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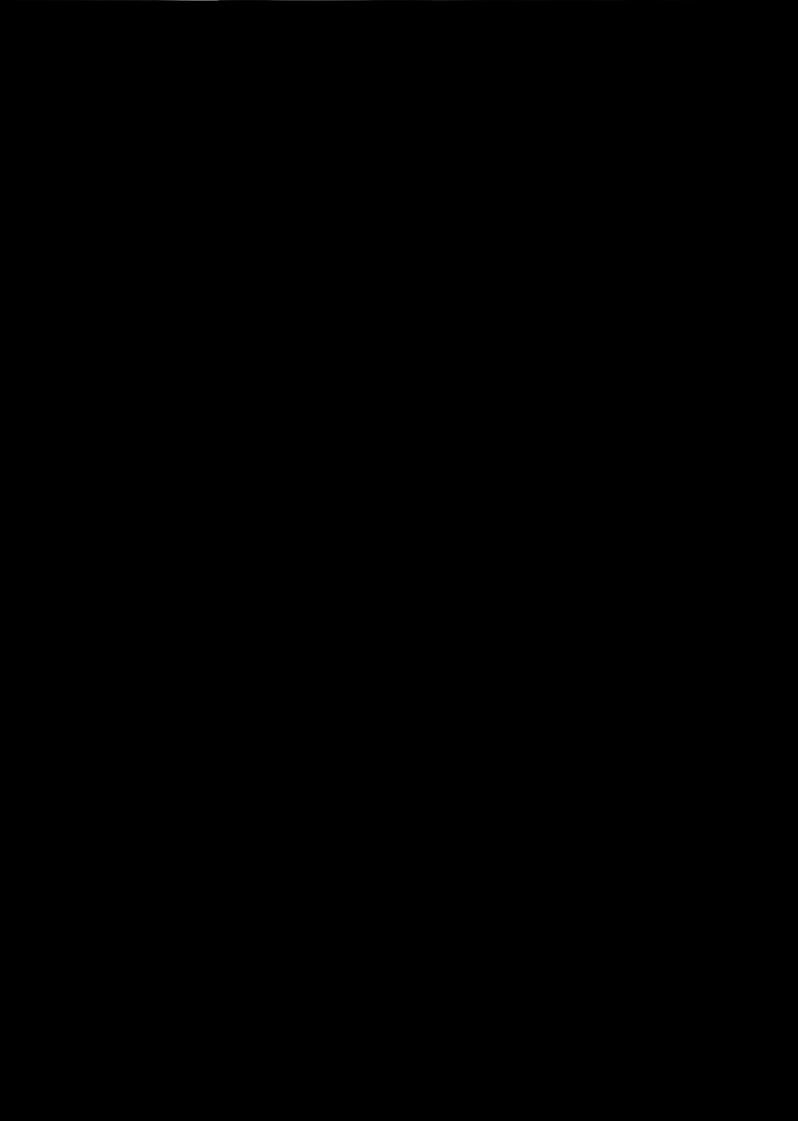# an Austronesian Language of Taiwan

Thesis submitted by

Chia-jung Pan

MA

in March 2012

for the degree of Doctor of Philosophy

in the School of Arts and Social Sciences

James Cook University

Acknowledgements

I am grateful to the numerous people and institutions that have, at various stages, supported me in writing the PhD thesis. Without their support and assistance, I would not have been able to finish this grammar.

In particular, I would like to acknowledge the invaluable assistance of the following Lha'alua speakers who patiently assisted in my linguistic fieldwork: *Eleke Lhauracana* (Chinese name:), *Amalanamalhe Salapuana* (Chinese name:), *Langui Tavuiana* (Chinese name:), *Caepe Lhatiunana* (Chinese name:), and *Vanau Tumamalikisase* (Chinese name:). Special thanks go to the oldest Lha'alua speaker, *Eleke Lhauracana* (Chinese name:), who was born in 1924. She is always willing to spend a lot of time working with me, teaching me the Lha'alua language, and sharing Lha'alua culture and traditional stories with me.

This thesis could never have happened without the excellent advice and encouragement of my three supervisors: Professor Alexandra Aikhenvald, Professor R.M.W. Dixon, and Professor Elizabeth Zeitoun. They have made my study at Cairns Institute/SASS, James Cook University one of the best memories in my life. I am most indebted to Professor Alexandra Aikhenvald, who carefully read each chapter and each draft many times. She also guided and encouraged me with great patience. She is my mentor and is, by all means, the best supervisor that I could have had. Professor R.M.W. Dixon read each chapter and gave me insightful comments. He

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_{pred}AO, if transitive, or V_{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,

Table of Contents

..

x

920.295(6)-0.276.2ogress

List of Tables

Tab.

List of Figures

List of Maps

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, ʡ, s, v, ts, m, n, ɬ, r, ʀ, ɨ/ 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.[5] While Northern Tsou is the so-called Tsou, Southern Tsou covers Kanakanavu and Lha'alua. The genetic su-1.23025( )6U4w3.74024(.)-0.146571( )-210.271(T)274(l)-2.16558(l)-2.16558(e)3.74(M 59(h)

(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	Atayalic	Tsou
Pazeh	Thao	**Lha'alua (Saaroa)**
Saisiyat	Favorlang	Kanakanavu
	Taokas	Bunun
	Siraya	Rukai
	Papora	Paiwan
	Hoanya	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.[9]

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[11]

(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 minimeters. 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

---

[11] 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 store wvatee

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.

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   ttttttttC/soeiNJ9(e)3.74(n)-9-21(( )f)2.80

should put chairs in order immediately after eating

non-traditional.[14] 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 Wisedom', 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 Table1.1 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
	Eleke Lhauracana	1924	female
	Amalanamalhe Salapuana	1948	male
	Langui Tavuiana	1934	female
	Caepe Lhatiunana	1948	male
	Vanau Tumamalikisase	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 Kanakanavu) (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

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

/N

	vs 0	/takiarɨ/	'God of Shell'
		/taiarɨ/	'Alo. cucull (plant name)'
d. /ʃ/	vs /ts/	/tsaraʃɨ/	'blood'
		/tsaratsɨ/	'louse (body)'
	vs /m/	/ʃatsiʃi/	'liver'
		/matsiʃi/	'to die'
	vs /ʀ/	/tŭʃu/	'place name/table'
		/tŭʀu/	'three (serial counting)'
	vs 0	/paʀiʃi/	'gall'
		/paʀii/	'male name'
	vs 0	/ʃau/	'soup'
		/au/	'to eat (in negative construction)'
e. /s/	vs /N/	/ʃavasɨ/	'tongue'
		/ʃavaNɨ/	'boat/canoe'
	vs /r/	/ʃusai/	'male name'
		/ʃurai/	'grease/oil/petroleum'
	vs /ʀ/	/taɨiusu/	'mulberry'
		/taɨiuʀu/	'barn/round basket woven from couch grass'
f. /v/	vs /ts/	/tsuvuʃu/	'bamboo shoot'
		/tsutsuʃu/	'person'
	vs /r/	/uvura/	'give'
		/urura/	'string (verb)'
	vs 0	/vŭru/	'bow'
		/ŭru/	'rice (cooked)'
g. /ts/	vs /ɨ/	/tsatsuʃu/	'Phyllostachys pubescens Mazel (plant name)'
		/tsaɨuʃu/	'Alocasia macrorrhiza (plant name)'
	vs /ʃ/	/matsitsi/	'hot (weather)'
		/matsiʃi/	'dead'
	vs /s/	/tukutsu/	'friend'
		/tukusu/	'bridge'
	vs /v/	/tsaraʃɨ/	'blood'
		/varaʃɨ/	'lung'
	vs /r/	/tsatsuʃu/	'Phyllostachys pubescens Mazel (plant name)'
		/ratsuʃu/	'bamboo'
	vs 0	/tsaɨuʃu/	'Alocasia macrorrhiza (plant name)'
		/aɨuʃu/	'honeybee'
h. /m/	vs /ts/	/maiɨi/	'salt'
		/tsaiɨi/	'year'

