THE KEMALOH LUN BAWANG LANGUAGE OF BORNEO

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Dedicatur opus hoc ad honorem Glorisissimæ et Beatæ semper Virginis Mariæ, Genetricis Domini et Dei nostri Jesu Christi, et per illam ad dilectissimum Filium illius, ad cujus gloriam dirigantur omnia verba mea atque opera manuum mearum. Quodcumque autem erratum inventum erit meæ culpæ solum imputetur.

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Within Hawai'i

Thanks are due, too, to a large number of individuals within the University of Hawai'i for their contributions, whether proximate or remote, to the dissertation. Enumerating every single contribution would be tedious, perhaps impossible, so I limit myself here to a few persons of especial significance. In the first place are the members of my dissertation committee, foremost Robert Blust, the chairman. From even before our very first face-to-face meeting, Bob tried hard to convince me to come to Hawai'i, and once I did, he helped with my work in every way possible, from sharing decades-old field notes to exchanging Borneo stories and spending hours combing through earlier drafts of this and other writings. Also deserving of mention are the other members: William O'Grady, for numerous productive conversations on morphosyntax, especially symmetrical voice, and academia in general; Gary Holton, for a semester-long lesson on how *not* to write a grammar, as well as suggesting a method for converting my raw, MS Word-based Lun Bawang dictionary files into a much more usable homemade database; Bradley McDonnell, who joined the committee about 24 hours before (and therefore saved) my proposal defense when another member had to withdraw unexpectedly; and Ulrich Kozok, who taught me to speak Indonesian. In that last regard, thanks are also due to Ruri Ariati and Emma Ronsumbre.

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I must also mention Peter Schuelke, who introduced me to Austronesian voice, and Victoria Chen, for many a discussion thereon.

Thanks in particular to Daniel Lin for many reasons, foremost among them providing refuge during the writing of this dissertation when I was forced to temporarily flee my home.

Among the many people I have known in my non-academic life who have notably improved the quality of my time in Honolulu, some of the most deserving of thanks include, in no particular order, Albien and Faye, Jammy, Kiele, Suzanne, Makena, Dominic and Isabella, Marilu, Brian, Sean and Robin, the Benson and Cortes families, Fr. Rhone Lillard, Fr. Richard McNally, Fr. Christopher Keahi, Fr. Steve Nguyen, and the anonymous co-founder and only other member of the Tuesday Confraternity of Concerned Gentlemen, the most refined and sophisticated amateur bowling league the island of Oʻahu has ever seen.

On Borneo

Far too many people on Borneo were involved in or had contact with this work in some fashion to name each one. Lest the acknowledgements become a chapter in its own right, I limit myself to a few of the most important figures, in approximate order of acquaintance.

Gerawat Nulun Tuan, the only non-Lun Bawang on this list, is a Kelabit from Bario, a UH alumnus, and Bob Blust's first language consultant. Alex connected me with him in advance of my first trip to Borneo in summer 2017 and advised me to begin by flying to Bario to meet him. After a weekend in Miri, I boarded a DHC-6 Twin Otter and took off into the mountains. ("Why am I flying into the middle of nowhere with only a promise that a stranger will be waiting for me there? What if he doesn't come?" I briefly wondered to myself in midair, as I looked out the window and saw only dense jungle without a single sign of human habitation.) Gerawat, who did indeed keep his promise, took me into his home for three days and introduced me to life in Borneo's

highlands, including the local cuisine, before sending me onward to Ba' Kelalan and arranging for a rendezvous at the airport there.

Donna Labo and **Kim Hoskin**: When I first arrived in Ba' Kelalan, the first Lun Bawang settlement I visited en route to Long Semadoh, I was sent to Donna Labo's homestay. That same morning, I was suddenly taken ill in a dramatic fashion, best left to the reader's imagination, that rendered me utterly useless for about three days. Despite the regrettable circumstances of our first meeting, we got on splendidly, and Donna's place has been my residence of choice whenever I pass through Ba' Kelalan since then. I also had the pleasure of becoming acquainted with Kim Hoskin, a British expatriate and Donna's husband, who had served in the Border Scouts during the Malaysia-Indonesia confrontation. Kim was largely responsible for bringing me up to speed on relevant local and regional history and providing much interesting insight into the local communities.

Patrick Tonny Lakai was one of my first acquaintances in Long Semadoh. He introduced me to the chief, Dennis Yahya Ating, who gave his approval to live and work in the area, and he also provided the first wordlists I collected during my first two weeks in Long Semadoh Rayeh.

Balan Berauk: Meeting Balan was both an accident and perhaps the most important event of my first trip to Borneo. On the advice of Ukab Palong, of Long Semadoh Rayeh, I had walked downriver to the local primary school to attempt to meet the teachers. My timing was poor, and I found no success, but the guard out front, not confident in his English, flagged down Balan, who happened to be passing by on a motorcycle at that exact moment, and asked him to find out what I wanted. Once I explained, Balan immediately invited me to see his home village of Long Tanid, a short distance further downriver, and meet his family. After I met both his brother Pengiran and his parents, he offered to let me stay with him and to help however he could. I soon accepted, and the overwhelming majority of my notes from that summer, as well as many taken in the next two years, came from our evening chats on the veranda of his house, where we would sit and talk language either until I had exhausted my list of questions or until one of us became too tired to continue. Without those many hours we spent together, this dissertation would probably have never happened at all.

Berauk Taie and **Gerit Sinawat**: When I first met Berauk and Gerit, Balan's parents, we could not easily communicate, having no language in common. Nonetheless, for some inexplicable reason, we took a liking to each other and quickly came to regard one another as extended family. Minutes before I set out on the first leg of my return trip home in summer 2017, Gerit told me, by way of Balan, who translated, that she wanted me to return, marry into the tribe, and stay permanently, later going so far as to offer an undeveloped plot of land on which to build a house.

In the summer of 2018, while residing in Long Semadoh Rayeh, I would make the trek to Long Tanid (about 45 minutes or so, taking all applicable jungle shortcuts) once or twice a week to visit them while Balan was away in Kuala Lumpur. Since they spoke no English and I had not yet begun to learn Malay, these many visits helped my fluency in Lun Bawang immensely, and through them we each came to understand the other's world slightly better. Berauk, though physically ailing due to age, had a sharp memory before he tragically lost it to a stroke, and I learned from him many fascinating facets of Lun Bawang history, some integrated into Chapter 2. Perhaps most impressive was that, more than seventy years later, he could still recall perfectly and sing, though understanding not a word of it, a patriotic song that he had been forced to learn during the Japanese occupation of his birthplace of Long Beluyu', one village further downriver, during World War II.

To my sorrow, Berauk passed away in February of 2020; further regrettably, even if I had been able to board a plane the moment I received the news, the amount of time needed to travel to Long Tanid from Honolulu would have made my presence for the burial impossible. I continue to hold out hope that, even in this new world order brought on by the corona scamdemic, I may some day be able to return to see the site of his grave. *Requiescat in pace.*

Singa' Buas: To say that Singa' knows everyone is probably an exaggeration, but not overly much so. Although Singa' was not a language consultant, he was incalculably helpful in many other ways, especially arranging transportation or making new contacts due to his well-connectedness and active involvement in local affairs.

Peter Tadem Buas: I rarely saw Tadem, Singa's youngest brother, in person, but he nonetheless profoundly shaped this dissertation in two ways: he connected me with Joseph Dawat Langub,

from whom I obtained two substantial volumes of transcribed oral literature, and he arranged, on his own initiative, for me to stay with his parents during the summer of 2018.

Buas Tagal and **Mina Taie**, Singa' and Tadem's parents, hosted me in their home in Long Semadoh Rayeh for about two months during summer 2018. Tadem had made the arrangements on his own when I told him that I was returning to Long Semadoh. What he did not tell me was that Mina speaks no English and Buas retains only a small amount from his primary school days. This omission made for a somewhat confusing first encounter, but we soon overcame that awkwardness, and the arrangement turned out to be beneficial in the long run: staying with them put me in a position where I no longer just *wanted* to learn to speak Lun Bawang. I now *needed* to learn it. My acquired fluency in the language is in no small part thanks to their hospitality.

Ricky Ganang and **Jayl Langub**: In addition to the bibliographic entries bearing their names, these two also deserve recognition for answering many other questions along the way. Jayl's aid, in particular, considerably improved the discussion of particles. Although I have had the pleasure of meeting Ricky twice, once in Sipitang in 2018 and once in Lawas at the 2019 Lun Bawang Festival, I fear I cannot say the same for Jayl. I had intended to rectify that omission in the summer of 2020 until the field trip for which he had been helping me to apply for a visa had to be cancelled when Malaysia closed its borders.

Besar Padan and **Samuel Daring**, both of Long Telingan, and **Jonathan Labo**, of Long Semadoh Neseb, all contributed data to what would eventually become Chapters 9 and 10. I must also credit Besar with showing me the entrance to the jungle trail connecting Long Telingan to Long Semadoh Rayeh, a path that saves no small amount of time as opposed to walking along the main road between the villages.

Agong Taie of Long Kerebangan supplied most of the information in Chapter 2 on the Adang settlement's history. **Ganang Dawat** (*requiescat in pace*) of Long Kerebangan, along with some of the village's other elders, supplied data on the rapidly fading Adang dialect.

Buayeh Sinau of Puneng Trusan provided some of the information included in Chapter 2 on the history of the settlement of the upper Trusan River.

Alex Balang: Though we did not spend much time together, Alex, who resides in Long Bawan, was largely responsible for the success of my one-week foray into the highlands on the Indonesian side of the border. He arranged the logistical details of my trip to Long Layu', and, on very little notice, connected me with speakers of the Buduk Kubul and Long Puak dialects in Long Bawan, allowing me to gather lexical data on those dialects immediately before my return flight to Tarakan.

