1(p42( )250]

9542468.O6

‘when’ also allows multiple topicalised elements within one sentence. As illustrated in the following examples, the S/A argument in the main clause or subordinate clause is topicalised to the sentence-initial position after the ‘when’-clause has been topicalised.

(8.47) a. [*eleke=na*]<sub>S</sub>            [*maaci um-a-ia-iape*            *ia*], [*m-au-auaua*].  
 female.name=DEF    when    AV-IRR-RED-read/study    TOP    AV-RED-yawn  
 ‘When Eleke is studying, she keeps on yawning.’

b. [*viaru=na*]<sub>A</sub>    [*maaci avava alha capa*]    [*riane tam*  
 corn=DEF    when    boil(PV)    DISJ.COOR    broil(PV)    all    very  
*sa’au*].  
 tasty  
 ‘The corn is all very tasty when (it is) boiled or broiled.’  
 (lit. As for the corn when (it is) boiled or broiled, (it is) all very tasty.)

- (8.48) a. [*akuisa lh<um>ivuru civuka-isa*],  
 when stab<AV> belly/stomach-3.GEN  
 [*m-utu-pulhu=ami a ma-m-a-ini-isa*  
 AV-locomotion-come.out=EVI CORE RED-AV-STAT-small-3.GEN  
*riane=ami alemelhe*].  
 all=EVI wild.boar  
 ‘It is said that when (he) stabbed her belly, the children came out, and all  
 (children) were wild boars.’
- b. [*m-u-lhivu’u a lasalhe-isa amalhe=na*], [*akuisa*  
 AV-have-injury CORE knee-3.AGR male.name=DEF when  
*m-ereceka*].  
 AV-hunt  
 ‘Amalhe’s knee got injured when hunting.’
- c. [*m-u-sala m-eleve*], [*akuisa k<um>ita n kani’i*  
 AV-motion.on.foot-road AV-follow when look/see<AV> OBL this  
*lhatareae=na*].  
 pheasant=DEF  
 ‘(They) walked to follow (it), when (they) saw the pheasant.’

(ii) ‘WHEN’-CLAUSE ‘*rumalhae*’. Unlike the ‘when’-clause ‘*akuisa*’, the ‘when’-clause ‘*rumalhae*’ occurs in the clause-final position. The subordinate clause





### 8.2.2.2.3 Temporal boundary

“Relations of temporal boundary involve two events in which the event in the adverbial clause specifies the initiation or termination of the event in the main clause” (Teng 2007:412, 2008). In Lha’alua, both relations of temporal boundary are formed through ‘since/from’-clause and ‘until/to’-clause.

(i) **‘SINCE/FROM’-CLAUSE.** The verb *angalhi* is used to mark temporal boundary with respect to the initiation of the event in the main clause. It can be treated as a verb, in that it possesses several verbal characteristics. For example, it can be inflected with an aspectual marker.

(8.54) **‘sincesi.a850.1783(t).74(u)-0.295585(s)-1.23125585.17792(c88 1m.16508 T.74(l)-8(n)-4(l)-8(n)**

- b. [*aunaana ka kana si-taku-a-mia lha'alua*],  
 like.that LNK PAUSE.FILLER NMZ-work-A-BOUND.ROOT Lha'alua  
 [*angalhi ucani vulalhe*]  
 since/from one moon/month  
*m-i-ungu* *lailha usua*  
 AV-action.concerning.location-BOUND.ROOT ten.something two  
*vulalhe*].  
 moon/month  
 'That is Lha'alua's life from January to December.'  
 (lit. That is Lha'alua's life, since January begins and December arrives.)

In addition to the reference of time, the 'since/from'-clause marked by '*angalhi*' can have locational reference.

- (8.56) [*pari-varate rumalhae*], [*tam m-a-tumulhu a watu'u*]  
 blow-wind when very AV-STAT-a.lot CORE rock  
*angalhi vuvulungaa m-i-lingi-lingikilhi*.  
 since/from mountain AV-Action.concerning.location-RED-roll  
 'When typhoons come, a lot of rocks roll down from mountains.'

(ii) 'UNTIL/TO'-CLAUSE. The verb *miungu* is used to mark temporal boundary with respect to the termination of the event in the main clause. It is a verb, due to the fact that it exhibits verbal properties. As exemplified below, it can attract an aspectual marker. Apart from, the 'until/to'-clause can be topicalised to the sentence-initial position, and immediately followed by the topicalisation marker *ia*.

(8.57) 'until/to'-clause '*miungu*'

- a. [*m-i-ungu=cu* *a alhavungula*]  
 AV-action.concerning.location-BOUND.ROOT=COS.ASP CORE spring  
*ia*], [*ku pipasamia alhu'u=na tarapange*].  
 TOP NEG free/available honeybee=DEF pick.flower.honey  
 'Until spring arrives, honeybees are busy in picking flower honey.'
- b. [*m-iungu=cu* *a alhavungula*]  
 AV-action.concerning.location-BOUND.ROOT=COS.ASP CORE spring  
*ia*], [*tara-te-tealhi=cu a luulucu*].  
 TOP see-RED-ACHI=COS.ASP CORE wasp  
 'Until spring arrives, wasps can be seen.'

### 8.2.2.3 ‘Concerning’ clauses

‘Concerning’-clause is the most frequently occurring type among all types of adverbial clauses in the texts. The ‘concerning’-clause always occurs in the sentence-initial position. It can be topicalised and immediately followed by the topicalisation marker *ia*. The subordinator of the ‘concerning’-clause is a subordinating morpheme *maacu*. Very often, it is immediately followed by the linker *a* or *ka*. Within a ‘concerning’-clause, the linking marker can link a head noun, an NP or an VP, as shown in examples (8.58) and (8.59), respectively.

#### (8.58) ‘concerning’-clause ‘*maacu*’

a. [*maacu a unguhu-isa ia*], [*m-a-tavulhiu meemea*].  
 concerning LNK foot(animal)-3.GEN TOP AV-STAT-red all  
 ‘Concerning its feet, (they are) all red.’

b. [*maacu a viravira-isa vungu-isa ia*],  
 concerning LNK rooster’s.comb-3.AGR head-3.GEN TOP  
 [*m-a-tavulhiu*].  
 AV-STAT-red  
 ‘Concerning the rooster’s comb of its head, (it is) red.’

c. [*maacu ka alhame a kani’i ia*], [*m-aa n*  
 concerning LNK bird LNK this TOP AV-BE:LOC/TEMP OBL  
*kani’i mapulhare*].  
 this a.flat.land.of.low.altitude  
 ‘Concerning this (type of) bird, (it perches) at a flat land of low altitude.’



(8.59) ‘concerning’-clause ‘*maacu*’

a. [*maacu*    *a*    *m-a-ca-calhia=mana*  
concerning    LNK    AV-STAT-RED-be.able.to=IMPERF.ASP  
*m-asi-lha’a-lha’alua*    *ia*], [*umara-maalhi=cu=’ai=maanai*    *ka*  
AV-speak-RED-Lha’alua    TOP    human-ten=COS.ASP=MOD=MOD    LNK  
*m-a-calhia*            *m-asi-lha’a-lha’alua*    *n*    *kani’i*  
AV-STAT-be.able.to    AV-speak-RED-Lha’alua    OBL    this  
*kaa-relhece=na*].

person.of-place.name=DEF

‘Concerning still being able to speak Lha’alua, perhaps ten people of Relhece (Chinese name: Kaochung    ) are able to speak Lha’alua.’

b. [*maacu*    *ka*    *kana*            *taia=’ai=maanai*  
concerning    LNK    PAUSE.FILLER    approximate=MOD=MOD  
*m-a-taingale*    *m-a-liseelhe*    *ia*], [*taia=’ai*  
AV-STAT-exceed    AV-STAT-heavy    TOP    approximate=MOD  
*utulu*    *tingatinga*].

three    Taiwanese.kilogram

‘As far as being heavier is concerned, it weighs about three Taiwanese kilograms.’