	vs /**k**/	/ta‑amɨ/	'practice/try'
		/ta‑akɨ/	'pig'
	vs /ɾ/	/ama/a/	'father'
		/a‑a/a/	'enemy'
	vs 0	/i‑amu/	'second person plural independent pronoun'
		/i‑au/	'second person singular independent pronoun'
i. /**n**/	vs /ɾ/	/maini/	'small'
		/mai‑i/	'salt'
	vs /**m**/	/a‑anɨ/	'right'
		/a‑amɨ/	'bird'
j. /**N**/	vs /**ts**/	/ʃuraNɨ/	'hemp plant'
		/ʃuratsɨ/	'vein/sinew'
	vs /**p**/	/NaRɨ/i/	'saliva'
		/paRɨ/i/	'gall'
	vs /**v**/	/vaNaɨ/	'Melia azedarach (plant name)'
		/vavaɨ/	'ribs'
	vs /**k**/	/ʃaNai/	'male name'
		/ʃakai/	'fish net'
	vs /**s**/	/ʃuuNu/	'horn'
		/ʃuusu/	'female name'
k. /**r**/	vs /**m**/	/mianɨ/	'pound (rice)'
		/rianɨ/	'both/all'
	vs /**ts**/	/ramuru/	'cub'
		/ramutsu/	'hand'
	vs /**k**/	/varatɨ/	'wind'
		/vakatɨ/	'melon'
	vs /**k**/	/ta‑uru/	'cave'
		/ta‑uku	

			/tavuРa/	'south'
		vs 0	/tavua/	'crow'
m. /ꟿ/	vs	/Ɽ/	/iꟿu∕u/	'beads/necklace'
			/iɽu∕u/	'intestines'
		vs /Ɽ/	/tavaNaꟿa/	'beans'
			/tavaNaɽa/	'place name'
		vs /s/	/Ɽiuꟿu/	'price'
			/Ɽiusu/	'butt'
		vs /m/	/maˇɽɨꟿɨ/	'eighty'
			/maˇɽɨmɨ/	'swallow'
		vs /k/	/tuꟿutsu/	'Derris trifoliate (plant name)'
			/tukutsu/	'friend'
		vs /t/	/ꟿamu∕u/	'grandchild'
			/tamu∕u/	'grandparent'
		vs /ts/	/tsaꟿu∕	

26

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/: /sɨɨɬanɨ/   [sɨɨɬanɨ]   '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/: /vɨtɨraɨ/   [vɨtɨraɨ]   '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/   [tʃiβuka]   'belly/stomach'
       b. /ts/ and /ɨ/: /tsɨtsɨmɨa/   [tsɨtsɨmɨa]   '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**/   /*masu̶/u/*   'fruit'
                  /*misu̶/u/*   'thirsty'
       vs /**ɨ**/   /*vara̶/a/*   'charcoal'
                  /*vara̶/ɨ/*   'lung'
       vs /**ɨ**/   /*ra̶ɨŊa/*   'sweat'
                  /*ra̶ɨŊɨ/*   'leaf'

2.1.2.3 Phonotactic distribution

	vs	/i/	/umĭ apɨ/	'read/study'
			/umiapɨ/	'count'
	vs	/i/	/ma˞ipĭ/	'thin'
			/ma˞ipi/	'laminated shape'
b. /ɨ̆/	vs	/ɨ/	/sɨ̆kɨ/	'male name'
			/tɨkɨ/	'heart'
c. /ŭ/	vs	/u/	/˞amŭna/	'now'
			/˞amuna/	'begin'
	vs	/u/	/vŭru/	'bow'
			/vur-u/	'give (PV.IMP)'
	vs	/u/	/kŭri/	'mavis (bird species)'
			/kuri-/	'shoot'
d. /ă/	vs	/a/	/pări/	'dry (verb)'
			/pari-/	'pluck/seize/catch'
	vs	/a/	/m-ă-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. /*ɔtobai*/ 'motorcycle (from Japanese)'

/**pʰ**/ is an aspirated voiceless bilabial stop, e.g. /*pʰuˇtɕau*/ 'grapes (from Mandarin Chinese)'

/**tʰ**/ is an aspirated voiceless alveolar stop, e.g. /*pʰuˇtɕau*/ 'grapes (from Mandarin Chinese)'

/**kʰ**/ is an aspirated voiceless velar stop, e.g. /*sik ˈkʰia*/ 'custard apple (from Taiwanese Southern Min)'. Note that the coda /*k ˈ*/ is unreleased.

/**tsʰ**/ is an aspirated voiceless alveolar affricate, e.g. /*tsʰaipu mapuˉi*/ 'radish (first element from Mandarin Chinese, second element from Lha'alua)'

/**tʃ**/ is an unaspirated voiceless palato-alveolar affricate, e.g. /*tʃuˇgoku*/ 'China (from Japanese)'

/**dz**/ is a voiced palato-alveolar affricate, e.g. /*dzuˇdzi*/ 'ten o'clock (from Japanese)'

/**g**/ is a voiced velar stop, e.g. /*go tʃoˉ*/ 'county chief (from Japanese)'

/**h**/ is a voiceless glottal fricative, e.g. /*huarɨ*/ 'place name (from Bunun)'

/**ɛ**/ is a low mid front unrounded vowel, e.g. /*tɛnki*/ 'electricity (from Japanese)'

/**ɔ**/ is a low mid back rounded vowel, e.g. /*pɔɾɔmi*/ '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(l)-2.16436()-2.16436()-2.16436()-2.16436()-2.)-2.3225(g)9.71032(.)-0.ʔ

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)   *kaɺlavúꞤu*   'cattle'
        slow/deliberate speech: /kà.ɺa.**vúꞌ.Ꞥu**/
        normal/rapid speech: /kà.ɺa.**vúꞤ**/

In (2.12), the word-final vowel /ɨ/ 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**
iɨ			*kiɨɽisɨ*	'together'		
iu	*iuNu*	'arrive(NEG)'	*miuNu*	'to arrive'	*matavu‑iu*	'red'
ia	*iapɨ*	'to count (NEG)'	*ʔaɽaɽiamɨ*	'small fly'	*ta‑iaria*	'sun'
ɨi			*pasaranaɨia*	'reliable'		
ɨu						
ɨa			*a‑aNɨaNa*	'dirty'	*mɨ̃mɨa*	'also/all'
ui			*takuiʔiarɨ*	'to work'	*ʔukui*	'goat'
uɨ						
ua	*uaɽu*	'eight (nonhuman)'	*kuaɽu*	'eight (serial counting)'	*usua*	'two (nonhuman)'
ai	*aisa*	'middle'	*taisa*	'big'	*makuɽai*	'fast'
aɨ	*aɨnɨmɨ*	'six (human)'	*maɨNɨ*	'sneeze'	*vavaɨ*	'ribs'
au	*aupatɨ*	'four (human)'	*tapaupau*	'mushroom'	*ʔaru‑iau*	'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

(2.14) a. /ꜜa.tɨ̆.Nɨ/ 'vegetable'

/ꜜa.

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. /ɴà.˞a.ɴá.˞a/   'again'

   b. /kù˞.a-.ɴa.˞a.ɴa.˞a.=á.ku ú.m-u ú˞.ru/
    eat-IRR-again=1SG.NOM AV-eat rice
    'I will eat rice again.'

   c. /ɨ̂-.ku-.ɴa.˞a.ɴa.˞a.=tsu.=á.ku   ú.m-u ú˞.ru/
    PERF.ASP-eat-again=COS.ASP=1SG.NOM AV-eat rice
    'I already ate rice again.'