Lewi Gala' Paru and **Aval**: Lewi hosted me at his home in Long Layu' for almost a week and was my first source of data on Lengilu'. He also alerted me to the existence of several other local dialects to seek out. Aval, Lewi's daughter who teaches English at the Long Layu' high school, provided many Lengilu' words. She also connected me with speakers of several other local dialects of the Krayan River by introducing me to the other teachers at the school while the students were busy with exams. Chapter 11 could never have been written without the help of these two.

Sandy Lukas, of Long Tanid, is unique in that she is included neither for data contributed nor for other material support, but for a friendship that developed in summer 2019 after she learned of the presence of a foreigner in the village with whom she could practice her English. One of the lesser-known dangers of fieldwork is boredom. During the summer months, preparations for rice planting are usually in full swing, so most of the able-bodied adults spend the day out working in the fields. In consequence, although I could spend some of the time visiting with the elderly, I often had to pass most of the daylight hours keeping myself occupied alone while waiting for the evening for elicitation—and one can haul only so many books halfway across the world. Sandy, therefore, was a rarity: someone close to my own age with whom I could pass that time simply for friendship's sake—even if I did keep a notebook and pen on me at all times and make ample use of them as the conversation repeatedly switched between Lun Bawang and English.

ABSTRACT

The subject of this dissertation is the Lun Bawang language (also called Lundayeh, and formerly also Murut), and in particular the Kemaloh dialect thereof, spoken principally in highland Borneo in the area near, and on all sides of, the borders dividing Malaysia's Sarawak and Sabah and Indonesia's Kalimantan Utara. The dissertation is based primarily on a combined total of six months of fieldwork, including the author's learning to speak the language fluently, conducted mostly in and around Long Semadoh, on the headwaters of Sarawak's Trusan River. It is supplemented by several additional months of studying locally published collections of transcribed oral literature. On these bases, it presents the most complete description of the language published anywhere to date, divided into three parts.

Part I consists of two chapters. The first, the general introduction, provides necessary and useful background information for understanding the context in which the language is spoken. The second is a short ethnographic sketch of the Lun Bawang people covering a small handful of topics of historical and current interest. Special attention is paid to the dramatic changes they experienced during the mid-twentieth century, beginning shortly before the onset of World War II and intensifying after its conclusion.

Part II, the core of the dissertation, which consists of eight chapters, is a grammatical description of all the major facets of the Lun Bawang language. Chapter 3 treats the language's phonology, with special reference to the problem of diagnosing stress and the evidence used to do so. Chapter 4 discusses the language's several word classes, often difficult to distinguish from one another, and their morphology, with verb morphology being the single largest topic of the chapter. Chapter 5 then treats of phrases smaller than a clause.

Chapter 6, which presents monoclausal constructions, devotes much space to introducing and defining the notion of *voice*, the relationship between thematic roles such as agent and patient and

the syntactic roles that they occupy such as subject, object, and pivot. Voice is of fundamental importance in assembling clauses, as it is connected to word order and agreement patterns, and, due to its role in determining which arguments may be targeted for certain syntactic operations, it will be especially critical in multiclausal constructions, as well. Chapter 7 analyzes Lun Bawang voice in finer detail, concluding that the language has a "symmetrical" voice system, one in which the respective voices do not substantially affect the hierarchical relations between arguments.

Chapter 8 deals with five types of pragmatically marked structures: negation, questions, imperatives, clefting, and topicalization. Chapter 9 then takes up multiclausal constructions, most of which follow a strict principle for the selection of voice. Some of these constructions also illustrate significant generational divides in language use due to the increasing influence of Malay and, to a lesser extent, English among younger generations of speakers. Finally, Chapter 10 discusses a handful of phenomena that do not fit neatly into any of the above categories, including comparisons, modality, negative polarity, free choice items, and scope.

Part III, consisting of a single large chapter, seeks to situate Lun Bawang in its genetic and areal context of some thirty-odd related dialects, the Dayic (variously also called Apo Duat or Apad Uat) languages. An attempt to draw clear linguistic boundaries in the highlands where these dialects are found meets with mixed success. Though several plainly or probably valid genetic groupings can be delineated, with some unusual, perhaps even unique, sound changes identified along the way, the attempt to clarify the picture further is ultimately frustrated by two factors. One is a series of overlapping isoglosses that cut across the few established genetic lines, and the second is the relative conservatism of the dialects on the highlands' geographic periphery. From this murky picture, however, one fact is remarkable: with many Dayic dialects exhibiting manifold and sometimes dramatic innovations, Kemaloh Lun Bawang stands out for its conservatism. Although so many of its sisters and neighbors have developed atypical phonologies and moved toward a restructuring of the voice system, Kemaloh Lun Bawang has stood still by comparison and therefore is the most conservative dialect, not just among the Dayic languages, but anywhere on Borneo outside Sabah.

The appendix presents and comments upon four types of traditional oral literature.

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LIST OF ABBREVIATIONS

ACH	achieved state	IV	instrumental voice	POSS	possessive
AUX	auxiliary	LIG	ligature	PTCL	particle
AV	actor voice	LOC	locative	PV	patient voice
BV	benefactive voice	MID	middle voice	PVT	pivot
CAUSE	cause	MOT	motion	Q	question
COMP	complementizer	NAME	personal name/title	QUANT	quantity
CONJ	conjunctive particle	NARR	narrative particle	QUOT	quotative
CONTR	contrastive	NEC	modal necessity	RECIP	reciprocal
DIST	distal	NEG	negation	REDUP	reduplication
DU	dual	OBL	oblique	REFL	reflexive
EXCL	exclusive	PAN	Proto-Austronesian	REL	relativizer
GEN	genitive	PAUC	paucal	REM	remote
EMPH	emphatic particle	PDAY	Proto-Dayic	SG	singular
IMPER	imperative	PFV	perfective aspect	SPEC	specific
INAN	inanimate motion	POLAR	polar question	STAT	stative
INCL	inclusive	PL	plural	SUB	subordinator
INDEF	indefinite pronoun	PMP	Proto-Malayo-Polynesian	TOP	topicalizer
INST	instrument	POSB	modal possibility	VOC	vocative
INTRANS	intransitive				

PRACTICAL ORTHOGRAPHY

The orthographic conventions used in this work are based on a system already in common use, though in practice with much variation. The schema below shows the correspondence between phonemes and graphemes that will be employed in this dissertation. Unless demarcated by square brackets, as is the custom for transcriptions using the International Phonetic Alphabet, Lun Bawang words in this dissertation follow these spelling conventions.

Orthography	IPA	Orthography	IPA
b	/b/	p	/p/
bp	/b͡pʰ/	r	/r/
c	/d͡tʃʰ/	s	/s/
d	/d/	t	/t̪/
g	/g/	w	/w/
gk	/g͡kʰ/	y	/j/
h	/h/	'	/ʔ/
j	/d͡ʑ/	a	/a/
k	/k/	e	/ə/
l	/l/	é	/e/
m	/m/	i	/i/
n	/n/	o	/o/
ng	/ŋ/	u	/u/

Nota bene: In the sporadic discussion of Lun Bawang (or other Dayic) dialects *other than* Kemaloh, orthographic <c> represents a plain [t͡ʃ]; even within the Kemaloh dialect, lenition of [d͡tʃʰ] to [t͡ʃ] is sporadically observed among some speakers.

Part I

Background

CHAPTER 1: GENERAL INTRODUCTION

1.1. INTRODUCTION

Lun Bawang (ISO: lnd) is an Austronesian language of the interior of the island of Borneo spoken on both sides of the Malaysia-Indonesia border. Data from 2007 suggest that the language has approximately 47,500 speakers across all dialects on both sides of the border, with roughly equal numbers on either side (Eberhard *et al.* 2019), while Coluzzi (2010) estimates that the figure is closer to 62,000. The majority of speakers on the Malaysian side live in Sarawak's Limbang Division at the northeast end of the state, with a smaller population found in Sabah's Sipitang and Tenom Districts, at the state's southwest edge. Most of those on the Indonesian side reside in the Nunukan and Malinau Regencies, in the northernmost reaches of the province of Kalimantan Utara (North Kalimantan). A small number also live in Brunei's Temburong District.

Though substantial diaspora populations live in some of Borneo's coastal towns, Lun Bawang and its relatives are most widely spoken in Borneo's jungle-covered highlands, where they originated prior to downriver migrations. The most widely spoken Lun Bawang variety is the Kemaloh dialect, so called for the Kemaloh River, a tributary of the Krayan River in the highlands of Indonesian Borneo, where it originated and whence it spread into Malaysia. The primarily Kemaloh Lun Bawang-speaking regions of highland Borneo are outlined on the map in Figure 1.1; this area consists mainly of Sabah's Long Pa' Sia', Sarawak's Long Semadoh, Long Luping, and Long Sukang areas, and Kalimantan's Long Umung area. This area includes nearly the entire Lun Bawang-speaking population of Sabah, as well as a majority of the highland Sarawakian Lun Bawang, many of whom are the descendants of migrants from the Kemaloh River area. In the parts of Kalimantan's highlands *outside* the properly Kemaloh-speaking area, where the dialects, though related, are far greater in number and more diverse in character, the Kemaloh dialect is in wide use as a *lingua franca* to compensate for the reduced mutual intelligibility between local varieties. (Cf. §11.2.1 for a detailed overview of the geographic distribution of Lun Bawang and related dialects.)