(lit. As for concerning perhaps approximating to be heavier, it approximates to three Taiwanese kilograms.)

The subordinating morpheme of the ‘concerning’-clause can attract the clitic referring to reported evidentiality.

(8.60) [*maacu=ami*    *alhaama*    *kiariari*    *a*,    *auniini=’ai=iau*  
concerning=EVI    ancestor    past    TOP    like.this=MOD=MOD  
*lhi-angalhe=’ai*    *vuvulungaa*    *rumalhae*] [*saa-maruka-a*].  
PERF.ASP-from=MOD    mountain    when            3.GEN-stray-PV

‘(The story teller) doesn’t know why/is not sure when it is said that ancestors of the past came back from mountains, they strayed.’

#### 8.2.2.4 Concessive clauses

A concessive clause is used to make a concession, against which the proposition in the main clause is contrasted. In Lha’alua, the concessive clause is marked by the concessive subordinator *maniki* ‘although’. It always occurs in the clause-initial position. The concessive clause can be topicalised to the sentence-initial position and



### 8.2.3.1 Utterance predicates

“Utterance predicates are used in sentences describing a simple transfer of information initiated by an agentive subject. The complement represents the transferred information, and the CTP describes the manner of transfer, the illocutionary force of the original statement, and can also give an evaluation of the speakers (as opposed to the agent subject’s) view of the veracity of the proposition encoded in the complement” (Noonan 1985:110, 2007:121). In Lha’alua, when a verb of this type takes a complement, it is always a clause. Two utterance predicates are used very often in the Lha’alua story-telling texts. The first one is *ki-lhamu* ‘talk/tell/say’. Except for the S/A argument, the other argument slot can be an NP or a complement clause, as shown in examples (8.63) and (8.64), respectively.

(8.63) ‘Talk’

a. *ki-a-lha-lhamu=aku* [ thaa





(8.70) **‘Remember’**

a. *atelhenge=aku=mana* [um-a-u savuane].

remember=1SG.NOM=IMPERF.ASP AV-IRR-eat medicine

‘I still remember to take medicine.’

b. *atelhenge=mana*

Nevertheless, in Latin, it is expressed as a negative statement if interpreted affirmatively, and it is expressed as a positive statement if interpreted negatively. In Lha'alua, this peculiarity does not hold. Namely, a complement that is interpreted affirmatively is put in the positive, and a complement that is interpreted negatively is put in the negative. Except for the experiencer, the other argument slot can be an NP or complement clause, as shown in examples (8.72) and (8.73), respectively.

(8.72) **'Afraid'**

*tam m-urualhe a eleke [na ipici].*  
 very AV-afraid CORE female.name OBL caterpillar  
 'Eleke is very afraid of caterpillars.'

(8.73) **'Afraid'**

*ku urualhe a cucu pari-a-vutukulhu=na [m-a-aru a  
 NEG afraid CORE person catch-IRR-fish=DEF AV-STAT-exist CORE  
 taisa varate].*  
 big wind  
 'Fishermen are not afraid if there is heavy wind.'

### 8.2.3.5 Desiderative predicates

Desiderative predicates, e.g. 'want', 'wish', 'desire', and 'hope', are characterised by having the experiencer which expresses a desire that the complement proposition be realised (Noonan 1985:121; 2007:132). In Lha'alua, the verb of 'want' expresses a desire that some state or event may be realised in the future, and the S/A argument of the verb of 'want' is the same as that





*tetere* ‘must’, *tualhe* ‘can’ and *m-a-calhia* ‘be able’ are demonstrated below.

(8.76) ‘Need’

*m-e-cekelhi=cu* *a* *varate.*

AV-motion.on.foot-come=COS.ASP CORE wind

*tumua* *si-pangelhev-a* *cingare* [*m-a-vaca-vacange* *m-angelheve*].

need INST.NMZ-close-PV window AV-STAT-RED-good AV-close

‘Wind is coming. The door and window need clo

(8.79) ‘Be able (ability, knowing how to)’

- a. *m-a-calhia*=*u=i* [palhu-salhi]?  
AV-STAT-be.able=2SG.NOM=Q sing-song  
‘Are you able to sing a song?’
- b. *m-a-calhia*=*aku* [t<um>apae].  
AV-STAT-be.able=1SG.NOM draw<AV>  
‘I am able to draw.’
- c. *m-a-calhia* kana’a=*na* [m-usu-rauvu].  
AV-STAT-be.able 3.INDEP=DEF AV-make.like-BOUND.ROOT  
‘He is able to dance.’
- d. *m-a-calhia* a ama-ku nua ina-ku  
AV-STAT-be.able CORE father-1SG.GEN CONJ.COOR mother-1SG.GEN  
[m-asi-a-lha’a-lha’alua].  
AV-speak-IRR-RED-Lha’alua  
‘My father and my mother are able to speak Lha’alua.’
- e. *m-a-calhia* ma-m-a-ini lhalhusa kana’a=*na*  
AV-STAT-be.able RED-AV-STAT-small man that=DEF  
[lh<um>avu tikuru].  
wash<AV> clothes  
‘That boy is able to wash clothes.’
- f. *m-a-calhia* ma-m-a-ini lhalhusa kana’a=*na*  
AV-STAT-be.able RED-AV-STAT-small man that=DEF  
[m-aserepe].  
AV-wash.face  
‘That boy is able to wash face.’

### 8.2.3.8 Phasal predicates

According to Noonan (1985:129; 2007:139), “phasal predicates refer to the phase of an act or state: its inception, continuation, or termination.” An example of inception *ruami* ‘start’ in Lha’alua is provided below. Typically, phasal predicates are associated with reduced complements; that is, the S/A argument in the embedded clause has already been specified overtly in the main clause, and thus it is omitted in the complement.

(8.80)



## **CHAPTER 9**

### **SPEECH ACT DISTINCTIONS**

Three basic sentence types are traditionally distinguished for European

### 9.1.1.1 Interrogative particle

In Lha'alua, the polar interrogative is marked by the particle =*i*. It does not occur in constituent interrogatives, and it always cliticises to the predicate. For example, the interrogative particle =*i* is added to the verbless clause complement *sulhate* 'book' in (9.1), the nominal predicate *pakiaturua* 'teacher' in (9.2), the existential predicate *m-a-arua* 'have' in (9.3), the stative predicate *m-a-liseelhe* 'heavy' in (9.4), and the dynamic predicate *lhi-m-alhava* 'have brought' in (9.5).

#### (9.1) Interrogative particle added to a verbless clause complement

*sulhati-u=i?*

book-2SG.GEN=Q

'Is it your book?' (lit. Your book?)

#### (9.2) Interrogative particle added to a nominal predicate

*pakiaturua=i ama-u?*

teacher=Q father-2SG.GEN

'Is your father a teacher?'