(2.21) a. /m-*à̆-.a-.ma.i.ni.=á.ku*   m-ĭ.ma   má.pa.tsi/
             AV-drink-IRR-a.little=1SG.NOM   AV-drink   wine
             'I will drink a little wine'
      a'. */m-*à̆.a-.ma.i.ni.=á.ku m-ĭ.ma   má.pa.tsi*/
      b. /*ʃĩ-.m-à̆-.ma.i.ni.=á.ku*   m-ĭ.ma   má.pa.tsi/
             PERF.ASP-AV-drink-a.little=1SG.NOM   AV-drink   wine
             'I drank a little wine'
      b'. /*ʃĩ-.m-à-.ma.i.ni.=á.ku m-ĭ.ma má.pa.tsi*/   *a .*

(2.22) a. /*sà̆-.tsa.vú.-a*   *và.na.ú.=na*   *pá.pa.*/

(2.23) a. **mi̱#** 'rice plant' 'cogon grass' 'small fly'

                          pùˋsiámi̱ */àriámi̱* */àRaR̃ámi̱*

slow/deliberate speech: */pùˋ.si.á.mi̱/* *//à.ri.á.mi̱/* *//à.Ra.R̃.á.mi̱/*

normal/rapid speech: */pùˋ.si.ám/* *//à.ri.ám/* *//à.Ra.R̃.ám/*

  b. **N̄i̱#** 'sweet potato' 'vegetable' 'when'

                          maˇiráN̄i̱ *Játi̱N̄i̱* *tsuJàumáN̄i̱*

slow/deliberate speech: */maˋ.i.rá.N̄i̱/* */Játi̱.N̄i̱/* */tsu.Jà.u.má.N̄i̱/*

normal/rapid speech: */maˋ.i.ráN̄/* */Já.ti̱N̄/* */ tsu.Jà.u.máN̄/*

  c. **N̄u#**[17] 'cattle' 'skin' 'meet'

                          tàuruN̄u *kuRaR̃iN̄u*

slow/deliberate speech: */tà.u.rú.N̄u/* */k...N̄u/*

h. /ma.u.pa.tɨʎ/ /ma.u.pa.tɨ.ʃɛ/ 'forty'

i. /ma.ɽi.maʎ/ /ma.ɽi.ma.ʃɛ/ 'fifty'

j. /ma.ɨ.nɨ.mɨʎ/ /ma.ɨ.nɨ.mɨ.ʃɛ/ 'sixty'

k. /ma.pi.tuʎ/ 28 5-63 250.29ma.pi.tu.ʃɛ426 0.2536'sev{J-258950.294( )-25941 0 0

l. /maʎ

d. /pùˇ.si.ǎ.**mɨ**/   'rice plant'
    /pùˇ.si.a.**mǐ**-ku/   (rice.plant-1SG.GEN) 'my rice plant'

2.4 Morphophonemic rules

(2.28)   /**uru**-/   /**uɾu**-/

         /m-uru-tisi/   /m-uɾu-a-ɾɨ̆-/ɨ/

         (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 /ɨ/ when the high central unrounded vowel /ɨ/ is next to it. Examples of prefixation are given in (2.29). Examples of infixation are shown in (2.30).

(2.29)   **Underlying form**   **Derived form**
    a. /k**u**-**ɨ**ɾɨsɨ/   /k**ɨ**-**ɨ**ɾɨsɨ/   (eat-together)   'eat together'
    b. /k**u**-ɾɨpɨNɨ/   /k**ɨ**-ɾɨpɨNɨ/   (eat-finish)   'eat up'
    c. /tak**u**-**ɨ**ɾɨsɨ/   /tak**ɨ**-**ɨ**ɾɨsɨ/   (work-together)   'work together'
    d. /tak**u**-ɾɨpɨNɨ/   /tak**ɨ**-ɾɨpɨNɨ/   (work-finish)   'finish working'
    e. /m-**u**-tsɨkɨɬɨ/   /m-**ɨ**-tsɨkɨɬɨ/   (AV-motion.on.foot-come) 'come'

(2.30)   **Underlying form**   **Derived form**
    a. /ɾ<**um**>**ɨ**vɨNɨ/   /ɾ<**ɨm**>**ɨ**vɨNɨ/   (conceal<AV>)   'conceal'
    b. /t<**um**>**ɨ**ɾɨɾaɬɨ/   /t<**ɨm**>**ɨ**ɾɨɾaɬɨ/   (earthquake<AV>)   'earthquake'

/ɨ/ after prefixation or infixation.

(2.32) **Underlying form**   **Derived form**

a. /ku-ɨʀɨsɨ/   /ku-a-ɨʀɨsɨ/   (eat-IRR-together)   'to eat together'

b. /ku-ʀɨpɨɲɨ/   /ku-a-ʀɨpɨɲɨ/   (eat-IRR-finish)   'to eat up'

c. /takku-ɨʀɨsɨ/   /takku-a-ɨʀɨsɨ/   (work-IRR-together)   'to work together'

d. /takku-ʀɨpɨɲɨ/   /takku-a-ʀɨpɨɲɨ/   (work-IRR-finish)   'to finish working'

e. /ʀ<um>ɨvɨɲɨ/   /ʀ<um>a-ʀɨvɨɲɨ/   (RED<AV>-conceal)   'to conceal'

f. /m-u-tsɨkɨ/

43

b. /

(2.39)　　**Underlying form**　　　**Derived form**　　　**cf.**
　　　a.　/taɨvɨ-**a**/　　　　　/taɨv-**a**/　　　　　/t<um>aɨvɨ/
　　　　　　　　　　　　　　　cover-PV　　　　　cover-AV
　　　　　　　　　　　　　　　'cover'　　　　　　'to cover'
　　　b.　/taɨvɨ-**ana**/　　　/taɨv-**ana**/　　　/t<um>aɨvɨ/
　　　　　　　　　　　　　　　cover-LV　　　　　cover-AV
　　　　　　　　　　　　　　　'cover'　　　　　　'cover'
　　　c.　/uʀuɴu-**a**/　　　　/uʀuɴ-**a**/　　　　/um-uʀuɴu/
　　　　　　　　　　　　　　　take.off-PV　　　AV-take.off
　　　　　　　　　　　　　　　'take (clothes) off'　'take (clothes) off'

(2.40)　　**Underlying form**　　　**Derived form**　　　**cf.**
　　　a.　/ia-pa-puaʀɨ-**a**/　　/ia-pa-puaʀ-**a**/　/m-ia-pa-puaʀɨ/
　　　　　　　　　　　　　　　push-RED-BOUND.ROOT-PV　AV-push-RED-BOUND.ROOT
　　　　　　　　　　　　　　　'push'　　　　　　　'push'
　　　b.　/ia-pa-puaʀɨ-**ana**/　/ia-pa-puaʀ-**ana**/　/m-ia-pa-puaʀɨ/
　　　　　　　　　　　　　　　push-RED-BOUND.ROOT-LV　AV-push-RED-BOUND.ROOT
　　　　　　　　　　　　　　　'push'　　　　　　　'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)　　**Underlying form**　　**Derived form**　　　**cf.**
　　　a. /ɨʀɨvɨ-**ana**/　　　　/ɨʀɨvɨ-**ana**/　　　/m-ɨ

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. /tamuʔu/   'grandparent'
            /tamu-ku/   (grandparent-1SG.GEN)   'my grandparent'
        b. /inaʔa/   'mother'
            /ina-ku/   (mother-1SG.GEN)   'my mother'
        c. /vuꞐuʔu/   'head'
            /vuꞐu-ta/   (head-1PL.INCL.GEN)   'our head'
        d. /varaʔa/   'charcoal'
            /vara-ɟamu/   (charcoal

b. /tsaraɬ/   'blood'

   /m-uru-tsaraɬ/   (AV-come.out-blood)   'bleed'

The third environment involves / /

right next to it after affixation.