FIGURE 1.1. LOCATION OF KEMALOH LUN BAWANG
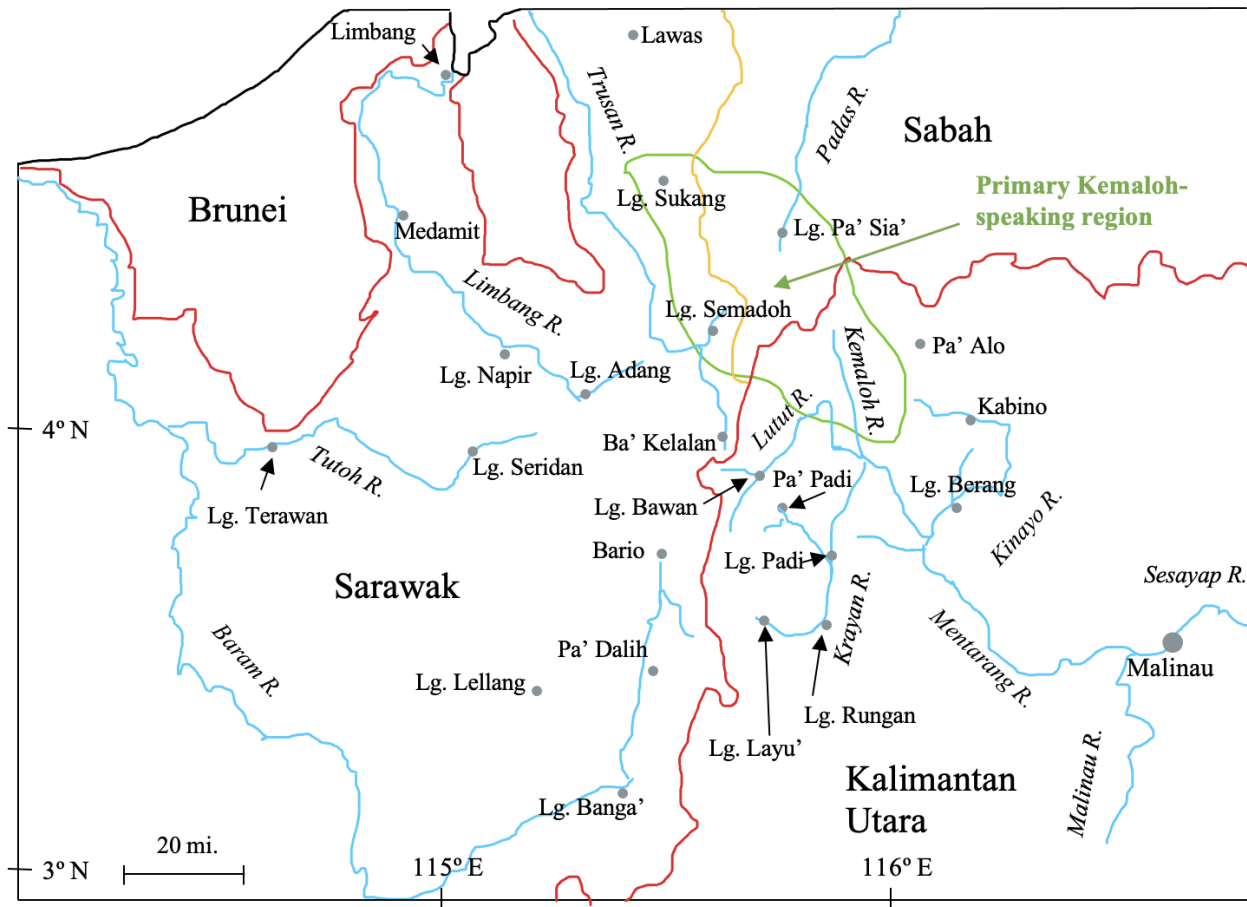
1.2. LINGUISTIC AFFILIATION

In broad terms, Kemaloh Lun Bawang plainly belongs within the Dayic language group, normally regarded as one of four primary branches of North Sarawak, a low-level subset of the Malayo-Polynesian branch of the Austronesian language family (Blust 2010, *inter alia*). The North Sarawak group's distinguishing characteristic is the presence of two distinct sets of reflexes of the Proto-Austronesian voiced obstruents, one a series of plain voiced obstruents and the other a series of true voiced aspirated stops (cf. §§3.1.1.1, 11.2.3.1). This family is subdivided into four primary

branches: Bintulu, Berawan-Lower Baram, Kenyah, and Dayic.[1] Dayic itself is clearly definable by a handful of phonological innovations presented in §11.2.3.

Within the Dayic languages, consisting of probably slightly more than 30 dialects, however, the picture is not at all clear. Five languages are commonly ascribed to the group today (see, e.g. Eberhard *et al.* (2019), *inter alia*): Lengilu', Sa'ban, Tring, Kelabit, and Lun Bawang/Lundayeh,[2] some of which display tremendous dialectal diversity. For many reasons, to be discussed in due time (cf. especially Chapter 11), subgrouping criteria that are valid beyond doubt are difficult to find, and the possibility is not to be excluded that the languages within the Dayic group may in fact be closer in nature to a linkage or dialect chain than to a group of genetically discrete languages. In particular, whether the many dialects collectively called Lun Bawang/Lundayeh can be demonstrated to form a single genetic unit is not at all obvious. This particular problem is the subject of §11.5.5.

1.3. NAME

The name *Lun Bawang* can be variously translated as 'people of the land,' 'people of the place,' or 'people of the village' (Langub 1987). Though it is the officially recognized term used for the people and their language within Sarawak, a variety of names have historically been and still are employed in different political jurisdictions. In particular, the name *Lundayeh*, alternately spelled *Lun Dayeh*, is used in Sabah and Kalimantan. A brief historical overview of the names used and how the current situation came to be is therefore appropriate.

The oldest name known to be widely used in reference to the Lun Bawang is *Murut*, an exonym of uncertain origin. Tom Harrisson (1959a) claims that it means 'hill' (and thus the "Muruts" are

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[1]Though the validity of the traditional North Sarawak group is not beyond all doubt, as similar phenomena are observed in other languages of the North Borneo group, of which North Sarawak is a subset, Blust (p.c.) has unearthed additional lexical evidence suggesting, at minimum, a link between Dayic and Berawan-Lower Baram.

[2]Sellato (2009) contains a handful of other names that he notes are no longer used, some of which, including *Paril* and *Wa' Turun*, may have been the names of groups that no longer exist as ethnolinguistically distinct entities, having apparently been assimilated by their closely related neighbors.

the "hill people") but provides no further explanation or proposed language of origin. Several other theories of its origin have been proposed, the most plausible of which is that it was first used in reference to the Lun Bawang living in the valley around the Adang River, a tributary of the upper Limbang in Sarawak, because they were located near Mt. Murud, Sarawak's highest mountain (Langub 1987).[3] Among other folk etymologies, perhaps the next most popular is the hypothesis that the name is from the Lun Bawang word *murut* 'pay a bride price' (from root *purut*), in reference to customary payment made from a man's family to the parents of his bride. Langub (1987) dismisses this hypothesis as unlikely, since, given that *Murut* is an exonym, such an origin would have required the outsiders who coined it to have a very close knowledge of Lun Bawang custom acquired from prolonged interaction.

To complicate matters further, the term *Murut* is also used to refer to a set of ethnic groups in Sabah that is only somewhat distantly related to the Lun Bawang and linguistically quite different. Because small populations of Sabahan Murut are found in Sarawak and of Lun Bawang in Sabah, the labeling of both as *Murut* has been great cause for confusion. This confusion doubtless ranks among the reasons why the term *Murut* is today used only rarely in reference to the Lun Bawang.

In addition to the *Murut* exonym, the Lun Bawang have made use of a great many terms for self-reference, and only recently have some of these, traditionally used to label certain subsets of the people in opposition to others, emerged to characterize the people as a whole. These labels occurred in contrasting pairs: *Lun Dayeh* vs. *Lun Lod*, *Lun Tana' Luun* vs. *Lun Ba'*, and *Lun Bawang* vs. *sakai* and *lun nepura'*, the last two of which terms are simple descriptors without any proper naming significance.

The first opposition, *Lun Dayeh* vs. *Lun Lod*, was historically operative primarily within Sarawak (Langub 1987). The term *Lun Dayeh*, meaning 'upriver people' or 'interior people,'

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[3] On this account, the name's origin is geographic, akin to the name for the Lun Bawang's sister group, the *Kelabit*, which is reportedly a corruption of *Pa' Labid*, the name of the river along which lived the first Kelabits to encounter Sarawakian government officials (Harrisson 1959a); if so, then the two names even share the same phonological change, the devoicing of a final /d/ from their sources.

was used to identify those people living in the highland areas of Sabah, Kalimantan, and Sarawak. In Sarawak, however, a substantial population of the same people is also to be found living in lowland areas, historically called *Lun Lod* 'downriver people.' Within Sarawak, the term *Lun Dayeh* refers to those who lived on the mid-to-upper Trusan River and its tributaries, in particular in the areas of Long Sukang, Long Luping, Long Semadoh, and Ba' Kelalan. The *Lun Lod* are the descendants of those who settled the areas on the Lawas, Limbang, and lower Trusan Rivers, as well as in Brunei, some 300 years ago. More recent migrants to the lowland areas are called not *Lun Lod*, but *lun nepura'* 'migrated people,' or even *Lun Dayeh*, reflecting their origin rather than their present circumstances (Langub 1987).