#### (9.3) Interrogative particle added to an existential predicate

*m-a-arua=i tasau-u ca-cilhi*

(9.6) **Interrogative particle added to the main verb**

a. *m-a-calhia=u=i*                      *palhu-salhi?*

AV-STAT-be.able=2SG.NOM=Q    sing-song

‘Are you able to sing?’

b. *m-a-rumuku=u=i*                      *t<um>apae?*

AV-STAT-like=2SG.NOM=Q    draw<AV>

‘Do you like drawing?’

c. *karekelhi=u=i*                      *m-asi-a-lha'a-lha'alua?*

often=2SG.NOM=Q    AV-speak-

### 9.1.2 Constituent interrogatives and their interrelations with other grammatical categories

In this section, constituent interrogatives and their interrelations with other grammatical categories are examined. There are eight major types of constituent interrogatives in Lha'alua: 'what', 'who', 'when', 'where', 'why', 'how much/many', 'how', and 'which'.

Table 9.1 provides an overview of the overall characteristics of constituent interrogatives, examined in terms of verbal features (e.g. voice inflection, irrealis marking, aspect marking and bound pronoun attraction). Here, in lieu of verbal features, a summary of each constituent interrogative's word class can be described. 'What' and 'who (only *ngasa* and *cucu'u misaini*)' are analysed as nouns. 'Who (only *nalha*)', 'when', 'where (only *ini*)', 'why', 'how much/many (only *tainiini*)' and 'how' are analysed as verbs. Further examination and description of each type of constituent interrogatives are provided in the following subsections.



**Table 9.1: Characteristics of constituent interrogatives**

SEMANTIC TYPES	VERBAL				WORD CLASS
	VOICE INFLECTION	IRREALIS MARKING	ASPECT MARKING	BOUND PRONOUN ATTRACTION	

### 9.1.2.1 ‘What’

‘What’ in Lha’alua is rendered by *ngalha* and *misaini*. *Ngalha* ‘what’ occurring in the sentence-initial position is followed by a dummy subject *-isa*. It does not have any verbal properties like voice, reality status and aspectual markers.

(9.12) a. *m-i'a'a misaini?*

AV-sell what

'Sell what?'

b. *pu'a misaini?*

buy(AV) what

'Buy what?'

(9.16) *ngalha-isa=u?*  
 who-3.AGR=2SG.NOM  
 ‘Who are you?’

(9.17) *ngalha-isa lhi-makari?*  
 who-3.AGR PERF.ASP-call  
 ‘Who had called?’

*Ngasa* ‘who’, like *ngalha* ‘who’, occurs in the sentence-initial position. However, it cannot attract any bound pronoun and does not display other verbal properties like reality status and aspectual markers. Verbal markers, e.g. causative and irrealis, are attached to the following verb as in (9.18).

(9.18) a. *ngasa a-vura?*  
 who IRR-give  
 ‘Whom will it be given to?’ (lit. Give whom?)  
 b. *ngasa paa-a-kita?*  
 who CAUS-IRR-look  
 ‘Who will be allowed to look at?’ (lit. Let whom look?)

*Ngasa* ‘who’ can form an absolute possessive equivalent to English ‘whose’ by the addition of *pi-* ‘have’ and *isikana* ‘ABSL.POSS’.

(9.19) *ngasa-pi-isikana*  
 who-have-ABSL.POSS  
 ‘Whose?’

*Cucu’u misaini* ‘who (lit. person what)’ does not exhibit verbal properties like reality status and aspectual markers. It always occurs in the sentence-initial position. It can be topicalised as in (9.20).

(9.20) *cucu’u misaini ia, lhalhusa kana’a=na?*  
 person what TOP man that=DEF  
 ‘Who is that man?’ (lit. As for what person, that man?)



In (9.25), *ini* ‘where’ and *niinau* ‘where’ can co-occur within a sentence. The sentence is natural, and the information provided is not superfluous. The co-occurrence of *ini* ‘where’ and *niinau* ‘where’ appears to have emphatic connotation.

(9.25) *ini*        *paa-ninau?*  
where    BE:LOC/TEMP(AV)-where  
‘Where (is it)?’

*Ini* ‘where’ itself exhibits one verbal property; that is, it can attract a bound pronoun as in (9.26). Other verbal properties like aspectual and voice markers are attached to the verb rather than *ini* ‘where’, as in (9.27) and in (9.28).

(9.26) *ini=u*                    *alhu-ka-kua?*  
where=2SG.NOM    get.to-RED-get.to  
‘Where are you going5( )-250.500]TJ /R7 12 Tf 126.759OTJ /R7 12 Tf 12.16558(n)-120.1596(y)’

(9.30)

- (9.33) a. *pa-piaini*                      *a*      *cucu'u*    *salia-u?*  
 RED-how.much/many    CORE    person    house-2SG.GEN  
 'How many people are there in your family?'  
 (lit. How many person your house?)
- b. *pa-piaini*                      *a*      *tukucu-u?*  
 RED-how.much/many    CORE    friend-2SG.GEN  
 'How many friends do you have?' (lit. How many your friends?)
- (9.34) a. *upiaini*                      *pakiaturua?*  
 how.much/many    o'clock  
 'What time is it? (hour only)' (lit. How many clocks?)
- b. *upiaini*                      *aari?*  
 how.much/many    day  
 'How many days?'
- c. *upiaini*                      *a*      *ta'elha-isa*    *ma-m-a-ini*                      *a*





*Auniini* ‘how’ can attract a bound pronoun as in (9.40). The attraction of other verbal properties, e.g. reality status, aspectual and voice markers, cannot be attested.

(9.40) *auniini=u?*

how=2SG.NOM

‘How about you?’

*Tainiini* ‘how’ can be used to ask degree and quality. Unlike *auniini* ‘how’, it cannot attract a bound pronoun. The bound pronoun is attached to the predicate, immediately followed by *tainiini* ‘how’, as in (9.41a). *Tainiini* ‘how’ exhibits one verbal property. That is, it can take an irrealis marker, as in (9.41b).

(9.41) a.

*(9.41) a. -26205385(p)-0.22952984671)-574960026(l)(n)(7)-8.0163578(9)-458624974(f)-262071-(R289524)(d)80*



B: *lhaa, kana'a=na ia, pakiaturua.*

yes 3.INDEP=DEF TOP teacher

'Yes, she is a teacher.' (lit. Yes, as for her, (she is) a teacher.)

(9.48) **Positive answer *lhaa* to a stative predicate**

A: *m-a-calhia=mu=i m-u-a-cekelhe*

AV-ST25856.2105(2)PLJNOM-1Q Tf a99046571 (902264238+13(2)8056145)0296295585(n(180250)

339(8 6 69Tf 595(=)4.6047( )-250.294( k0.2955659(-)2.8056295585(n( )-i/R7 9.48 ' /R7 0 0i2.80439(m))-9990075(=)4.6047( )-250.294( v0.29

(9.51) **Positive answer to the stative predicate *m-a-calhia***

A: *m-a-calhia=i*      *ma-m-a-ini*      *a*      *kana'a=na*

AV-STAT-be.able=Q    RED-AV-STAT-small    LNK    that=DEF

*m-usu-rauvu?*

AV-make.like-BOUND.ROOT

‘Is that child able to dance?’