(2.48) **Underlying form**   **Derived form**
  a. /m-*a˘-a-maini*/ /m-*a-a-maini*/ (AV-drink-IRR-a.little) 'to drink a little'
  b. /sa˘-*a n̆ɨ-a*/   /sa-*a n̆ɨ-a*/ (3.GEN-eat-PV)   'he ate'
     OR   /sa˘-*anɨ-a*/ (3.GEN-eat -PV) 'he ate'
  c. /sa˘-*aʀɨ-a*/   /sa-*aʀɨ-a*/ (3.GEN-take-PV) 'he took'
  d. /apa˘-a-*ʀɨviNɨ*/ /apa-a-*ʀɨviNɨ*/ (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

b. *ama'a*

Б7

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-aru*   *a*   [*kalavungu-ku*]   **ucani**.
      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-aru*   *a*   **ucani**   [*likilhi-ku*]   *um-aru-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-aru*   **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-aru*   *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) **CVˇ- (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,

b. *i\<a\>ma-isa$_i$*   **ka**   **ina$_i$-ku**

c. *ku*   *a*   ***tautau=na***

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

lhi-aala [*'angai*]$_A$ [***vutukulhu=na***]$_O$ *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	*kani'i*	*ia,*	*ausi*
AV-action.concerning.location-BOUND.ROOT	this/now	TOP	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: *CV ̄* reduplication**

*m-utu-a-**taa**-tapusu*   *a*

AV-contact/move.toward5(u)-0.2955216558c r52 37442(e)3.74(d)-r( )T77(u)-4.33117(pr53637117

(3.48) **The modality marker *=iau* 'uncertain'**

*m-a-aru=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*]_E!

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*]$_O$ *a,*   *i<a>ma-isa*   [*ka*   *lhaamaama*]$_A$.

        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**]$_A$ [*a*   *valhituku-isa*

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

        ama'a]$_O$.

        father

        'I took father's money.'

(3.58)

s .295( )' 1 931525.1781(A)47   4365ather

3.in97(a)50'.1-d.295(a)t25ï0.295( )d2997( )-0.147792(m)0.29i on-2.16436(s)-250.2J ( )i   .295( )n

   ] O

O

   .

[( )-250.295( )-50/R.301 .

295s Oss Os s 9941 0 0122.00-259994802.80561(a)3.74(t)-2.16558(h)-0.295585(e)3.74(r)2.80518( )]TJ T*[( )-2ƽ

5( )-250.295( )-250.295( )-250.295( )-250.295( )-250.295( )-250.295( )-250.295( )-250.295(-25)-2-238.34102.80561(a)3.74(t

76

(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*]_O   *a,*   *i<a>ma-isa*   [*ka*   *lhaamaama*]_A   [***na***

wine   TOP   drink(PV)OP

(3.62) a. *lhi-u-lhamare*   [*a*   *lhaamaama*]_S   **kiira**
        PERF.ASP-AV-set.fire.to.mountain   CORE   old.person   yesterday

   [*caacapukaa*]_E.
   couch.grass.plain

   'The old person set fire to mountain's couch grass plain yesterday.'

   b. *lhi-u-lhamare* [*a lhaamaama*]_S [*caacapukaa*]_E **kiira**.

   c. **kiira** *lhi-u-lhamare* [*a lhaamaama*]_S [*caacapukaa*]_E.

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   pakiaturua   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

80

b. *lhi-tineen-**a**=cu*   [*a*   *eleke*]_A   [*a*   *tikuru*]_O
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'.

f. 522(387)B.74(d)-0.295585( )-160.241(b)-10.3015(y)c8.3 5223 T8518( )]TJ -0.220.294974())2.8485( )250]TJ /

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-aru=cu**   *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 (a)Th⁄R7( )1⁊(j)2⅜2(

83

(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	*langica* 'high/tall', *m-elengese* 'long (distance)', *raalhua* 'long (time)', *m-a-niteke* 'short', *taisa* 'big', *m-a-ini* 'small', *m-a-lakeve* '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)2.45*

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-**tu*lor (l   ng

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*]_A=*na*   [*saunga*]_O.

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 form 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***]_S   [*vutukulhu*]_E   *na*   *sakeralhe=na.*
AV-IRR-take=1PL.EXCL.NOM   fish   OBL   river=DEF
'<u>We</u> will catch fish in the river.'

b. *lhi-aala*[*-**lhamu***]_A   [*vutukulhu*]_O   *na*   *sakeralhe=na.*
PERF.ASP-take(PV)-1PL.EXCL.GEN   fish   OBL   river=DEF
'We have caught <u>the fish</u> in the river.'

(3.106) **S=O**

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

101

b. *lhi-pu-pici-a*[*-lhamu*]_A   [***kiu'u=na***]_O.

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 oc217(L)116 52.1602 T16d474(p)-0.295585(e)3.74(n)-0.29558

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

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***]ₛ*?*
         PERF.ASP-AV-eat=COS.ASP=Q   3.INDEP=DEF
         'Has he eaten?'

      b. *u-a-vuru*[*=aku*]ₛ   [*ilhamu*]ₑ   [***na   kani'i***]ₑ.
         AV-IRR-give=1SG.NOM   2PL.INDEP   OBL   this
         'I will give you this.'

      c. *lhi-tulhuc-a=cu*
         PERF.ASP-put.Derris.trifoliate.so.as.to.let.it.flow.and.poison-PV=COS.ASP
         [***a   kana'a=na***]ₐ   [*a   vutukulhu*]ₒ *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-ER x-   F

110

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. *lhi-m-u-sala=aku*   *n*   ***kana'a***

        PERF.ASP-AV-motion.on.foot-road=1SG.NOM   OBL   that

        saa-saree-ana.

        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)-594(i.-)-1ni.cod(t.(a)3l7fi 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, monosyndesis 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-**u**lungu* 'take off'

    b. *um-**a**race*   'bite'

    c. *um-**i**lave*   'chew'

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

(4.4) a. *u-**p**ana*   'shoot'

    b. *u-**v**uru*   'give'

    c. *u-**m**ia*   '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.	*m-ari-tamaku*	'smoke'	*tamaku*	'cigarette'
b.	*m-ara-ramucu*	'wash hands'	*ramucu*	'hands'
c.	*m-ali-likilhi*	'board'	*likilhi*	'vehicle'
d.	*m-ari-'aapalataa*	'strike of a lightning'	*'aapalataa*	'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*, *tualhi=**cu-ku=i***
   if

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.*
   <small>AV-IRR-SOW   CORE father   OBL   millet</small>
   'Father will sow millet.'

(4.22) Example of derivational prefixation: *u-* 'motion on foot'
        *m-**u**-sala=ami   a   cucu-lhamu=na*
        <small>AV-motion.on.foot-road=EVI   CORE   person-1PL.EXCL.GEN=DEF</small>
        u-kiri-kirimi   alemelhe.
        <small>AV-RED-search/hunt   wild.boar</small>
        '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

7B.14f4TJ -411.7543 -18 T57h

(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.   aa.236( )-60.85(a

(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. *tapataparu*   '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.

o(37.3.04275(D)722]TJ 39.522cs: di   h

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.	*lhikelecelha*	'heart (organ)'[26]
f.	*ngiingisi*	'pubic hair'
g.	*pali'i*	'gall'
h.	*pelheke*	'navel'
i.	*tapuunge*	'elbow'
j.	*tuave'era*	'arm'

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

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

(5.4) **Common nouns: animals**

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

(5.5) **Common nouns: plants**

a.	*'arisange*	'pigeon peas'
b.	*alenge*	'pine tree'
c.	*erelha*	'miscanthus'
d.	*lavalhi*	'Asplenium nidus'

---

[26] 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*

)27)-0.295585(g)9.7148.295((Td [T-1s(374(s)( )-87)27518475(a)3.74(s18 Td 37.2192(')237.2192(')2.80518( )]TJ(9-0.2(e

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

Non-vocative forms	Meanings
tamu'u tulhulha	'great grandparent'
tamu'u tulhulha alhaina	'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[29]

Female names	Male names

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.[30]

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[31]

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

---

[31] ? 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.