The second opposition is between *Lun Tana' Luun* 'people of the land above' and *Lun Ba'* 'people of the wet fields.' These terms were used to distinguish between the two types of rice agriculture, the Lun Bawang's primary means of subsistence. The former term refers to those who grew hill rice, rotating their fields year after year, and the latter refers to those who practiced wet rice agriculture, a rarity on the island of Borneo. Historically, the *Lun Ba'* were more geographically restricted, found only in Sarawak's Ba' Kelalan region and Kalimantan's Bawan-Belawit valley (Langub 1987). The term *Lun Tana' Luun* includes the *Lun Dayeh* living elsewhere in highland Kalimantan, Sarawak, and Sabah, along with some of the *Lun Lod*, as well. These terms, though still known and retaining their historical significance, have largely fallen out of use since the 1960s with the decision of many of the highland *Lun Tana' Luun* to switch to the wet rice farming methods formerly distinctive of the *Lun Ba'*.

The third opposition is between *Lun Bawang* 'people of the land' and the labels *sakai* 'visitors' and *lun nepura'* 'migrated people.' These terms are used for the purpose of distinguishing the original inhabitants of a particular area from visitors and immigrants.

While *Lun Dayeh* is still used in Sabah and Kalimantan, and now usually written *Lundayeh*, the term *Lun Bawang* was adopted in Sarawak in the late 20th century. Disagreements over the terminology still persist among some of the denizens of the various jurisdictions. The Sarawakian Lun Bawang, when seeking a single label that could subsume the whole people, discarded *Lun*

Dayeh 'upriver people' because it was seen to exclude the downriver-dwelling *Lun Lod*, and they instead chose to call themselves *Lun Bawang* 'people of the land' to emphasize their being among the original inhabitants of Borneo (Langub 1987; Agong Taie, p.c. [10 June 2018]). Those outside Sarawak retained the label *Lun Dayeh*, respelling it *Lundayeh*, because, in their view, *Lun Bawang* is too broad a term, applicable to all the native peoples of Borneo, but *Lun Dayeh* pointed them out more precisely since they are one of few ethnic groups that can trace their proximate origins to the deep interior of the island (Ricky Ganang, p.c. [29 June 2018]). Differences of labeling notwithstanding, however, they recognize themselves as belonging to one people and speaking variants of one language.

For the sake of consistency, since the research underlying this dissertation was conducted predominantly in Sarawak, the term *Lun Bawang* is used throughout. In reference specifically to people or speech varieties from outside Sarawak, *Lundayeh* may be used instead.

1.4. BRIEF HISTORY OF RESEARCH

The presently existing body of literature on the Lun Bawang language, though somewhat limited in scope, spans more than a century and a half. The earliest known records of the language are found in the comparative vocabularies published by Spenser St. John (1862) and then by Claude de Crespigny (1872) ten years later. After another forty years, a small wordlist was included in J. C. Moulton *et al.*'s "Expedition to Mount Batu Lawi" (1912). This publication was followed a year later by Sidney Ray's seminal volume "The Languages of Borneo" (1913) in the inaugural edition of the *Sarawak Museum Journal*, which remains to this day the home of much of the extant literature on Lun Bawang.

With this initial inroad made into scholarship on the languages of Borneo, the body of research on Lun Bawang (then commonly called "Murut") began to grow in earnest twenty years later, starting with wordlists collected by F. H. Pollard (1933; 1935); the latter publication made particular note of the language's similarity to Kelabit. Some years later appeared two back-to-back publications on the subject in the *Sarawak Museum Journal* (Southwell 1949; Bolang and Harrisson 1949). Both of these, like Pollard (1935), recognized the close relationship between Lun Bawang

and Kelabit, with Southwell (1949) going so far as to classify the latter as a dialect of the former, and Bolang and Harrisson (1949) also noted that Sa'ban appeared to be rather closely related to the two. Both articles also clearly stated, as well, that despite the common name, the Sarawakian "Murut" (Lun Bawang) and the Sabahan Murut (Tagal, e.g.) are clearly distinct peoples, not closely related, and Bolang and Harrisson provided linguistic evidence for this fact. The Southwell (1949) article is also noteworthy for being the first to attempt any description of the language's grammar beyond simple wordlists; of particular interest is the inclusion of verb paradigms and pronoun cases, along with a few illustrative sentences. Although somewhat hampered by its imposition of Indo-European (and particularly Latin) linguistic categories on a language where they simply do not apply, many of Southwell's basic observations remain valid even today.

Ten years later came the first serious attempt, by Shirley Lees (1959), to analyze the sound system of Lun Bawang. In addition, Lees was also the first to propose a practical orthography for Lun Bawang, and most of her suggestions would eventually become part of the now *de facto* standard for spelling. Six years later, Samuel Labo Pur (1965) published the first Lun Bawang dictionary, 101 pages in length and including a small phrasebook.

The year 1970 was a particularly prolific one for Lun Bawang research, with no fewer than five publications in the *Sarawak Museum Journal* alone. Two of these, by Jay Crain (1970a; 1970c), are principally anthropological, dealing with family and longhouse life on the Mengalong River in Sabah, but still notable for their inclusion of relevant terminology. The other three demonstrate significant advances in scholarship on the Lun Bawang language. One, by anthropologist James Deegan (1970) contains transcriptions and translations of ancient chants once used to summon spirits immediately prior to the rice harvest. Although including no linguistic analysis, as it is beside the point of the writing, it nonetheless provides a record of types of language use that have otherwise largely faded from living memory due to disuse. Another of these articles, exploring children's acquisition of prepositions (Garman *et al.* 1970), is the only known study of language acquisition conducted on Lun Bawang. The last, by Beatrice Clayre (1970), surveys the verbal systems of several languages of Borneo and contains the first coherent description of the complex

interactions between Lun Bawang verb affixes, pronoun forms, and word order.

Following that prolific year, Lun Bawang language research accelerated. The next year a second dictionary, slightly longer than the first and trilingual rather than bilingual, was published (Padan 1971). Another year later, Deegan, this time with Lun Bawang co-author Robin Usad, published a transcription and translation of the Lun Bawang folktale of Upai Kasan (Deegan and Usad 1972). The text and translation portion of the article run slightly more than twenty pages in length, and, once again, although it includes no linguistic analysis, their effort has resulted in the preservation of forms of speech otherwise no longer in common use among the people.

In addition to the publication of texts and dictionaries, exploration of the sound system continued, with Clayre's (1972) comparative study of Lun Bawang and Sa'ban, her first attempt to present a rigorous case for a close relationship between the two languages. Shortly afterward, Robert Blust (1974b) completed his doctoral dissertation. Based on data from several languages across Sarawak, including approximately thirty pages of notes on Lun Bawang taken in a 1971 consultation with Dr. Bob Baru' Langub, of Long Semadoh, Blust proposed a hypothesis to explain the presence of the typologically unusual voiced aspirated stop consonants in some of the Dayic dialects, including both Bario Kelabit and Kemaloh Lun Bawang. (Blust 2006 would eventually replace this original hypothesis.) The same Kemaloh dialect was also used several years later in the *Bala Luk Do'*, a partial Bible translation completed at Long Semadoh with the assistance of several local residents (Belcher 1982). At more than 1300 pages in length, it remains to this day the single largest work written entirely in the Lun Bawang language, albeit of limited value to linguists due to the tremendous influence from translators' native English syntax.

The following year saw the first attempt in several decades at a sketch grammar of the language (Omar 1983). Although brief, it is rather more detailed in some respects than Southwell (1949), and its attempt to describe the language on its own terms rather than imposing the categories of Latin grammar on it constitute a helpful improvement. Nonetheless, other authors have credibly challenged a great many of its claims. Challengers include especially Blust (2016) on the phonemic inventory and, indirectly, sources such as Ganang *et al.* (2008) on the morphology and proper

pronunciation of words. As such, much of the grammatical work remains in need of further study.

One more grammatical advance occurred when Clayre (1991) returned to the subject of the Lun Bawang voice system, providing what is likely still the most thorough published account of the phenomena involved. This account details the language's three voices and their interactions with pronoun forms, word order, and the use of case-marking particles. This complex system lies at the heart of the morphosyntax of many western Austronesian languages; therefore, though much descriptive work on the grammar remains to be done, Clayre's contribution represents a major step in that direction. Charlotte Hemmings (p.c.) has done some further work on morphosyntax, albeit on the dialect of Ba' Kelalan (herein called *Northern Ba'*), which differs somewhat from the focus of Clayre's work; as of this writing, the results of her study await publication.

One other writing on the structure of the language merits mention: Blusts's (2016) work on the phonology of Kelabit and Lun Bawang. Blust here provides the most up-to-date analysis of the language's sound system yet published, and he devotes special attention to the aforementioned voiced aspirated stop consonants, providing several arguments to demonstrate, *contra* Omar (1983), that these unusual phenomena are true phonemes and not consonant clusters.

Four other recent works deserve special consideration for their contributions to documenting the language, each of which involved the significant, and in some cases exclusive, efforts of Lun Bawang speakers themselves. The first is Ganang *et al.* (2008), a dictionary compiled over the course of approximately fifteen years that is, at 476 pages in length, by far the most complete one yet published. The first author, Ricky Ganang, of Sipitang, Sabah, is himself a Lundayeh, who worked with two foreign researchers, Jay B. Crain and Vicki Pearson-Rounds, to complete the project. The other three volumes are collections of transcribed oral literature produced by Lun Bawang speakers who wished to have a record of the old stories and forms of language that are now fading from their people's collective memory. Two of these, consisting of almost 400 total pages of stories, were published by Joseph Dawat Langub (2014a,b), formerly of Radio TV Malaysia in Limbang, Sarawak. The third, published even more recently, is the work of Malinau Regent Dr. Yansen Tipa Padan and, again, Ricky Ganang (2018). The work of these two men consists of

166 pages of introductory material, written in Indonesian, on cultural and historical matters. The remaining 400 pages consist of transcriptions of diverse genera of oral literature, from stories to laments, lullabies, chants and other forms of poetry, few, if any, of which are known to today's young generations. Precisely because so few young speakers today are aware of these traditional forms of literature, their preservation in these volumes, made all the more impressive by the fact that none of these authors is a trained linguist, is one of the most important steps that has yet been taken in terms of documenting the language.