B: *m-a-calhia,*      *m-a-calhia*      *kana'a=na*

AV-STAT-be.able    AV-STAT-be.able    3.INDEP=DEF

*m-usu-rauvu.*

AV-make.like-BOUND.ROOT

‘Yes, he is able to dance.’ (lit. Able, he is able to dance.)

In Lha’alua, there is one negative answer: *kuu* ‘no’. Like positive answers

B: *kuu, m-uru-mita=cu*    *a*         *talhiaria.*  
           NEG AV-come.out-BOUND.ROOT=COS.ASP CORE sun  
           ‘No, the sun has risen.’ (lit. No, the sun has come out.)

## 9.2 Imperative sentences

“Imperative mood is the most common way of expressing commands in languages of the world—covering directive speech acts with their multiple meanings” (Aikhenvald 2010a:2). Two types of imperative sentences are discussed in this section: positive imperatives (§9.2.1) and negative (prohibitive) imperatives (§9.2.2). All examples presented in these two subsections consist of the second person imperatives. Another type of command, hortative, is mentioned in §9.2.3.

### 9.2.1 Positive imperatives

Positive imperatives vary in terms of politeness and grammatical categories, such as voice, evidentiality, modality, aspectual and reality status markers. These varieties are examined in the following subsections.

#### 9.2.1.1 Politeness varieties

“The degree of an imperative’s strength can vary, from a strict order implying unquestionable authority and compliance to a soft and mild command bordering on suggestion” (Aikhenvald 2010a:203). A similar phenomenon can be attested in Lha’alua. In Lha’alua, the intensity in imperatives consists of a distinction between polite and strong requests.

Uttering a mild command (i.e. polite request) can be achieved by an addition of the suffix =*kia* to the verb, as shown in (9.55). When expressing a mild command, the irrealis marker formed by *-a* or *Ca-/Caa-* reduplication must occur on the verb. In addition to the addition of an irrealis marker, the main verb must be inflected with Actor voice (*um-/<um>/u-/m-/ø-*).

(9.55) **Polite request =kia**

- a. *m-ia-ta-tumu=kia* *takuliace*  
AV-thrust/push-RED:IRR-BOUND.ROOT=POLITE.REQUEST bad  
*cucu'u=na!*  
person=DEF  
'Please hit the bad person with fists!'
- b. *m-aa-maa-m-a-ini=kia* *m-ima mapaci!*  
AV-drink-RED:IRR-AV-STAT-small=POLITE.REQUEST AV-drink wine  
'Please drink wine a little bit!'
- c. *m-aa-a-elese=kia* *m-ima mapaci!*  
AV-drink-IRR-together=POLITE.REQUEST AV-drink wine  
'Please drink wine together!'
- d. *kuri-a-ngalhangalha=kia* *kuri-vuuru alemelhe!*  
shoot-IRR-again=POLITE.REQUEST shoot-bow wild.boar  
'Please shoot a wild boar with a bow again!'
- e. *lu<a>liulhu=kia* *tikuru-u=na!*  
change(AV)<IRR>=POLITE.REQUEST clothes-2SG.GEN=DEF  
'Please change your clothes!'
- f. *l<um>a-lili=kia* *savuane!*  
RED:IRR<AV>-apply=POLITE.REQUEST ointment  
'Please apply ointment!'
- g. *ki-a-mairange=kia!*  
dig-IRR-sweet.potato=POLITE.REQUEST  
'Please dig sweet potatoes!'
- h. *l<um>a-levenge=kia* *valhituku!*  
RED:IRR<AV>-conceal=POLITE.REQUEST money  
'Please conceal money!'

Strengthening a command (i.e. strong request) can be achieved by the use of *cuu*, *=mau* or *cuu=mau*. The command degrees of *cuu*, *=mau* and *cuu=mau* do not exhibit any semantic or pragmatic difference. In principle, *cuu* plus *=mau* should be stronger than just *cuu* or *=mau* in command. It turns out that this surmise is not upheld by Lha'alua speakers. In terms of constituent order, *cuu* and *cuu=mau* always occur in the sentence-initial position, whereas *=mau* always attaches to the main verb. Examples are provided below.

(9.56) Strong request *cuu*

- a. *cuu* *u=mana!*  
 STRONG.REQUEST eat=IMPERF.ASP  
 ‘Keep eating!’ (lit. Still eat!)
- b. *cuu* *m-alusap-a!*  
 STRONG.REQUEST AV-sleep-AV.IMP  
 ‘Sleep!’
- c. *cuu* *pan-u* *a* *alemelhe!*  
 STRONG.REQUEST hunt-PV.IMP CORE wild.boar  
 ‘Hunt the wild boar!’
- d. *cuu* *ari-pi-pici-u* *a* *kiu’u=na!*  
 STRONG.REQUEST hand/head.motion-RED-split-PV.IMP CORE tree=DEF  
 ‘Chop the tree so as to make it split!’

(9.57) Strong request *cuu=mau*

- a. *cuu=mau* *u-pala-pal-a* *tasau!*  
 STRONG.ua 00.2815585(-)2.80439(p)-0.80439(p)-0.80439(p)-0.80439(p)-0.80439(p)-0.80439(p)-0.80439(p)-0.80439(p)



- c. *capa-u=mau* *papa'a!*  
 broil-PV.IMP=STRONG.REQUEST meat  
 'Broil the meat!'
- d. *m-u-capi-a=mau!*  
 AV-motion.on.foot-BOUND.ROOT-AV.IMP=STRONG.REQUEST  
*m-u-a-elese=ita=mana* *kana*  
 AV-motion.on.foot-IRR-together=1PL.INCL.NOM=IMPERF.ASP PAUSE.FILLER  
*m-i<a>tungusu.*  
 AV-Ritual.of.Sacred.Shells<IRR>  
 'Come down! We will still go to the Ritual of Sacred Shells together  
 (Chinese name:            ).'

Strong requests are typically used in an emergent situation or in a circumstance when a person who is senior talks to a person who is junior. Polite requests can be employed in any circumstance, and treated as a symbol of courtesy.

### 9.2.1.2 Voice varieties and imperative suffixes

Table 9.2 presents an overview of voice varieties and imperative suffixes in positive imperatives examined in this section.

**Table 9.2: Voice varieties and imperative suffixes in positive imperatives**

VOICE IN DECLARATIVES	POSITIVE IMPERATIVES	VOICE IN IMPERATIVES	IMPERATIVE SUFFIX
-----------------------	----------------------	----------------------	-------------------

AV: *um-/<um>/u-/m-/ø-    ø*

b. *m-ari-a-['evecenge]<sub>E</sub>=kia!*

AV-hand/head.motion-IRR-millet=POLITE.REQUEST

'Please harvest millet!'