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

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.	*apɯ*	F	*ina-laa n-apɯ*	*ina-lu k-apɯ*
2.	*aruai*	F	*ina-laa n-aruai*	*ina-lu k-aruai*
3.	*iɲuru*	F	*ina-laa n-inguru*	*ina-li k-inguru*
4.	*ɯlɯkɯ*	F	*ina-laa n-ɯlɯkɯ*	*ina-a p-ɯlɯkɯ*
5.	*vanau*	F	*ina-laa vanau*	*ina-lu ku-vanau*
6.	*amalɯ*	M	*ama-laa n-amalɯ*	*aa k-amalɯ*
7.	*ɯl*			

ɯF /R10 12 Tf 0.99941 0 0 1 138.658Td /84 Tm ( )Tf0.295585(a)-0.295585( )-0n

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.	*relhece*	'Chinese name: Kaochung Village '
g.	*savusa*	'Chinese name: Tulongwan '
h.	*selhengane*	'Chinese name: Jianchashao '
i.	*suaci*	'Chinese name: Guohe '
j.	*taipake*	'Chinese name: Taipei '
k.	*taivange*	'Chinese name: Taiwan '
l.	*takaua*	'Chinese name: Kaohsiung '
m.	*tamulasai*	'Chinese name: Zhangshan '
o.	*taunga'ala*	'Chinese name: Laonong '
p.	*tavangala*	'Chinese name: Tinglaonong '
q.	*tavulungana*	'Chinese name: Meixiutai '
r.	*tuvutavalhe*	'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***-*taurungu*-***a***

   'place where Formosan muntjacs gather'

   cf. *taurungu* 'Formosan muntjac'

f. ***vu***-*vutulhu*-***a***

   'place where deer gather'

   cf. *vutulhu* 'deer'

(ii) ***CV⁻ reduplication plus -a***. Analogous to *CV-* reduplication plus *-a*, *CV⁻* 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) ***CV⁻ 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) ***CV⁻ 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) *CV̆ - 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 *CV̆ reduplication plus -ana*, the definite marker *=na* can also co-occur with *-ana* to obtain definiteness effect.

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

      a. *saa-saree-ana*

         'earth' (lit. place where soil is gathered)

         cf. *saree* 'soil'

      b. *saa-saree-ana=na*

(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 a

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: *CV-̆* triplication**

    ***lhaa-lhaa**-lhaamaama*

    RED-RED-old.person

    'old people' (plurality)

    cf. *lhaamaama* 'old person'

(ii) (***C***)***VCV*- 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*)*VCV*- 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.[35] 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 theAActo36.6 684.50iDEt

aT36(h)-0.295585(e)3.74( )-0.147792-0.147792(.74(l)-2.163(l)-23)-23   32845lnts5l5ltots

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.	*m-aru-**a**-riri*	'to speak'
d.	*m-aru-**a**-taeve*	'to uncover'
e.	*m-i\<**a**\>ma*	'to drink'
f.	*m-i-**a**-ungu*	'to arrive'
g.	*u-**a**-pana*	'to shoot'
h.	*um-**a**-u*	'to eat'
i.	*um-**a**-ulungu*	'to take off'
j.	*palhu-**a**-salhi*	'to sing songs'
k.	*pi-**a**-salupu*	'to fish'
l.	*ku-**a**-elese*	'to eat together'
m.	*kuri-**a**-muamuare*	'to shoot slowly'

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

 a. *um-**a**-u=amu*   *papa'a.*
  AV-IRR-eat=1PL.EXCL.NOM   meat
  'We will eat meat.'

 b. *m-i\<**a**\>ma=ita*   *salhumu.*
  AV-drink\<IRR\>=1PL.INCL.NOM   water
  'We will drink water.'

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

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

 a. *m-aa-**ta**-tuvu-tuvuku*   'to gulp'
 b. *m-aa-**taa**-tumulhu*   'to drink a lot'
 c. *m-aa-**maa**-m-a-ini*   'to drink a little'
 d. *m-ai-**ka**-kepele*   'to grasp'
 e. *m-ai-**sa**-savu-savuane*   'to cure/heal'
 f. *m-i-**ka**-kua*

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. ***c****<um>**a*-capa*   'to broil'

    b. ***c****<um>**a*-culhu*   'to burn/start fire/set fire'

    c. ***k****<um>**a*-kalii*   'to dig'

    d. ***k****<um>**a*-kita*   'to look at'

    e. ***k****<um>**a*-kurange*   'to bake (in stones or coals)'

    f. ***l****<um>**a*-lemeke*   'to plant'

    g. ***l****<um>**a*-lili*   'to apply (ointment)'

    h. ***lh****<um>**a*-lhavu*   'to wash (clothes)'

    i. ***s****<um>**a*-sala*   'to repair roads'

    j. ***s****<um>**a*-sulhate*   'to write'

    k. ***t****<um>**a*-tineene*   'to weave'

    l. ***t****<um>**a*-timalha*   'to listen'

    m. ***t****<um>**a*-tulhucu*   'to put Derris trifoliate (plant name) so as to let it 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-***v21204395593(0-3205(n2-422-425)a462295672035(s)}T22997(a28#25a4d)0301215193574(3

           (a(')25(6250.295(7g7( )-250.2952250.295(7g5250.295(7g)a(')25(1.f)28635/R142 [( )2

(6.27) **Progressive aspect: *CV˘* - 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 **au**is ea*6i378.8 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 (

(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-***, ***CV-*** and ***C₁V₁C₂V₂-***. They are exe946252 349.2 499949555(l)-2.15(e)3ica

(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 *ø* (i.e. zero-marking) is lexically determined. Examples of Actor voice markers *m-* and *ø* are provided below.

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

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

    b. *avavu*   'cooks/cooked'

    c. *kira-ma-maini*   'walks/walked with little steps'

    d. *ke-seke-sekere*   'finishes/finished eating'

    e. *paaripa*   'blows/blew'

    f. *puliulhu*   'changes/changed'

    g. *pu'a*   'sells/sold'

    h. *ru-a-vici*   'to bring'

    i. *ru-pici*   'tears/tore apart'

    j. *tara-ene*   'washes/washed; brushes/brushed'

    k. *ti<a>pili*   '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-m**ia 'passes/passed'
b. **u-p**alu 'waits/waited'
c. **u-p**ana 'shoots/shot'
d. **u-p**au 'skins/skinned'
e. **u-v**uru 'gives/gave'

(6.67) lhi-**u-p**ana=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-k****irimi*   '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)3.740

(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

210

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*   *eleke.*
        NEG   STAT-a.lot   CORE   money-3.AGR   female.name

4

211

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
tapataparu!
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.trifoliate.so.as.to.let.it.flow.and.poison   shrimp
'Please don't put Derris trifoliate (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-*.[41] 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

---

[41] 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-***]ₐ *panu-a=cu*   [*a   alemelhe*]ₒ.
3.GEN-shoot-PV=COS.ASP   CORE   wild.boar
'He shot the wild boar.