What is still lacking, on the other hand, is a grammar of the language. The existing descriptions are simple sketches, the longest (and most controversial) of which (Omar 1983) barely exceeds twenty pages in length. Supplying this element of documenting the language is the primary aim of this dissertation.

1.5. SOCIOLINGUISTIC SITUATION

1.5.1 MULTILINGUALISM

All Kemaloh Lun Bawang speakers heretofore known to the author are at least bilingual. On the local level, many Kemaloh speakers are in fact native speakers of a different Lun Bawang dialect, or even of a separate Dayic language such as Lengilu', who make use of the Kemaloh dialect as a *lingua franca* due to the relatively low mutual intelligibility of many Dayic dialects. Secondly, most, if not all, Lun Bawang speakers also speak Malay or Indonesian, the medium of educational instruction and national *lingua franca* in their respective countries. Additionally, especially in Sarawak, a substantial number of fluent second-language speakers of English remain. This group consists mainly of those educated between the end of the Second World War, when the first schools were built in the highlands, and the switch from English to Malay as the medium of education following Sarawak's entry into Malaysia. Since the switch, although English is still taught as a second language, the number of fluent speakers has decreased. What effect, if any, recent moves by the government to emphasize English education more heavily will have remains to be seen.

Although most speakers, if not all, are multilingual, within the highland villages that are home to the language, Lun Bawang is used almost exclusively and in nearly all domains, except for education. In spite, therefore, of the substantial body of Malay/Indonesian loanwords coming into the language, largely a consequence of children's intense exposure thereto five days a week, the language remains quite stable and does not appear to be in any immediate danger of shift. The relative dearth of locally residing outsiders who do not speak the language doubtless aids this stability.

1.5.2 VIABILITY

As discussed immediately above, the linguistic situation in the highlands appears stable at present. Among the Lun Bawang diaspora, on the other hand, loss of the language is common. Frequent destinations of speakers who leave the highlands include Kuala Lumpur; Sarawak's Kuching, Miri, and Lawas; Sabah's Sipitang and Kota Kinabalu; and Kalimantan Utara's Malinau and Kalimantan Timur's Samarinda. In some of these locales, especially Lawas, the Lun Bawang-speaking population is sufficiently large that the language remains in regular use among its speakers and is transmitted to children whose parents are both Lun Bawang. In the case of mixed marriages, however, transmission of the language to children is rare, as is transmission even in unmixed marriages in towns where the Lun Bawang-speaking population is relatively small.

1.5.3 CHANGING PATTERNS OF LANGUAGE USE

Although the continuity of the language is not immediately threatened, its use is nonetheless undergoing significant changes, due in no small part to contact with Malay and English. The influence of these languages extends beyond vocabulary alone, touching the morphosyntax at several points. For example, though traditional Lun Bawang clauses prefer predicate-initiality, word order among younger speakers is shifting toward mirroring the subject-verb-object order common in both Malay and English. Perhaps nowhere is the contrast between traditional and innovative language use more evident than in strategies for combining clauses (cf. Chapter 9, and especially

§9.5). Another ongoing change among new generations of speakers, this one apparently not due to contact, involves a restructuring of verbal voice morphology (cf. §4.4.2, and especially §4.4.2.2).

In every such case, the author has elected to include both the traditional and the new pattern of usage. This decision may be controversial in some circles; many speakers, for instance, have a very strong negative view of the new forms of verbal morphology in use among today's youth. The aim of this dissertation, however, is not to impose a norm, but to describe the language as its speakers actually use it and to leave the prescription of any norms in the hands of those who are better suited to make such decisions. Nonetheless, where such variation exists, especially in the domain of syntax, the grammar devotes somewhat more space to the traditional forms of usage. This approach is taken in order to provide an adequate record of these more distinctively—perhaps, in some cases, even uniquely—Lun Bawang forms of speech before their impending replacement by borrowed constructions and subsequent loss from living memory. (See again §9.5 for one of the best such examples.)

1.6. DATA COLLECTION

This dissertation relies heavily on original data collected during a combined total of approximately 6 months spent in highland Borneo during the summers of 2017–2019. The data are in the form of approximately 400 pages of handwritten notes across four notebooks. Data in three were collected primarily at Long Semadoh and secondarily at Ba' Kelalan in Sarawak, with a smattering of details from other locations. The fourth book contains data on the dialects of the Krayan and Lutut River systems, collected primarily at Long Layu' and secondarily at Long Bawan in Kalimantan during late May 2019. Digitized versions of these notes are available in the collection *CM1* from the University of Hawai'i's Kaipuleohone archive.[4] In addition to the four notebooks, the archive collection also contains a six-minute audio recording of a short story.

As error is almost inevitable, especially in the early stages of data collection, some observations in these notebooks may have been corrected in later pages or books without the originals'

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[4]These field notebooks are cited throughout this work as FN1, FN2, and FN3, corresponding, respectively, to archive items CM1-001, CM1-002, and CM1-003.

necessarily having being edited. Therefore, in the event of a conflict between portions of the field notes, the more recent source is to be presumed correct. In the event of any discrepancies between the field notes and this dissertation, the dissertation is correct.

Further data collection had been planned for a period of approximately six months from May to November 2020 in Sarawak. The Malaysian government's closure of the borders and implementation of a movement control order in the spring of that year, however, made the timely execution of any further *in situ* research impossible. This circumstance forced the author to instead mine currently existing sources for useful data. As a consequence, this dissertation, especially the chapters dealing with morphosyntax, relies very heavily on data drawn from collections of oral literature, foremost among them Langub (2014a), and from an edited digital version of the Lun Bawang dictionary of Ganang *et al.* (2008) sent directly to the author by Jay Crain.

1.7. A NOTE ON ORTHOGRAPHY

The practical orthography used to write the Lun Bawang language throughout this work is given in the dissertation's front matter. It largely follows the orthography used in the *Bala Luk Do'* (1982), developed from the initial recommendations of Lees (1959), which is the *de facto* standard in use today, albeit with considerable variation in practice. For instance, final *-h* and glottal stop are commonly omitted; <é> (for the phoneme /e/) is often written as a plain <e>; and /ə/, normally written <e>, is frequently written as <a>, especially in penultimate syllables. Inasmuch as possible, spellings in this dissertation aim for the greatest degree of phonetic accuracy possible while still remaining faithful to the commonly accepted conventions. One idiosyncrasy that is retained is the orthographic distinction between *luun* 'above, upon' and *lun* 'person, people;' this pair of words is the only one in the language distinguished by vowel length, and, although a uniform spelling would not create any tremendous confusion, as context would easily disambiguate, the convention has always been to spell them as here given.

At times the orthography of other written sources had been, out of necessity, edited for presentation herein. Most of the time, the edits are minor, such as adjusting for some of the variation described in the previous paragraph. Another frequent orthographic edit made to the sources is

the spelling out of full forms that are often phonologically elided. For instance, the demonstratives *inih* 'this' and *ineh* 'that' are commonly reduced to *nih* and *neh*, and they are even written as such at times in the source material. Here, however, they are always spelled out in full. Likewise, especially for the purpose of syntactic analysis, certain phonological sandhi processes are not represented orthographically; for instance, the particles *peh* and *em* are frequently run together as *pem* and even spelled thus in some sources, but they are here always written separately and in full for maximal clarity.

Both Padan and Ganang (2018) and the published version of Ganang *et al.* (2008) employ a different orthography altogether, and in consequence, major revisions to the spellings therein were sometimes necessary in order to make them consistent with the rest of the dissertation. Ricky Ganang has a number of reservations about the conventions of the standard orthography, and his critiques are not without merit. This dissertation does not, however, wish to presume to weigh in on the relative merits of competing orthographic conventions, nor would an attempt to reform from the outside a convention already in widespread use be wise. The overriding concern in adopting the *de facto* standard for this dissertation is to make the content maximally useful to as many people as possible, which, as a practical matter, requires employing, whatever the merits (or otherwise) of its design, the orthography known to and used by the greatest number of people. Should the Lun Bawang themselves decide *en masse* to alter their spelling conventions, the author's future work will follow accordingly.

CHAPTER 2: THE LUN BAWANG

2.1. INTRODUCTION

The Lun Bawang are an agricultural people of highland Borneo, closely related to the Kelabit, Lengilu', Tring, and Sa'ban. They have inhabited the mountainous jungles of the island's interior for many centuries, only more recently expanding into lowland areas. Once headhunters, their way of life has changed dramatically over the course of the last century, with many ancient traditions being lost to history and new social institutions, most prominently the Borneo Evangelical Mission, taking their place. Along with these social changes have come linguistic changes, most notably the loss of old literary forms, and of much vocabulary along with them, and the increasing influence of Malay and Indonesian through the respective countries' education systems.

In order to best set the context in which Lun Bawang is spoken, this chapter, drawing on a wide variety of published materials as well as the author's own observations and interviews with local sources, provides a brief ethnographic sketch focused on the inhabitants of the Kemaloh-speaking regions. Inevitably, however, due to their common origin and close relationship, many of the observations made herein will be applicable to other groups using the name Lun Bawang, as well as to their relatives, the Kelabit, Lengilu', Tring, and Sa'ban. For a fuller treatment of Lun Bawang history and culture than can be provided here, the reader may wish to consult the sources detailed in §2.2.