When the **strong request** *cuu, =mau* or *cuu=mau* is used, an imperative suffix is added to the main verb. The noun phrase in S or A function is omitted. The intensity

,n7 t t

e.	<i>m-ia-tumu-a=mau</i>	‘hit by fists’
f.	<i>l&lt;um&gt;ili-a=mau</i>	‘apply (ointment)’
g.	<i>l&lt;em&gt;eveng-a=mau</i>	‘conceal’
h.	<i>t&lt;um&gt;aev-a=mau</i>	‘cover’
i.	<i>t&lt;um&gt;ulhuc-a=mau</i>	‘put Derris trifoliata (a plant name) and let it flow’
j.	<i>um-ailh-a=mau</i>	‘deposit/preserve’
k.	<i>um-urur-a=mau</i>	‘thread’
l.	<i>u-lhamar-a=mau</i>	‘set fire to mountains’
m.	<i>u-kii-kirim-a=mau</i>	‘search’
n.	<i>ru-pici-a=mau</i>	‘tear apart’
o.	<i>kira-pulit-a=mau</i>	‘step on so as to separate’

(9.62) **The imperative suffix -a in Actor voice constructions with strong request**

*cuu=mau*

a.	<i>cuu=mau m-aruaev-a</i>	‘uncover’
b.	<i>cuu=mau m-ia-pual-a</i>	‘push’
c.	<i>cuu=mau m-ai-kepel-a</i>	‘grasp’
d.	<i>cuu=mau m-ati-sangal-a</i>	‘catch’
e.	<i>cuu=mau m-ia-tumu-a</i>	‘hit by fists’
f.	<i>cuu=mau l&lt;um&gt;ili-a</i>	‘apply (ointment)’
g.	<i>cuu=mau l&lt;em&gt;eveng-a</i>	‘conceal’
h.	<i>cuu=mau t&lt;um&gt;aev-a</i>	‘cover’
i.	<i>cuu=mau t&lt;um&gt;ulhuc-a</i>	‘put Derris trifoliata (a plant name) and let it flow’
j.	<i>cuu=mau um-ailh-a</i>	‘deposit/preserve’
k.	<i>cuu=mau um-urur-a</i>	‘thread’
l.	<i>cuu=mau u-lhamar-a</i>	‘set fire to mountains’
m.	<i>cuu=mau u-kii-kirim-a</i>	‘search’
n.	<i>cuu=mau ru-pici-a</i>	‘tear apart’
o.	<i>cuu=mau kira-pulit-a</i>	‘step on so as to separate’

(9.63) **Examples of strong request and the imperative suffix *-a* in Actor voice constructions**

a. *cuu=mau*

*kira-pulit-a*

STRONG.REQUEST=STRONG.REQUEST    step.on-separate-AV.IMP

[*a    racu'u=na*]<sub>E</sub>!

CORE bamboo=

(9.64)

(9.66) **The imperative suffix *-u* in patient voice constructions with strong request *cuu=mau***

- |    |  |   |
|----|--|---|
| a. | <i>cuu=mau aru-taiv-u</i>                | ‘uncover’   |
| b. | <i>cuu=mau ia-pual-u</i>                 | ‘push’  |
| c. | <i>cuu=mau p-ai-kepil-u/p-ai-kipil-u</i> | ‘grasp’   |
| d. | <i>cuu=mau p-ati-sangal-u</i>            | ‘catch’   |
| e. | <i>cuu=mau ia-tum-u</i>                  | ‘hit by fists’  |
| f. | <i>cuu=mau lili-u</i>                    | ‘apply (ointment)’  |
| g. | <i>cuu=mau leving-u/living-u</i>         | ‘conceal’   |
| h. | <i>cuu=mau taiv-u</i>                    | ‘cover’   |
| i. | <i>cuu=mau tulhuc-u</i>                  | ‘put Derris trifoliata (a plant name)<br>and let it flow’ |
| j. | <i>cuu=mau ailh-u</i>                    | ‘deposit/preserve’  |
| k. | <i>cuu=mau urur-u</i>                    | ‘thread’  |
| l. | <i>cuu=mau lhamar-u</i>                  | ‘set fire to mountains’                                   |
| m. | <i>cuu=mau kii-kirim-u</i>               | ‘search’  |
| n. | <i>cuu=mau ru-pici-u</i>                 | ‘tear apart’  |
| o. | <i>cuu=mau kira-pulit-u</i>              | ‘step on so as to separate’                               |

(9.67) **Examples of strong request and the imperative suffix *-u* in patient voice constructions**

- |    |  |  |
|----|--|--|
| a. | <i>cuu=mau</i>                             | <i>kira-pulit-u</i>                    |
|    | STRONG.REQUEST=STRONG.REQUEST              | step.on-separate-PV.IMP                |
|    | [ <i>a racu'u=na</i> ] <sub>o</sub> !      |  |
|    | CORE bamboo=DEF                            |  |
|    | ‘Step on the bamboo so as to separate it!’ |  |
| b. | <i>cuu=mau</i>                             | <i>lili-u</i> [savuane] <sub>o</sub> ! |
|    | STRONG.REQUEST=STRONG.REQUEST              | apply-PV.IMP ointment                  |
|    | ‘Apply ointment!’                          |  |
| c. | <i>tara-ena-u=mau</i>                      | [ <i>tilha'alhi-u</i> ] <sub>o</sub> ! |
|    | rinse-BOUND.ROOT-PV.IMP=STRONG.REQUEST     | body-2SG.GEN                           |
|    | ‘Rinse your body!’                         |  |
| d. | <i>living-u=mau</i>                        | [ <i>valhituku</i> ] <sub>o</sub> !    |
|    | conceal-PV.IMP=STRONG.REQUEST              | money                                  |
|    | ‘Conceal money!’                           |  |

In **locative voice constructions**, the imperative marker *-i/-ani* is suffixed to the main verb. The locative voice marker used in declarative sentences is deleted. In my



(9.72) **Optional irrealis marking in imperative sentences with the strong request**

*cuu, =mau or cuu=mau*

a. *luluilh-a=mau*

[*tikuru-u=na*]<sub>E</sub>!

change(AV)-AVEJMP-STR(E)CR 7 8 749.48 Tf 0.99940Tm [(S)-13.E24 68275(QUE24 68275(5 0 0 1 13.T)6128583(



- b. *kuu=kia*                      *u-sa-sipare*  
NEG.IMP=POLITE.REQUEST   motion.on.foot-RED:IRR-BOUND.ROOT  
*lhuulhungu!*  
stream  
'Don't wade a stream!'
- c. *kuu=kia*                      *a-kirimi*                      *alemelhe!*

d. *kuu=kia*

NEG.IMP=POLITE.REQUEST

*a-tulhu-tulhucu*

*vutukulhu!*

IRR-RED-put.Derris.trifoliolate.so.as.to.let.it.flow.and.poison fish

‘Don’t put Derris trifoliolate (plant name) so as to let it flow and poison fish continuously!’

In negative imperatives, the noun phrase in S or A function is very often omitted. Not uncommonly, the noun phrase of second person in S or A function can be expressed overtly. When explicitly specified, the noun phrase should be an independent pronoun rather than a bound pronoun. Bound pronouns are not used because of structural incompatibility.

(9.75) *kuu=kia*

*ilhamu*

NEG.IMP=POLITE.REQUEST 2PL.INDEP

*i-a-cikiri*

*salia!*

action.concerning.location-IRR-BOUND.ROOT house

‘You don’t leave a house!’

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### 9.3 Declarative sentences

In Lha'alua, a declarative sentence itself cannot be distinguished inflectionally. In other words, no special marking is particularly used for a declarative sentence. However, there is a reliable indicator (prosodic characterisation) of declarative sentences, i.e. a leveling intonation pattern or a falling intonation contour. As show197c4(m)-2.45995(a)

is V(E) (if intransitive) or VO (if transitive).