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

saaᵢ-panu-a=cu   [*paliiᵢ*]ₐ   [*a   alemelhe*]ₒ.
3.AGR-shoot-PV=COS.ASP   male.name   CORE   wild.boar
'Palii 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 ø- 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-/ø-*)**

    a. ***um-**a-ulhi*   ['*angai*]$_S$ [*sulhati-u*]$_E$ *maataata*.
      AV-IRR-borrow   male.name   book-2SG.GEN   tomorrow
      ''angai will borrow your book tomorrow.'

    b. *l<**um**>a-lemeke*   [*a*   *eleke*]$_S$ [*mairange*]$_E$ *cu-cailhi*.
      IRR<AV>-plant   CORE   female.name   sweet.potato   IRR-year
      'Eleke will plant sweet potatoes next year.'

    c. ***u-**a-pana*   [*lhalhusa*]$_S$ [*na*   *vutulhu*]$_E$.
      AV-IRR-shoot/hunt   man   OBL   deer
      'The men will hunt deer.'

    d. ***m-**i<a>ma*   ['*angai*]$_S$ [*mapaci*]$_E$.
      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*]~A~   [*a   masu'u-isa   alhalua*]~O~.
   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**]*~S~ [*uuru*]~E~

a. *um-au-a-**u**[=**amu**]*~S~ [*uuru*]~E~

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 <u>I</u> 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
     '<u>We</u> 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 <u>the water</u>

(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 <u>Na'pu's water</u>.'

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$_{head}$ [-Gen$_{possessor\ (first,\ second\ or\ third\ person)}$]**

     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*   **ungulhu**[*-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**[4e]

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-aru   *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-aru   *a*   ***ucani***   ***likilhi-ku***   *um-aru-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/-ø*)) 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-aru=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   taisa=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
	nominative	genitive		possessive
1SG	=*aku*	-*ku*	*ilha-ku*	*isikana-ku*
2SG	=*u*	-*u*	*ilha-u*	*isikana-u*
3SG	–	-*isa* (3PL) [47], *saa-* (3PL)	*isa=na* (3PL	

e. *lhi-tu-puru=cu*[*=amu*]ₛ.
PERF.ASP-sit.down-BOUND.ROOT=COS.ASP=1PL.EXCL.NOM
'<u>We</u> 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***]ₛ   [*vutukulhu*]ₑ.
AV-IRR-eat=1PL.EXCL.NOM   fish
'<u>We</u> will eat fish.'

b. *l<**um**>a-lemeke*[*=**aku**]ₛ   [*'intavange*]ₑ.
IRR<AV>-plant =1SG.NOM   taro
'<u>I</u> will plant taros.'

c. ***u-****palu-palu*[***=amu***]ₛ   [*na   cucu'u=na*]ₑ.
AV-RED-wait=1PL.EXCL.NOM   OBL   person=DEF

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

'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

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

(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***   *ilhata*]_A

    set.fire.to.mountain-PV=COS.ASP   CORE2.80439(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-/ø-*)**

k<um>a-kii-kita   [*a*   *lhakana'ana*]_S   ['*alhingu*]_E.

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

'<u>They</u> 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***]ₑ.
   AV-RED-search/hunt   3.INDEP

Table 7.4: Genitive pronouns and their related verb agreement forms

	bound	
	affixes	affixes
	agreement forms	**genitive pronouns**
1SG	-	*-ku*
2SG	-	*-u*
3SG	*-isa* (3PL)[51], *saa-* (3PL)	*-isa* (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*/-*ø*)) in person
and number

saa $_i$-ia-pual-a   [*'aavi $_i$*]$_A$ [*a*   *likilhi*]$_O$
3.AGR-thrust/push-BOUND.ROOT-PV   male.name   CORE   vehicle
kiira.
yesterday
''aavi pushed <u>the vehicle</u> yesterday.'

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

tam   m-a-tumulhu   a   'urai-isa $_i$ ka   papa'a $_i$=na.
very   AV-STAT-a.lot   CORE   fat-3.AGR   GEN   meat=DEF
'<u>The fat of the meat</u> 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*/-*ø*))) or a

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

i<a>ma-lhamu   salhumu-**isa** ᵢ   **cucu'u** ᵢ **=na**.

drink(PV)<IRR>-1PL.EXCL.GEN   water-3.AGR   person=DEF

'We will drink <u>the person's water</u>.'

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

(8.6) **A dynamic predicate**

m-alusapi=cu   [*a*   *'a'ai*]_S.
INTR/AV-sleep=COS.ASP   CORE   baby
'The baby has slept.'

(8.7) **A dynamic predicate**

lhi-tu-puru=cu   [*ka*   *lhaamaama*]_S.
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*]_A   [*parana*]_O.
         bamboo   house

(8.22) **Existential clauses**

   a.

(8.23) **Locative clauses**

a. ***m-a-aru=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-aru=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-aru***   *a*   *ucani*   al.295585(l.295585(l.-25a)-0.295585(m0 0 1)]TJ /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.[53] 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.

---

[53] 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*]RC.

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]_{RC}.

female.name

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

b. **Pre-nominal external RC**

uka'a=cu   *ka*   [*lhi-aala-isa*   *ka*   *lhatingai*]_{RC}

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*]_{RC}.

RED<AV>-RED-cry   CORE   baby   LNK   AV-STAT-hungry

'The baby who is hungry is crying.'

b. *m-ia-taa-tuu-tumu=aku*   ***alha'a=na***

AV-thrust/push-RED-   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

'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*]_S   [**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*]_A   [**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*   *vatu'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*   *ungulhu-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-aru* '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-aru=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

	VERBAL				
SEMANTIC TYPES	VOICE INFLECTION	IRREALIS MARKING	ASPECT MARKING	BOUND PRONOUN ATTRACTION	WORD CLASS

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 pronound 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.

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-

(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)-0.8043

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*]_E=***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. *m-ia-tumu-**a=mau***   'hit by fists'

f. *l<um>ili-**a=mau***   'apply (ointment)'

g. *l<em>eveng-**a=mau***   'conceal'

h. *t<um>aev-a=**mau***   'cover'

i. *t<um>ulhuc-**a=mau***   'put Derris trifoliate (a plant name) and let
     it flow'

j. *um-ailh-**a=mau***   'deposit/preserve'

k. *um-urur-**a=mau***   'thread'

l. *u-lhamar-**a=mau***   'set fire to mountains'

m *u-kii-kirim-**a=mau***   'search'

n. *ru-pici-**a=mau***   'tear apart'

o. *kira-pulit-**a=mau***   'step on so as to separate'

(9.62) **The imperative suffix -*a* in Actor voice constructions with strong request**
         cuu=mau

a. ***cuu=mau*** *m-aru-taev-**a***   'uncover'

b. ***cuu=mau*** *m-ia-pual-**a***   'push'

c. ***cuu=mau*** *m-ai-kepel-**a***   'grasp'

d. ***cuu=mau*** *m-ati-sangal-**a***   'catch'

e. ***cuu=mau*** *m-ia-tumu-**a***   'hit by fists'

f. ***cuu=mau*** *l<um>ili-**a***   'apply (ointment)'

g. ***cuu=mau*** *l<em>eveng-**a***   'conceal'

h. ***cuu=mau*** *t<um>aev-a*   'cover'

i. ***cuu=mau*** *t<um>ulhuc-**a***   'put Derris trifoliate (a plant name) and let
     it flow'

j. ***cuu=mau*** *um-ailh-**a***   'deposit/preserve'

k. ***cuu=mau*** *um-urur-**a***   'thread'

l. ***cuu=mau*** *u-lhamar-**a***   'set fire to mountains'

m ***cuu=mau*** *u-kii-kirim-**a***   'search'

n. ***cuu=mau*** *ru-pici-**a***   'tear apart'

o. ***cuu=mau*** *kira-pulit-**a***   '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*]_E!