2.2. SOURCES AND FURTHER READING

The following sections are a mere overview, since to do full justice to the subject of Lun Bawang history and culture would require a second dissertation. The curious reader should consult the sources named in this section—the most up-to-date and comprehensive, and therefore herein the most cited, of which are produced by Lun Bawang authors— for more information.

The earliest ethnographic sketches of the Lun Bawang are those of Ricketts (1963 [1901]) and Pollard (1933). Pollard (1935) supplements the two, providing comparisons between the Lun Bawang and Kelabits. Harrisson (1959a, 1967) makes small contributions here as well. Datan (1989) is a more recent ethnography, written from a Lun Bawang perspective. The works of Crain (1970a,b,c) discuss aspects of life in Sabahan Lundayeh communities in the postwar era, with emphasis on the longhouse, the family, and marriage practices. Schneeberger (1979) also discusses longhouse types and traditional burial practices. Sellato (1997, 2009) include topics such as migration, social organization, and rice agriculture. The most complete ethnography to date is probably Deegan (1973). Readers proficient in Malay/Indonesian may wish to consult Tuie (1995), a more recent ethnographic work based on the Lun Bawang author's firsthand knoweldge, and of much more substantial length than most of the others. This volume treats of subjects including history, music, traditions surrounding death, economic activities, marriage customs, and traditional handicrafts, among others. Padan and Ganang (2018), another Lun Bawang source, though principally a collection of transcriptions of oral literature, also treats some of these subjects and describes in some detail the different varieties of oral literature, and it may therefore be of interest to readers proficient in Malay/Indonesian.

A few works focus on very specific subjects: a recent study by Simeon *et al.* (2017) treats forms of music and dance. Munan (1993) discusses in some depth the various forms of valuable beads used as ornamentation, primarily by women. Deegan (1970) provides some rare insight into traditional animistic Lun Bawang beliefs and practices.

Two accounts are available detailing the punitive expedition to the upper Trusan launched by the Rajah Brooke against Ukung Kelupan and his brother Dayung in 1900. The contemporary account, Ricketts (1900), published in the *Sarawak Gazette*, tells the government's side of the story, and a more recent account, Datan (2015), tells the story from the Lun Bawang side.

For the efforts of western missionaries in converting the Lun Bawang to Protestantism in the early-to-mid 20th century, see Lees (1979) and Southwell (1999), both firsthand accounts. The former, however, contains some basic factual errors and should be used with caution.

The 20th century found the Lun Bawang unwittingly caught up in multiple international wars. For their guerrilla involvement in World War II, see especially Harrisson (1959b) and Heimann (2007). For their lesser-known involvement in the Indonesia-Malaysia confrontation, including their involvement in the Sarawak Border Scouts, see the relevant portions of the firsthand accounts in Hoskin (2020).

For Lun Bawang oral literature, four major sources, all Lun Bawang-published, are available: three of them, Langub (2014a,b) and Padan and Ganang (2018), contain a total of around 800 pages of transcriptions. They are, however, entirely in Lun Bawang, untranslated, and therefore probably not accessible to the casual reader. The fourth, Tuie (1990), though shorter, is written in Malay, and presents a sample of folk tales that may provide several insights into traditional Lun Bawang beliefs and values. Tuie (1995) might be mentioned parenthetically here, as well, since it contains a small corpus in addition to its primary focus, the ethnography.

2.3. Origins and Migrations

2.3.1 Remote Origins

That the Lun Bawang expanded most recently in the highlands of present-day Indonesian Borneo is certain. However, their origins prior to arrival in the highlands are somewhat hazier, with available evidence suggesting two basic possibilities. The first of the two possibilities relies on the consensus that the Dayic languages, a group including Lun Bawang, is one of four primary branches of a North Sarawak group, its sisters being Kenyah, Bintulu, and Berawan-Lower Baram.[1] These other three branches are concentrated primarily around the middle and lower Baram River

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[1]This dissertation will not undertake a detailed assessment of the validity of the North Sarawak group, but two points merit noting: First, its validity may be doubted since the condition that enabled the development of the voiced aspirates, the group's defining characteristic, was already present in Proto-North Borneo. (Cf. §11.2.3.1, *infra*; Smith 2017.) Secondly, on the other hand, Blust (p.c.) has found a handful of lexical replacement innovations in basic vocabulary that Dayic shares exclusively with Kenyah and Berawan-Lower Baram. If these are in fact innovations and not undetected retentions or the product of undetected borrowing, the latter of which is unlikely with basic vocabulary, then the North Sarawak account is still likely to be, if not wholly correct, at least quite close to the truth.

in the northwest of Sarawak. The simplest conclusion to which this genetic classification leads is therefore that the Dayic languages likely reached the highlands they now occupy by migration up the Baram River, first reaching the Kelabit Plateau, with large segments of the population then moving across the border ridge into the headwaters of the Krayan and Lutut Rivers and dispersing from there.

FIGURE 2.1. THE HEART OF BORNEO (REPRODUCED FROM FIGURE 1.1)
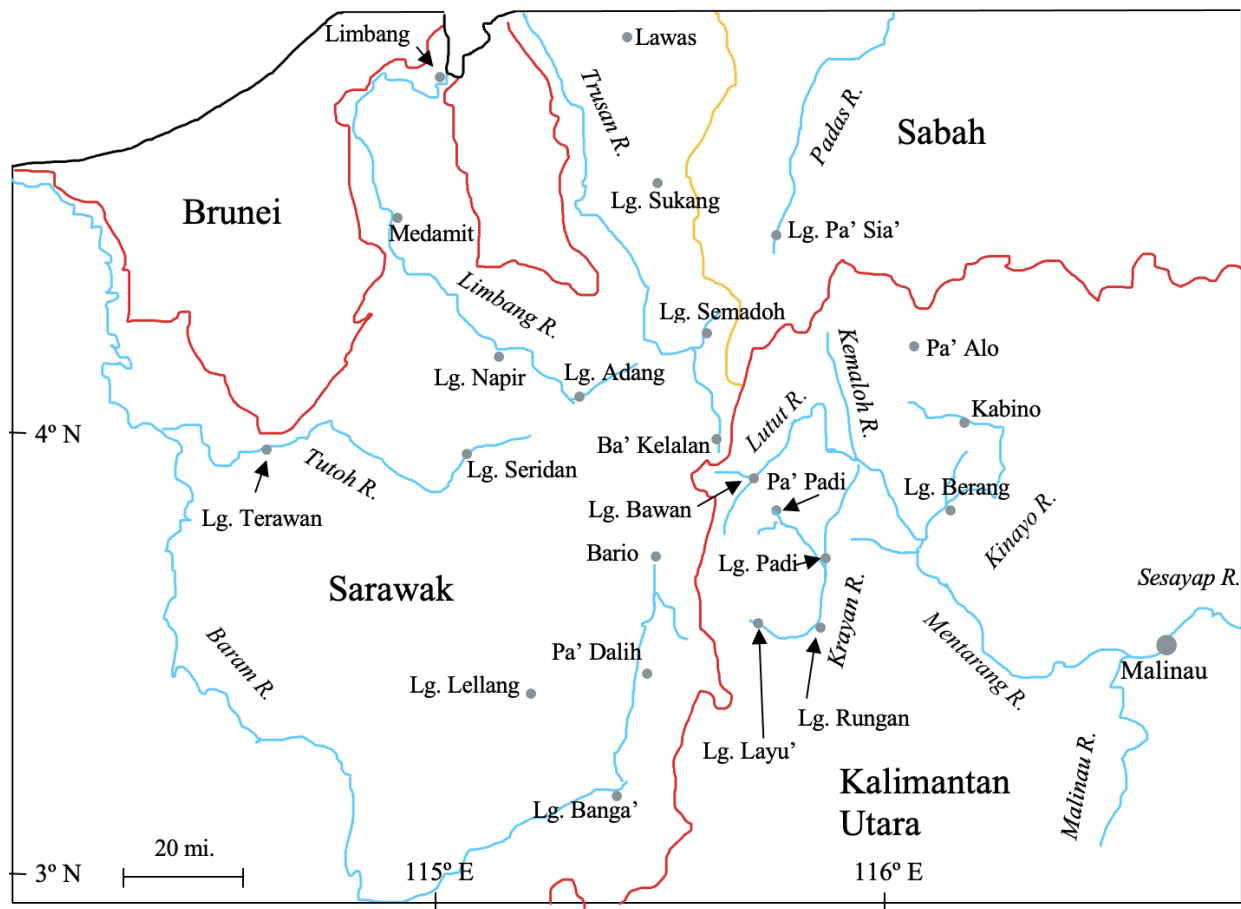
The second possibility, based on the consensus among historically knowledgeable highland sources, is that the Dayic languages originated from the Seputuk River (whence the name "Putuk" sometimes used for the Dayic-speaking peoples), a short distance down the Sesayap River from Malinau in Kalimantan. Sellato (1997, 2009) reports that multiple independent and geographically distant sources attest the following history:

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The early Dayic peoples lived alongside the Tidung, a Murut people, in the Seputuk area a short distance down the Sesayap from Malinau. At some point, an Islamic people whose identity is uncertain conquered the region, and the ancestral Dayic speakers retreated upriver to Long Kebiran, where another Murutic group, the Abai, lived.[2] From there, they moved up the Mentarang, stopping first at Long Berang, then moving westward to the confluence of the Beruan with the Krayan. From there, some went up the Kemaloh, while the rest pushed westward into the Krayan and Lutut River systems and populated the highlands, with speakers from the Kemaloh and Krayan-Lutut areas later pushing northward and westward into Sabah and Sarawak.