(9.80) **Imperative sentences: V(E)/VO**

- a. *m-u-likap-a=mau* *ki-[mairange]<sub>E</sub>!*  
AV-motion.on.foot-BOUND.ROOT-AV.IMP=STRONG.REQUEST dig-sweet.potato  
'Dig sweet potatoes stealthily!'
- b. *tara-ena-u=mau* *[sapalhe-u]<sub>O</sub>!*  
rinse-BOUND.ROOT-PV.IMP=STRONG.REQUEST foot-2SG.GEN  
'Rinse your feet!'

Thirdly, compared with interrogative and imperative sentences, declarative sentences in Lha'alua are less frequent.





## **CHAPTER 10**

### **NUMERALS AND THE COUNTING SYSTEM**

This chapter deals with numerals and the counting system, including word formation of numerals and the counting system (§10.1), and syntactic functions of numerals (§10.2). This is a system which preserves numerous features reconstructed for the Proto-language (see, for example, Blust 2009). Speakers of Lha'alua are 'number-proud'; that is, they value competence in t

**Table 10.1: Simple and reduplicated forms of the PAN numerals**

Set A	Set B	
* <b>pija</b>	* <b>pa-pija</b>	‘how much, how many?’





triplication applies when the numeral root is vowel-initial. Compared with the PAN form \*wa-walu 'eight', Lha'alua has already lost th

- d. *m-a-arū a utulu tepelhana sulhate-isa*  
 AV-STAT-exist CORE three CL:booklike book/paper/word-3.AGR  
*kuate.*  
 female.name  
 ‘Kuate has three books.’ (lit. Three Kuate’s books exist.)

Nowadays, Lha’alua speakers tend to use all **human numerals** (including human numerals higher than ‘ten’) to refer to **referents of higher animacy or animals in domestication**.

(10.4) **Human numerals referring to referents of higher animacy**

- a. *m-a-arū a sa-sua tasau-ku.*  
 AV-STAT-exist CORE RED-two dog-1SG.GEN  
 ‘I have two dogs’ (lit. Two my dogs exist.)
- b. *m-a-arū a a-upate ngiau-ku.*  
 AV-STAT-exist CORE RED-four cat-1SG.GEN  
 ‘I have four cats’ (lit. Four my cats exist.)

(10.5) ~~Human numerals referring to referents of higher animacy or animals in domestication~~

The use of human numerals referring to referents of lower animacy is NOT acceptable for the Lha'alua speakers.

(10.7) **Human numerals referring to referents of lower animacy**

- a. \**m-a-arū*      *a*      ***ca-cilhi***      *lhatikasi-ku*.  
AV-STAT-exist    CORE    RED-one    mosquito-1SG.GEN  
'I have one mosquito.' (lit. One my mosquito exists.)
- b. \**m-a-arū*      *a*      ***sa-sua***      *tamuciaki-ku*.  
AV-STAT-exist    CORE    RED-two    frog-1SG.GEN  
'I have two frogs.' (lit. Two my frogs exist.)

**10.1.2 Numerals higher than ten**

Knowledge of higher numerals is regarded as a token of expertise in the

**Table 10.3: Numerals from eleven to nineteen**

Serial counting / Nonhuman	Human	Translation and gloss
<i>lailha-ucani</i>	<i>'umara-rai-ca-cilhi</i>	'eleven' (TENS + one)
<i>lailha-usua</i>	<i>'umara-rai-sa-sua</i>	'twelve' (TENS + two)
<i>lailha-utulu</i>	<i>'umara-rai-ta-tulu</i>	'thirteen' (TENS + three)
<i>lailha-upate</i>	<i>'umara-rai-a-upate</i>	'fourteen' (TENS + four)
<i>lailha-ulima</i>	<i>'umara-rai-la-lima</i>	'fifteen' (TENS + five)
<i>lailha-eneme</i>	<i>'umara-rai-a-eneme</i>	'sixteen' (TENS + six)
<i>lailha-upitu</i>	<i>'umara-rai-pa-pitu</i>	'seventeen' (TENS + seven)
<i>lailha-ualu</i>	<i>'umara-rai-la-la-alu</i>	'eighteen' (TENS + eight)
<i>lailha-usia</i>	<i>'umara-rai-sa-sia</i>	'nineteen' (TENS + nine)

**10.1.2.2 Numerals from ten to n**

**Table 10.4: Numerals from ten to ninety**

From ten to ninety (10-90)			
Serial counting	Nonhuman	Human	Translation and gloss
<i>ku-ma-a-lhe</i>	<i>ma-a-lhe</i>	<i>'umara-ma-a-lhe</i>	'ten' (TENS X one)
	<i>ma-pua-lhe</i>	<i>mata-ma-pua-lhe</i>	'twenty' (TENS X two)
	<i>ma-tulu-lhu</i>	<i>mata-ma-tulu-lhu</i>	'thirty' (TENS X three)
	<i>ma-upate-lhe</i>	<i>mata-ma-upate-lhe</i>	'forty' (TENS X four)
	<i>ma-lima-lhe</i>	<i>mata-ma-lima-lhe</i>	'fifty' (TENS X five)
	<i>ma-eneme-lhe</i>	<i>mata-ma-eneme-lhe</i>	'sixty' (TENS X six)
	<i>ma-pitu-lhe</i>	<i>mata-ma-pitu-lhe</i>	'seventy' (TENS X seven)
	<i>ma-ale-lhe</i>	<i>mata-ma-ale-lhe</i>	'eighty' (TENS X eight)
	<i>ma-sia-lhe</i>	<i>mata-ma-sia-lhe</i>	'ninety' (TENS X nine)

**10.1.2.3 Numerals from one hundred to nine hundred**

\*RaCus is the proto-form for '100' in PAN (Blust 2009). In Lha'alu59(h)-0.295587Tj T\*[( )-

**Table 10.5: Numerals from one hundred to nine hundred**





**Table 10.6: Numerals from one thousand to nine thousand**

<b>From one thousand to nine thousand (1,000-9,000)</b>		
Serial counting / Nonhuman	Human	Translation and gloss
<i>ucani</i> <i>lhimi'a'ili</i>	<i>mata-ucani</i>	

The nonhuman numerals are used in counting numbers from 10,000 to 90,000. Human numerals from 10,000 to 90,000 are indicated by the prefix *mata-* (referring to human participants) added to the nonhuman numerals from 10,000 to 90,000 as a base in derivation. For example, *mata-ma-a-lhe lhimi'a'ili* '830.295187(-)2.89585-10.1535(1)-0.295585(0)-0

### 10.1.3.1 Ordinal numerals

In PAN, ordinal numerals were derived by prefixation with \*Sika- (Blust 2009:281). In Lha'alua, ordinal numerals are formed by addition of the prefix *siia-*. The form is a reflex of PAN \*Sika-. Different from the Proto-form, the prefix *siia-* has lost *k*, and *i* is lengthened as *ii*.

- (10.9) a. *siia-u-cani* 'first'  
b. *siia-u-sua* 'second'  
c. *siia-u-tulu* 'third'  
d. *siia-u-pate* 'fourth'  
e. *siia-u-lima* 'fifth'  
f. *siia-e-neme* 'sixth'  
g. *siia-u-pitu* 'seventh'  
h. *siia-u-alu* 'eighth'  
i. *siia-u-sia* 'ninth'

### 10.1.3.2 Distributive numerals

Distributive numerals are formed by reduplication. CV- reduplication is used for numerals referring to human participants as in (10.10a), whereas CVCV- reduplication is adopted for numerals referring to nonhuman referents as in (10.10b). When units of specific time spans, e.g. 'day' and 'year' in (10.10c-d) are expressed, the numeral 'one' is not used. The distributive meaning of these temporal nouns are formed by *full* reduplication, whereby reduplicants come from the temporal nominal root rather than numeral root.