CORE   bamboo=

(9.64)

(9.66) **The imperative suffix *-u* in patient voice constructions with strong request *cuu=mau***

a. ***cuu=mau** aru-taiv-**u***   'uncover'
b. ***cuu=mau** ia-pual-**u***   'push'
c. ***cuu=mau** p-ai-kepil-**u**/p-ai-kipil-**u*** 'grasp'
d. ***cuu=mau** p-ati-sangal-**u***   'catch'
e. ***cuu=mau** ia-tum-**u***   'hit by fists'
f. ***cuu=mau** lili-**u***   'apply (ointment)'
g. ***cuu=mau** leving-**u**/living-**u***   'conceal'
h. ***cuu=mau** taiv-**u***   'cover'
i. ***cuu=mau** tulhuc-**u***   'put Derris trifoliate (a plant name) and let it flow'
j. ***cuu=mau** ailh-**u***   'deposit/preserve'
k. ***cuu=mau** urur-**u***   'thread'
l. ***cuu=mau** lhamar-**u***   'set fire to mountains'
m. ***cuu=mau** kii-kirim-**u***   'search'
n. ***cuu=mau** ru-pici-**u***   'tear apart'
o. ***cuu=mau** kira-pulit-**u***   'step on so as to separate'

(9.67) **Examples of strong request and the imperative suffix *-u* in patient voice constructions**

a. *cuu=mau*   *kira-pulit-**u***
    STRONG.REQUEST=STRONG.REQUEST   step.on-separate-PV.IMP
    [*a*   *racu'u=na*]_O!
    CORE   bamboo=DEF
    'Step on the bamboo so as to separate it!'

b. *cuu=mau*   *lili-**u***   [*savuane*]_O!
    STRONG.REQUEST=STRONG.REQUEST   apply-PV.IMP   ointment
    'Apply ointment!'

c. *tara-ena-**u**=mau*   [*tilha'alhi-u*]_O!
    rinse-BOUND.ROOT-PV.IMP=STRONG.REQUEST   body-2SG.GEN
    'Rinse your body!'

d. *living-**u**=mau*   [*valhituku*]_O!
    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*]E!

change(AV)-AV.IMP=STRONG ... [(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.trifoliate.so.as.to.let.it.flow.and.poison   fish

'Don't put Derris trifoliate (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!'

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]*_E!

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

       'Dig sweet potatoes stealthily!'

    b. *tara-ena-**u**=mau*   *[sapalhe-u]*_O!

       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 les deLhtid

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	
*pija	*pa-pija	'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-aru*   *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-aru*   *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-aru*   *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)   **Hsm2782.164361s)4f25(i)250.295(a)-33117(sie0295585(a)-0.29778044)-2.16436(e)444]TJ**

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-aru   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-aru   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
lailha-ucani	*'umara-rai-ca-cilhi*	'eleven' (TENS + one)
lailha-usua	*'umara-rai-sa-sua*	'twelve' (TENS + two)
lailha-utulu	*'umara-rai-ta-tulu*	'thirteen' (TENS + three)
lailha-upate	*'umara-rai-a-upate*	'fourteen' (TENS + four)
lailha-ulima	*'umara-rai-la-lima*	'fifteen' (TENS + five)
lailha-eneme	*'umara-rai-a-eneme*	'sixteen' (TENS + six)
lailha-upitu	*'umara-rai-pa-pitu*	'seventeen' (TENS + seven)
lailha-ualu	*'umara-rai-la-la-alu*	'eighteen' (TENS + eight)
lailha-usia	*'umara-rai-sa-sia*	'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
*ku-**ma**-a-**lhe***	***ma**-a-**lhe***	***'umara-ma**-a-**lhe***	'ten' (TENS X one)
ma**-pua-**lhe		***mata-ma**-pua-**lhe***	'twenty' (TENS X two)
ma**-tulu-**lhu		***mata-ma**-tulu-**lhu***	'thirty' (TENS X three)
ma**-upate-**lhe		***mata-ma**-upate-**lhe***	'forty' (TENS X four)
ma**-lima-**lhe		***mata-ma**-lima-**lhe***	'fifty' (TENS X five)
ma**-eneme-**lhe		***mata-ma**-eneme-**lhe***	'sixty' (TENS X six)
ma**-pitu-**lhe		***mata-ma**-pitu-**lhe***	'seventy' (TENS X seven)
ma**-ale-**lhe		***mata-ma**-ale-**lhe***	'eighty' (TENS X eight)
ma**-sia-**lhe		***mata-ma**-sia-**lhe***	'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

From one thousand to nine thousand (1,000-9,000)		
Serial counting / Nonhuman	Human	Translation and gloss
ucani	***mata-****ucani*	

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).[55]

(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)

---

[55] 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* .

94(k)3.-18.1   dis   dig-two=C 2.i   n>AS.29552>l(P0.28)a(.)-2di n>=77(669162)-nEfn39.9836.295585(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-*

(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-aru=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)]TJ 280-021180.295( )(i)2312(t)-2.1643618.*

371

(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-aru ka kana
sticky.rice.cake   one   if   AV-STAT-exist   CORE   pause.filler

um-aala alhaina lha m-a-aru 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-aru*   *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-aru=kia   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 6.001]TJ /R7 12 Tf 0.99941 0 0 1 462.84

References

Adelaar, K. Alexander. 1997. Grammar notes on Siraya, an extinct Formosan language.

Description, Volume II: Complex Constructions, 2nd edition, ed. by T. Shopen, 206-236. Cambridge: Cambridge University Press.

Beaumont, Clive H. 1980. *The Tigak Language of New Ireland*. Canberra: Pacific Linguistics.

Bhat, D.N.S. 1999. *The Prominence of Tense, Aspect and Mood*. Amsterdam: John Benjammins.

Blust, Robert. 1977. The proto-Austronesian pronouns and Austronesian subgrouping: A preliminary report. *Working Papers in Linguistics* 9.2:1-15. Honolulu: University of Hawai'i at M noa.

Blust, Robert. 1981. Review of Shigeru Tsuchida, *Reconstruction of Proto-Tsouic Phonology*. Study of languages and Cultures of Asia and Africa, Monograph Series, 5. Tokyo: Institute for the Study of Languages and Cultures of Asia and Africa, Tokyo University of Foreign Studies. *Language* 57.1:205-211.

Blust, Robert. 1998. C*a*-reduplication and Proto-Austronesian grammar. *Oceanic Linguistics* 37.2: 29-64.

Blust, Robert. 1999. Subgrouping, circularity and extinction: Some issues in Austronesian comparative linguistics. *Selected Papers from the Eighth International Conference on Austronesian Linguistics*, ed. by Elizabeth Zeitoun and Paul Jen-kuei Li, 31-94. Symposium Series of the Institute of Linguistics (Preparatory Office), Academia Sinica, No. 1. Taipei: Institute of Linguistics (Preparatory Office), Academia Sinica.

Blust, Robert. 2001. Squib: Thao triplication. *Oceanic Linguistics* 40.2:324-335.

Blust, Robert. 2003. *Thao Dictionary*. Language and Linguistics Monograph Series, A5. Taipei: Institute of Linguistics, Academia Sinica.

Blust, Robert. 2009. *The Austronesian Languages*. Canberra: Pacific Linguistics.

Bril, Isabelle. 2004. Coordination strategies and inclusory constructions in New Caledonian and Oceanic languages.

Relating to Taiwan. Taipei: Institute of Linguistics (Preparatory Office), Academia Sinica.