This account of inland movement from Seputuk in response to attacks is preserved, albeit with some clearly fictionalized details, in a local legend, retold in Padan and Ganang (2018). The early Dayic peoples were said to have originally been a group of Chinese immigrants living near the Seputuk River, down the Sesayap from Malinau. These people were traders who acquired local goods, took them back to China, and returned to Seputuk with new material acquisitions they had made in exchange. Their wealth and success made the other nearby peoples envious, and they soon fell under attack through such means as black magic and the use of fire ants. Unable to withstand the situation any longer, they retreated up the Sesayap to Long Kebiran.

While at Long Kebiran, the legend says, the daughter of a longhouse chief wandered outside, against her father's wishes, to play in the jungle, and was killed when a large fruit from an ironwood tree fell and struck her on the head. Enraged, her father commanded his people to move through the jungle, cutting down every ironwood in sight. Their travel took them from Long Kebiran up the Mentarang River, and while some continued up the river (presumably to Long Berang and above), others turned west and went up the Semamu, crossing into the middle Krayan watershed at Batu Inarit, and then dispersing to populate the whole Krayan and nearby river systems. Although the route cited by this legend differs slightly from that mentioned by Sellato (1997), it agrees with many of the basic claims made therein.

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[2]The Abai being predominantly Muslim, this account of events would explain how the word *abai* came into Lun Bawang with the meaning 'Malay, Muslim;' even the expression *masuk Melayu* is calqued as *semuet abai*.

2.3.2 PROXIMATE ORIGINS

The Lun Bawang themselves originate most recently from the highland areas in the Krayan River watershed in Indonesia's Kalimantan Utara, especially along the Lutut and Kemaloh Rivers in the northern part of the highlands. Historically, the two main motivations for Lun Bawang migration were farming and conflict, with a third motivation, downriver migration to be closer to centers of economic activity, becoming more prominent in recent decades (Datan 1989). As to the first motivation, until the mid-20th century, most of the Lun Bawang practiced hill rice cultivation, a process that Tuie (1995) and Padan and Ganang (2018) describe in some detail and that required farmers to create new fields every year.[3] Consequently, once all the arable land near a longhouse had been used, its residents would have to relocate to find new suitable soil. As for the second motivation, a conflict motivating a migration could be either with other residents of the same longhouse or with someone from another longhouse. The worst form of these was a blood feud, which had among its possible causes "adultery, wife theft, outstanding debts, [and] suspected witchcraft" (Datan 1989:145). Blood feuds among the Lun Bawang were inherited by subsequent generations, and "the indiscriminate pattern of reprisal" often resulted in harm to the innocent (*ibid.*). The safest course of action when a feud arose was therefore to relocate.

With time, and likely for these reasons, the Lun Bawang spread across the mountain ridge that today marks the border between Indonesia and Malaysia, and they entered the latter some centuries ago. According to Meechang Tuie (1995), they first entered Sarawak's Trusan watershed, settling on the upper Trusan River and its tributary, the Kelalan. The first group of inhabitants on the upper Trusan were known as the *Lun Labu'* ('Labu' people'), after their chief Labu' Danur. Another wave of migration settled on the upper Limbang at the confluence of the Adang River.

Approximately six generations after the *Lun Labu'* settled the upper Trusan, the first wave of the *Lun Kemaloh* ('Kemaloh people') arrived (Tuie 1995). The *Lun Kemaloh* had begun expanding northward, first into present-day Sabah. While some settled on the upper Padas River and the

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[3]A used plot of land would have to lie fallow for at least five years before it could be reused, and even then only if it appeared to have regained its fertility.

Matang, its tributary, near present-day Long Pa' Sia', further northward expansion was blocked by the Tagal, a Murut people of Sabah. Most of the migrating *Lun Kemaloh* therefore turned westward and crossed into the upper Trusan, settling first in three villages in the Long Semadoh area: Long Tinapé (a forerunner of today's Puneng Trusan), Long Semadoh Rayeh, and Long Beluyu' (Tadem Buas and Buayeh Sinau, p.c. [20 July 2018]). They would later expand as far north as Long Sukang on the Tengoa River, itself a tributary of the lower Trusan. The warlike disposition of the *Lun Kemaloh* displaced the *Lun Labu'*, who moved downriver to the lower Trusan, Lawas, and (to a lesser extent) Temburong River systems, becoming the present-day *Lun Lod* (Tuie 1995).[4]

In the mid-1800s, due to raids by Kayan war bands, the inhabitants of the Adang settlement abandoned it and relocated (Datan 1989). The area was repopulated in the late 1800s, but following a smallpox epidemic in the early 1900s, the people began to disperse again. The final straw that caused the residents of the last longhouse to flee the Adang permanently was the Japanese occupation of Borneo during World War II. The people of Long Adang feared a possible confrontation with Japanese soldiers from Limbang, who wished to reach the upper Trusan in search of foreign missionaries rumored to be under the protection of the locals; the Adang basin, through which the missionaries had recently passed, was directly in their potential path (Agong Taie, p.c. [10 June 2018]).[5] Consequently, the Adang people scattered, with some moving down the Limbang and others going to the upper Bawan in the Krayan watershed. Yet others, under the leadership of Datuk Racha Umong, later the first Lun Bawang member of parliament, moved into the upper Trusan area and settled at Long Kerebangan (a short distance downriver from Long Semadoh, near the conflu-

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[4]Langub (1987) places this migration in the 18th century, which would in turn place the initial settlement of the upper Trusan in the 16th or 17th century. The *Lun Labu'* probably spoke an earlier form of today's Pa' Ruab dialect, rather than the Kemaloh dialect spoken by those who displaced them. See §11.2.1 for the dialects and their distribution.

[5]These rumors were true; Borneo Evangelical Mission founder C. Hudson Southwell, his wife, and two companions were sheltered for several months in 1942 at the aforementioned Long Tinapé. Though the village no longer stands, having moved downriver to become the present Puneng Trusan, a plaque marks the site to this day. Southwell and company later traveled down to the coast to surrender in order to prevent Japanese reprisals against their Lun Bawang hosts (Southwell 1999).

ence of the Kelalan), whither other Adang residents had fled in the past. Since this time, the Adang dialect has largely disappeared, its speakers having adopted the dialects of their destinations. In Long Kerebangan, for example, as of this writing, only a small handful of elderly speakers retain even a passive knowledge of the Adang dialect, having otherwise shifted to the Kemaloh dialect. This shift appears to have been relatively quick, as, even in the 1960s, schoolchildren on the upper Trusan could identify which of their classmates were from Long Kerebangan based solely on their speech (Baru' Langub, p.c. [27 July 2018]).

2.4. THE LUN BAWANG BEFORE WORLD WAR II

Events of the 20th century altered the life of the Lun Bawang so dramatically that the sketch of community life must be divided into "before" and "after" sections, with World War II serving as a convenient approximate dividing line. This section and the one that follows treat only those aspects of community life that have disappeared or been greatly altered. Those that have remained more or less constant or changed only slightly are treated separately afterward.

2.4.1 ANIMISM AND TABOOS

Understanding the life of the pre-war Lun Bawang is virtually impossible without reference to their former animistic beliefs and practices that permeated nearly every aspect of their living. In a word, they believed that the jungles surrounding them were home to numerous spirits that communicated their will through the behavior of certain animals. They believed that they had to pay due honor to these spirits and seek their permission in advance of many activities. Failing to uphold these obligations, or otherwise offending the spirits through breaking one of the manifold taboos to be observed, could bring disaster on the offender or his entire longhouse (Tuie 1995).

For example, Tuie (1995:31–2) relates the following regarding construction of a longhouse:

> If it was thought that a place was suitable, then they would begin the ceremony to call the bird that was known as *mengai'*. First, a fire would be lit in an open space. Shrubs would be placed atop the fire pit to emit smoke. Meanwhile, several people would stand in several places to watch and observe the direction in which the birds flew when they later emerged. If the *mengai'* came out, it would fly to either the left or the right. Sometimes, the bird would return to the place where it was first seen.

Its non-emergence let them know clearly that the supernatural powers did not approve their designs. If the bird was seen flying to the right and then returned to the left, it was called *ngukub*, or a complete flight. Their request had been very much approved. However, if they were careless in the work of cleaning the site, for example, if they accidentally cut a snake, or if one was seen crossing that area, they were forced to cancel their designs...If they did not follow that process, catastrophe would strike the community.[6]

They also had to observe ceremonies of this sort to obtain permission for agricultural activities, headhunting, and even simple journeys. Even if they were successful in obtaining permission, however, the spirits could rescind it at any moment via a second, unfavorable, omen:

Although the *mengai'* bird gave initial permission to those who had called it, if another animal such as a snake was seen crossing the road, then the permission was no longer valid. Precious plans would have to be halted. In traveling, if a snake was seen crossing the road, or a *mengai'* bird flew from the wrong direction, then the journey must be halted until permission was given again...Those involved could camp or return to the longhouse again. Sometimes, a journey that was supposed to take a span of two days could take up a long time, for example, two days to a week (Tuie 1995:43).[7]

Aside from the need to seek preternatural permission for most activities, the Lun Bawang also observed manifold taboos in order to avoid angering the spirits and bringing disaster upon themselves. They forbade, for example, pointing at a rainbow, lest the offender's fingers fall off or otherwise be shortened.[8] Whistling at night was forbidden, lest the night ghosts hear and pull out the offender's tongue. To carelessly throw out food scraps would anger the rice spirits, who would abandon the offender's family, thereby negatively impacting their rice harvest the following year. One going to the river, for whatever purpose, must not so much as mention food, lest a spirit hear and eat the offender while he bathes. Laughing at animals such as cats, chickens, or frogs would result in a catastrophic storm wherein an entire longhouse might be turned to stone (Tuie 1995).[9] Legends of such occurrences are still known to this day:

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[6]Original text in Malay. Per Ganang *et al.* (2008:*mengai'*), this bird is the blue-throated bee eater.