- (10.10) a. **CV- reduplication**  
*a-ca-[ca-cilhi]*  
A-RED:distributive-RED:human-one  
'each one (person)' cf. *ca-cilhi* 'one (person)'

c. **full reduplication**

*cailhi-cailhi*

RED-year

‘every year’ cf. *cailhi* ‘year’

d. **full reduplication**

*aari-aari*

RED-day

‘every day’ cf. *aari* ‘day’

A criterion to distinguish numeral from other word classes is reduplication. While reduplicants of human numerals may come from the stem in acquiring the distributive meaning as in (10.10a), those of other word classes *generally* come from a free or bound root as in (10.11).<sup>55</sup>

(10.11) a. **Verb of motion**

*m-u-sake-sakeralhe*

AV-motion.on.foot-RED-river

‘keep on walking along a river’ (continuous)

b. **Verb of inception**

*araa-vu-vurae*

INCH-RED-ripe

‘becoming ripe/ripening’ (progressive)

c. **Adjectival element**

*m-a-tavu-tavulhiu*

AV-STAT-RED-red

‘pink/light red’ (diminutive/attenuative)

d. **Adverbial expression**

*kira-ta-taisa*

step.on-RED-big

‘step on something very heavily’ (intensification)

e. **Noun**

*ta-ta-tavalhilha*

RED-RED-flower

‘flowers’ (plurality) (via triplication)

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<sup>55</sup> The word *um-au-a-u* (AV-RED-IRR-eat) ‘eating’ is the only exception to this statement, in that the reduplicant *au-* comes from the stem. The reason can be attributed to the fact that the verbal root *u* ‘eat’ only has one syllable, so the root itself cannot be used for (C)V(C)V- reduplication.

### 10.1.3.3 Frequentative numerals

A frequentative numeral is formed by addition of a lexical prefix and a numeral root. Unlike other derived numerals whereby 1 to 10 are formed by addition of the bound root of numerals from 1 to 10 as in (10.12), a frequentative numeral from 1 to 10 is formed by a bound root based on numerals from **10 to 20**, as in (10.13).

(10.12) a. *ki-sua=cu=aku*                      *k<um>ali mairange* .

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dis

dig-two=C 2.i

n>AS.29552-1(P0.28)a(.)-2di n>=77(669162)-nEfi39.9836.295585(m)-2.4599912.8 23



- c. *lhi-um-u=cu=aku* [vaake] *usua*.  
 PERF.ASP-AV-eat=COS.ASP=1SG. NOM tangerine two  
 ‘I have eaten two tangerines.’ (lit. ‘I have eaten tangerine two.’)

When numerals function as predicates, they occur in the clause-initial position as in (10.15a-d). Like dynamic verbs and stative verbs (including adjectival elements and quantifying expressions), numerals can exhibit grammatical characteristics of being a predicate. For example, numerals can be the host of lexical prefixes, and attract bound pronoun clitics like =*aku* and aspectual clitics like =*cu* and *lhi-*.

(10.15) **As predicate:**

- a. *t<um>u-sa-sua=cu* *t<um>angi*.  
 cry<AV>-RED-two=COS.ASP cry<AV>  
 ‘Two people cried.’
- b. *ki-sa-sua* *k<um>ali* *mairange*.  
 dig-RED-two dig<AV> sweet potato  
 ‘Two people dug sweet potatoes.’
- c. *m-ai-sua=cu=aku*  
 AV-action.involving.hands-two=COS.ASP=1SG. NOM  
*m-ai-ruruma* *salia*.  
 AV-action.involving.hands-BOUND.ROOT house  
 ‘I built two houses.’
- d. *lhi-ku-sua=cu=aku* *vaake*.  
 PERF.ASP-eat-two=COS.ASP=1SG. NOM tangerine  
 ‘I have eaten two tangerines.’

There is a difference between human and nonhuman numerals here. For human numerals, *Ca-* reduplication (i.e. indicating human participants) from the numeral bound root is required when a lexical prefix is attached as in (10.15a-b). However, for nonhuman numerals, the initial *u* is deleted when a lexical prefix is attached as in (10.15c-d). In other words, a lexical prefix attaches to a **numeral stem** when referring to a human participant, but attaches to a **numeral root** when referring to a nonhuman referent.

Another characteristic of numerals is that when numerals function as predicates, the **numeral itself** may be inflected with a voice marker (§6.3). Voice marking is a typical characteristic of verbs in Lha’alua as well as in the majority of Formosan languages.

(10.16) a.



## Appendix: Selected Excerpts from Lha'alua Stories

### Extract from text 1: Introducing myself and my children.

Recording location: Selhengane (Chinese name: Jianchashao )

Date: 01 December 2008

Narrator: Langui Tavuiana (Chinese name: )

Person who helped me to transcribe: Eleke Lhauracana (Chinese name: )

(1.1) *ki-a-lha-lhamu=aku*                      *n*      *kana*                      *ngalha-ku.*  
na t      tell/talk-

(1.6) *maacu a kana lhimilavae lhalhusa ia,*  
 concerning LNK PAUSE.FILLER younger.sibling man TOP  
*'angai lha palii.*  
 male.name CONJ.COOR male.name  
 'Concerning younger brothers, they are 'angai and Palii.'

(1.7) *maccu a ma-m-a-ini a alhaina ia, ta-tulu.*  
 Concerning LNK RED-AV-STAT-small GEN woman TOP RED-three  
 'Concerning daughters/girls, (there are) three people.'

(1.8) *ma*

**Extract from text 2: Daily life of the past.**

Recording location: Selhengane (Chinese name: Jianchashao )

Date: 01 December 2008

Narrator: Langui Tavuiana (Chinese name: )

Person who helped me to transcribe: Vanau Tumamalikisase (Chinese name: )

(2.1) *ki-a-lha-lhamu=aku* *kana*  
tell/talk-IRR-RED-tell/talk=1SG.NOM PAUSE.FILLER  
*si-taku-a-mia-mia-lhamu* *kiariari akuisa*  
NMZ-work-A-RED-BOUND.ROOT-1PL.EXCL.GEN past when  
*kana* *m-i-a-elese=mana* *lhaamaama-* *uam.4( )1457(1)-250.295( )*

(2.5)

**Extract from text 3: How to make a mat.**

Recording location: Selhengane (Chinese name: Jianchashao )

Date: 02 December 2008

Narrator: Langui Tavuiana (Chinese name: )

Person who helped me to transcribe: Eleke Lhauracana (Chinese name: )

(3.1) *ki-a-lha-lhamu=aku*                      *n*    *kana*                      *tu-a-sikame.*  
tell/talk-IRR-RED-tell/talk=1SG.NOM    OBL    PAUSE.FILLER    make-IRR-mat