Chang, Henry Yungli. 2005. Restructuring in Tsou. Paper presented at the 12th Annual Conference of Austronesian Formal Linguistics Association (AFLA-12),

Dixon, R. M. W. 2003. Demonstratives: a cross-linguistic typology. *Studies in Language* 27.1:61-112.

Dixon, R. M. W. 2004. Adjective classes in typological perspective. *Adjective Classes: A Cross-Linguistic Typology*, eds. by R. M. W. Dixon and Alexandra Y. Aikhenvald, 1-49. Oxford: Oxford University Press.

Dixon, R. M. W. 2007. Field Linguistics: a minor manual. *Sprachtypologie und Universalienforschung* (Focus on Linguistic Fieldwork, ed. by Alexandra Y. Aikhenvald) 60(1):12-31.

Dixon, R. M. W. 2010a. *Basic Linguistic Theory: Volume One. Methodology.* Oxford: Oxford University Press.

Dixon, R. M. W. 2010b. *Basic Linguistic Theory: Volume Two. Grammatical Topics.* Oxford: Oxford University Press.

Dixon, R. M. W. 2012. *Basic Linguistic Theory: Volume Three. Further Grammatical Topics.* Oxford: Oxford University Press.

Dixon, R. M. W. and Aikhenvald, Alexandra Y. 2000. Introduction. In *Changing valency: Case studies in transitivity*, ed. by R. M. W. Dixon and Alexandra Y. Aikhenvald, 1-29. Cambridge and New York: Cambridge University Press.

Dixon, R. M. W. and Aikhenvald, Alexandra Y. 2002. Word: a typological framework. *Word: A Cross-Linguistic Typology*, eds. by R. M. W. Dixon and Alexandra Y. Aikhenvald, 1-41. Cambridge: Cambridge University Press.

Dyen, Isidore. 1971a. The Austronesian languages and proto-Austronesian. *Currrent Trends in Linguistics* 8, ed. by Thomas Sebeok, 5-875(.)-0.14657142(t)-2.16485( )-0.1477ht-g7(e)3

by Jacqueline M. C. Thomas and Lucien Bernot, 121-128. Paris: Klincksieck.

Freeze, Ray. 1992. Existential and other locatives. *Language* 68:553-595.

French, Koleen Matsude. 1988. The focus system in Philippine languages: an historical overview. *Philippine Journal of Linguistics* 19:1-27.

Guitart, J. 1978. On the pragmatics of Spanish mood in so-called semi-factive predicates. Unpublished manuscript, State University of New York, Buffalo.

Haspelmath, Martin. 2002. *Understanding Morphology*. London: Understanding Language Series, Arnold.

Haspelmath, Martin. 2007. Coordination. In *Language Typology and Syntactic Description, Volume II: Complex Constructions*, 2nd edition, ed. by T. Shopen, 1-51. Cambridge: Cambridge University Press.

Haudricourt, André G. 1965. Problems of Austronesian comparative philology. *Lingua* 14:315-329.

Heine, Bernd. 1997. *Possession: Cognitive sources, forces and grammaticalization*. Cambridge: Cambridge University Press.

Himmelmann, Nikolaus P. 2002. Voice in western Austronesian: an update. In *The History and Typology of Western Austronesian Voice System*, eds. Fay Wouk and Malcolm Ross, 7-16. Canberra: Pacific Linguistics, The Austronesian National University.

Himmelmann, Nikolaus P. 2005. The Austronesian languages of Asia and Madagascar: Typological characteristics. In *The Austronesian Languages of Asia and Madagascar*, eds. by K. Alexander Adelaar and Nikolaus P. Himmelmann, 110-181. London/New York: Routledge.

Holmer, Arthur. 2006. Seediq-adverbial heads in a Formosan language. In *Clause structure and adjuncts in Austronesian languages*, ed. by Hans-Martin Gärtner, Paul Law, and Joachim Sabel, 83–124. Berlin: Mouton de Gruyter.

Holmer, Arthur. 2007. Typological correlates of adverbial verbs. Talk given3436(k4.295585(t)-2.

Li, Paul Jen-kuei. 1997a. Saaroa. *The Formosan languages of Kaohsiung*, ed. by Li Jen-kuei, 272-297. Kaohsiung: Kaohsiung County Government. (In Chinese)

Li, Paul, Jen-kuei. 1997b. A syntactic typology of Formosan languages: case markers on nouns and pronouns. *Chinese Languages and Linguistics: Typological Studies of Languages in China*, ed. by Tseng Chiu-yu, 343-378. Symposium Series of the Institute of History and Philology 4. Taipei: Academia Sinica.

Li, Paul Jen-kuei. 2006a. Saaroa songs. In Ho, Dah-

52-150. Cambridge: Cambridge University Press.

Premsirat, 944-966. Salaya: Institute of Language and Culture for Rural Development, Mahidol University at Salaya. Subsequently published in Zeitoun, Elizabeth (Editor). 2009. *Formosan Linguistics: Stanley Starosta's Contributions,* 771-800. Language and Linguistics Monograph Series. Taipei: Academia Sinica.

Stassen, Leon. 2009. *Predicative Possession*. Oxford: Oxford University Press.

Su, Yi-fan. 2007. Lexical prefixes on verbal roots in Takituduh Bunun. ms. Hsinchu: National Tsing Hua University.

Sweetser, Eve E. 1990. *From Etymology to Pragmatics: Metaphorical and Cultural Aspects of Semantic Structure*iAHp130.223(C)-3.39556(u)-0.295585(l)-2.164361.23025(a1(e6.4189

(eds) *Chinese-Western Encounter: Studies in Linguistics and Literature*, 383-384. Taipei: The Crane Pub. Co.

Tsuchida, Shigeru. 1976. *Reconstruction of Proto-Tsouic Phonology.* Study of languages and Cultures of Asia and Africa, Monograph Series, 5. Tokyo: Institute for the Study of Languages and Cultures of Asia and Africa, Tokyo University of Foreign Studies.

Tsuchida, Shigeru. 1989. "Saaroa" *Gengogaku Daijiten* <Linguistic encyclopedia> vol.2, 1-5. Tokyo: Sanseido.

Tsuchida, Shigeru. 1990. Classificatory prefixes of Tsou verbs. *Tokyo University Linguistics Papers* 89:17-52.

Tsuchida, Shigeru. 1998. Lacunae in lexical studies on Formosan languages. Paper presented at the Conference on Linguistic Research Methodology. May 2, 1998. Taipei: National Chengchi University.

Tsuchida, Shigeru. 2000. Lexical prefixes and prefix harmony in Siraya. *Grammatical Analysis: Morphology, Syntax and Semantics: Studies in Honor of Stanley Starosta*, eds. by Videa P. de Guzman and Byron W. Bender, 109-28. Honolulu: University of Hawai'i Press.

Tung, Tung-ho. 1964. *A Descriptive Study of the Tsou Language, Formosan.* Taipei: Institute of History and Philology, Academia Sinica.

Vallduví, Enric. 1992. *The Informational Component.* New York/London: Garland Publishing Incorporation.

Wolff, John. 1995. The position of Austronesian languages of Taiwan within the Austronesian group. *Austronesian Studies Relating to Taiwan*, eds. by Paul J.-K.

Hsinchu: National Tsing Hua University MA thesis.

Zeitoun, Elizabeth. 1993. A semantic study of Tsou case markers. *Bulletin of the Institute of History and Philology* 64.4:969-989.

Zeitoun, Elizabeth. 2000a. Dynamic vs. stative verbs in Mantauran (Rukai), *Oceanic Linguistics* 39.2: 415-427.

Zeitoun, Elizabeth. 2000b. Notes on a possessive construction in the Formosan languages. *Grammatical Analysis: Morphology, Syntax, and Seman*

Zwicky, Arnold M. 1985. Clitics and particles. *Language* 61:283-305.