- (3.7) *aali=cu m-aiengengece.*  
 take=COS.ASP AV-straighten  
 ‘(It is) taken to get straightened.’
- (3.8) *maaci lhi-paiengengec-a=cu=na ia, aali=cu*  
 when PERF.ASP-straighten-PV=COS.ASP=DEF TOP take=COS.ASP  
*tu-sikame.*  
 make-mat  
 ‘When (it) has been straightened, (it is) taken to make a mat.’
- (3.9) *maaci tu-sikame ia, tualhe-isa meemea t<um>alhenge*  
 when make-mat TOP can-3.GEN also make<AV>  
*valangevange.*  
 clothing.box(made.of.mat)  
 ‘When (one) makes a mat, it can also be used to make a clothing box.’
- (3.10) *tu-sikame.*  
 make-mat  
 ‘(One) makes a mat.’
- (3.11) *maaci ka kiariari a ucani ka uka’a=mana*  
 if LNK past LNK one LNK NEG=IMPERF.ASP  
*ka kiariari lhi-pu’a na kana sikame ia,*  
 LNK past PERF.ASP-buy OBL PAUSE.FILLER mat TOP  
*m-a-arua=ami a tapae=na meemea tu-sikame.*  
 AV-STAT-exist=EVI CORE Shell.flower=DEF also make-mat  
 ‘As for one thing that there was no money to buy a mat in the past, it is said  
 that the Shell flower could be used to make a mat.’
- (3.12) *aunaana ka kana kiariari ka uka’a=mana*  
 like.that LNK PAUSE.FILLER past LNK NEG=IMPERF.ASP  
*ka lhi-pu’a na sikame.*  
 LNK PERF.ASP-buy OBL mat  
 ‘That’s what the past was about when there was no money to buy a mat.’

**Extract from text 4: How to make sticky rice cakes.**

Recording location: Selhengane (Chinese name: Jianchashao )

Date: 08 December 2008

Narrator: Langui Tavuiana (Chinese name: )

Person who helped me to transcribe: Eleke Lhauracana (Chinese name: )

(4.1) *ki-a-lha-lhamu=aku* *n* *cucu* *kiariari* *maaci*

tell/talk-IRR-RED-tell/talk=1SG.NOM OBL person past when

*kana* *paka-paipai.*

PAUSE.FILLER make-sticky.rice.cake

‘I am going to talk about people of the past when (they) made sticky rice cakes.’

(4.2) *lhi-paka-paipai* .-30.1651( )-140.2-86571(w)JTJ 280-021180.295( )(i)2312(t)-2.1643618

(4.6) *maaci kana kiariari a ku karekelhe um-au-a-u*  
 if PAUSE.FILLER past LNK NEG often AV-RED-IRR-eat  
*paipai, ucani maaci m-a-aruru ka kana*  
 sticky.rice.cake one if AV-STAT-exist CORE pause.filler  
*um-aala alhaina lha m-a-aruru a taiara-isa.*  
 AV-take woman CONJ.COOR AV-STAT-exist CORE work-3.GEN  
 ‘In the past, (they) did not often eat sticky rice cakes. This was done on one  
 occasion if there was someone marrying a woman and there was preparatory  
 work for the marriage.’

(4.7) *taru-cu-cuvungu=na ia, ucani kana ka*  
 visual.action-RED-BOUND.ROOT=DEF TOP one PAUSE.FILLER LNK  
*tualhe-isa paka-paipai ia, aane-isa kukakuaku=cu.*  
 can-3.GEN make-sticky.rice.cake TOP eat-3.GEN together=COS.ASP  
 ‘On one occasion, (they) could make sticky rice cakes and eat  
 together.’

(4.8) *aunaana ka kiariari maaci kana um-u paipai.*  
 like.that LNK past when PAUSE.FILLER AV-eat sticky.rice.cake  
 ‘That’s the past (life) when (they) ate sticky rice cakes.’

(4.9) *aunaana acalhi-ku n kiariari*



**Extract from text 5: Introducing seaweed.**

(5.4) *ailhivuru-isa* 'arisakai=*na* *ava*<*a*>*vu* *ia*, *maaci* *kana*  
 add.together-3.GEN shrimp=DEF cook<IRR> TOP when PAUSE.FILLER  
*lhi-um-aala=cu* *lhangulhanguvi=na*  
 PERF.ASP-AV-take=COS.ASP seaweed=DEF  
*m-ali-ka-kua* *salia* *ia*, *a-teve-teve=mana*  
 AV-hand/head.motion-RED-get.to house/home TOP IRR-RED-cut=IMPERF.ASP  
*hai*.

PART

‘When they had taken seaweed home, they added the shrimp to cook together; they would still cut it.’

(5.5) *a-teve-teve-isa=mana* *lha* *maaci* *a* *ava*<*a*>*vu*  
 IRR-RED-cut-3.GEN=IMPERF.ASP CONJ.COOR when LNK cook<IRR>  
*isana* *ia*, *maaci* *a* *kana* *ailhivur-a* *isana*  
 3.INDEP top if LNK PAUSE.FILLER add.together-PV 3.INDEP  
*maaci* *m-a-arua* *a* *ailhivur-a* *isana* *ia*,  
 if AV-STAT-exist CORE add.together-PV 3.INDEP TOP  
*ailhivuru* *ava*<*a*>*vu*.

add.together cook<IRR>

‘They still cut (it), and when (they) cooked it, if there were other ingredients, (they) added (them) to cook together.’

(5.6) *tualhe-isa* *meemea* *kana* *ku-m-a-ta'e* *pa-camai*.  
 can-3.GEN also PAUSE.FILLER eat-AV-STAT-raw combine-side.dish  
 ‘It could also be eaten raw to combine with a side dish.’

(5.7) *maaci* *i-kua=cu* *kana* *mailhi=na*  
 if action.concerning.location-get.to=COS.ASP PAUSE.FILLER salt=DEF  
*ia*, *tualhe-isa* *meemea* *kana* *ku-m-a-ta'e* *pa-camai*.  
 TOP can-3.GEN also PAUSE.FILLER eat-AV-STAT-raw combine-side.dish  
 ‘If salt was added, it could also be eaten raw to combine with a side dish.’

(5.8) *maaci* *a* *kana* *aunaana* *ka* *kana* *kiariari*.  
 if LNK PAUSE.FILLER like.that LNK PAUSE.FILLER past  
 ‘That’s what the past life was.’

(5.9) *maaci kana pari-a-lhangulhanguvi ia, kiariari a*  
 if PAUSE.FILLER catch/take-A-seaweed TOP past LNK  
*ucani ka lhangulhanguvi pa-camai-isa ka*  
 one LNK seaweed combine-side.dish-3.AGR CORE  
*lhaamaama kiariari.*  
 old.person past  
 ‘If (they) got seaweed, old people of the past could combine one share of seaweed as a side dish.’

(5.10) *lha ucani ka kuu=kia kana*  
 CONJ.COOR one LNK NEG=POLITE.REQUEST PAUSE.FILLER  
*ali-ka-kua isana salia maaci um-u na*  
 hand/head.motion-RED-get.to 3.INDEP house/home if AV-eat OBL  
*m-aa-lhuulhungu=na.*  
 AV-BE:LOC/TEMP-creek=DEF  
 ‘And one thing, please do not take it home if (you) eat a creature of the creek!’

(5.11) *m-a-arukia valhita kulupungu ia,*  
 AV-STAT-exist=POLITE.REQUEST outside full(stomach) TOP  
*m-ara-ramucu=kia maaci lhi-um-u isana.*  
 AV-wash-hand=POLITE.REQUEST if PERF.ASP-AV-eat 3.INDEP  
 ‘Please eat so as to be full outside and please wd wad 6.001JTJ /R7 12 Tf 0.99941 0 0 1 462.84 .



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