[7]Original text in Malay.

[8]This taboo, found around the world, is documented in more detail in Blust (1981).

[9]Such beliefs are widespread across much of island Southeast Asia as well as the Malay Peninsula, for which see Blust (1981, 1991, 2013a).

> In the area of Long Semadoh are found two large stones that resemble a house. Legend states that the house and its inhabitants were turned to stone after they laughed at an animal that belonged to an old person. Between Long Beluyu' and Ba' Kelalan, there is found a long stone, crossing the river, whose shape is like a wall. According to legend, several people from a longhouse laughed at a tiger that had been caught in a snare. As a result, hail fell. To avoid the hail, they tried to run away, but when they crossed the river, hail fell and changed them to stone. *Ulu gura'*, near Long Beluyu', also has awful legends. Almost everyone who becomes stone does so because they laughed at animals (Tuie 1995:43).[10]

Similarly, in a portion of the legend of folk hero Upai Semaring, while the protagonist was away on a hunting trip, the residents of his longhouse, in the area of present-day Binuang on the middle Krayan River, laughed at a dog swimming across the river with a flaming torch in its mouth. Immediately, a storm broke, wherein the entire village was turned to stone before sinking into the river in a landslide (Padan and Ganang 2018:82).

2.4.2 RICE AGRICULTURE

As long as the people observed these taboos and obtained the requisite permission from the spirits, then they could carry on with the main activities of life, foremost among which were rice farming and headhunting. The former of these, rice agriculture, has long been, and remains to this day, in spite of significant methodological changes, the primary economic activity of the Lun Bawang. For most of their history, a majority of the Lun Bawang grew rice in hill plots. The process, as described by Tuie (1995) and Padan and Ganang (2018), can be summarized as follows:

Once the aspiring farmers found a suitable location for a field and obtained permission from the spirits via the *mengai'* bird, the first step was to clear the undergrowth in the jungle. After clearing the undergrowth, they had to fell all the trees in the area; they would then cut the trees into smaller pieces so as to let them dry out faster. Two or three months later, once the wood from the felled trees was sufficiently dry, they would burn the entire plot in a controlled manner so as to completely clear the land. Then would come the months-long process of first dibbling holes in the ground and planting seeds in them, removing weeds that might compete for resources with the rice seedlings, looking after the rice and protecting it from birds and other hungry animals,

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[10]Original text in Malay.

and—finally—harvesting. The need to open a new plot in this manner every year, along with the fact that a used plot would then have to lie fallow for at least five years before re-use, motivated frequent migrations in search of new farmland. Furthermore, due to the labor-intensive nature of the process (exacerbated by the fact that an ill omen signifying a revocation of preternatural permission for farming could force them to abandon a plot and start over), the farmers could easily miss the proper time for planting, thus causing a food shortage (Alex Balang, p.c. [17 May 2019]). By the 1960s, all these factors would eventually spur the Lun Bawang to adopt the irrigated farming techniques in use by their cousins in the Krayan and Lutut River basins.

2.4.3 HEADHUNTING AND ITS SPOILS

The second major activity of life among the pre-World War II Lun Bawang was the now-abandoned practice of headhunting, once common to nearly all the native peoples of Borneo. Although the precise motivations for a headhunting raid were varied, most of them, at their most basic, were rooted in a desire either to prove one's own worth and bravery or to exact revenge on an enemy for a previous offense (Padan and Ganang 2018). For instance, if a man spoke too arrogantly of himself, an elder might challenge him to back up his words with a head, issuing the challenge symbolically by handing him rice for the journey and a weapon for battle (Padan and Ganang 2018). Ganang *et al.* (2008) also attests two lexemes with similar, specific headhunting-related meanings: *tudun* 'a trip taken by a man in order to regain his status; taking a head as a result of being rejected by a woman,' and *mawi* 'go on a one-man headhunting trip after being angered or embarrassed for being refused marriage by a woman.'[11]

A warrior could carry out a raid either as an individual or with a war band, although the Lun Bawang apparently never formed large armies on the same scale as, e.g., the Kayan (Ricketts 1963 [1901]). The common practice was to attack another longhouse openly, though stealth raids, too, were an option. Upon reaching the outer limit of the target village, a warrior would loudly proclaim

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[11]Striking a somewhat different tone, Ricketts (1963 [1901]:278) claims that, except where feuds are concerned, "Indiscriminate headhunting simply for the sake of obtaining heads is the exception rather than the rule."

a *tengadan*, a verse of self-praise, declaring his bravery and past heroic deeds, as in this *tengadan* provided by Padan and Ganang (2018:115):[12]

> Oi muyuh wa' buayeh, wa' becuk, inih uih kuir lemulun inul ada', tungé' uih pian emé' ngalap uluh muyuh!
>
> O ye offspring of crocodiles, offspring of monkeys, it is I, a leopard man, descended from a ghost, come here to take your heads!

In the case of a larger attack by a band of warriors, the standard procedure was "the burning of the enemies' longhouse early in the morning, the killing of all the men unlucky enough to be captured, and the enslaving of all the captured women and children" (Deegan 1970:267).

When a warrior returned to his longhouse after a successful raid, the community would hold a celebration around an earthen crocodile that had been built in advance of the battle.[13] Wooden poles would be erected, around which the people would walk or dance as they sang an *ukui*, a song celebrating the valiant exploits of the victorious hero. The feasting, dancing, singing, and drinking—especially of *burak*, a type of rice wine—could last for days (Ganang *et al.* 2008).

While the chief spoils of war were the heads taken home as trophies, a second major source of wealth and prestige taken in war was the captives, usually women and children, taken as slaves. Little is still known about the shape of this former institution among the Lun Bawang other than a few footnotes in the *Sarawak Museum Journal*: slaves were considered the captor's property and could be sold (Datan 1989:154). They were "regarded as companion[s] of the family members of the owner who are of the same age and sex. A slave had to do extra mundane work but otherwise [was] allowed to look after and raise his own family in a separate [longhouse] compartment after marriage" (Datan 2015:136–7). Marriage with members of higher social classes was not permitted.

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[12]Lun Bawang orthography adjusted for consistency. Original text in Lun Bawang and Indonesian.

[13]Although some have since been damaged by grazing buffalo or willfully destroyed, many others of these earthen effigies are still visible today.

Like headhunting, suppressed among the Lun Bawang by the Rajahs Brooke in the early 20th century,[14] slavery, too, was outlawed in 1928 (*ibid.*).[15]

2.5. 20TH-CENTURY CHANGES

In the early part of the twentieth century, Sarawak's Lun Bawang population was on its way to extinction. Ravaged by diseases including smallpox and cholera, entire villages perished, and others were abandoned altogether. Somewhere from 50–80% of the entire Lun Bawang population within Sarawak may have died (Datan 1989, 2015).[16] Among the causes frequently cited for their plight include "severe malnutrition, unhygienic living conditions, and overindulgence in rice wine (*burak*) consumption" (Datan 2015:134; cf. also Pollard 1933). By 1933, the situation was such that a civil service officer remarked that the Lun Bawang were "a dying race," adding, "I do not think I shall lay myself open to a charge of exaggeration if I say that the average male [Lun Bawang] is unfit to work for a hundred days in the year and that seven out of ten married couples are childless" (Pollard 1933:146). In such dire circumstances, the Lun Bawang were primed for the dramatic changes that would come to their way of life in consequence of two events in close succession: the arrival of Protestant missionaries, and the outbreak of the Second World War.

The first of these began with the arrival of Canadian W.E. Presswood[17] of the Christian and Missionary alliance in the Mentarang and Krayan areas of Dutch (now Indonesian) Borneo and of Australian C. Hudson Southwell of the Borneo Evangelical Mission (BEM)[18] in the Limbang and Trusan areas of Sarawak. Presswood appears to have reached the Lun Bawang first; Padan and Ganang (2018) cites 1932 as the date by which he had reached the Mentarang and Krayan River systems, while Ganang *et al.* (2008) place the establishment of the first congregation at

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[14]The date is uncertain, but the use of the present tense by Ricketts (1963 [1901]) in describing feuding and head-hunting suggests that, whatever headhunting's juridical status in 1901, it had not yet been fully suppressed in practice.

[15]Whether this abolition was the work of the Rajahs or of the newly arrived missionaries is unclear from the sources.

[16]The imprecision of this figure is due to the fact that population estimates vary considerably by source.

[17]Incorrectly called "Prestwood" in Lees (1979).

[18]Also called *SIB* for the Malay name, *Sidang Injil Borneo*.

Long Nuat, on the Kemaloh River, as early as 1928. In Sarawak, meanwhile, Southwell and his comrades reached Limbang in 1928, and by 1933 they were hearing rumors from far inland suggesting that Presswood's activities across the border were already well known to the highland Lun Bawang. When Southwell and company requested permission to conduct his mission in the Trusan River system in 1935, however, the Rajah initially denied permission, only to relent two years later (Southwell 1999; Lees 1979). In the years leading up to the outbreak of World War II, most of the Lun Bawang, aside from some holdouts who would not be converted until after the war, had adopted the outsiders' new religion and abandoned many of their former animistic beliefs and practices (cf. Heimann 2007). This widespread adoption was due, in no small part, to the efforts of Panai Ruab and Gugkang Tebari', the first Lun Bawang preachers, who came from the aforementioned Kemaloh village of Long Nuat, spreading Protestant teaching and, with it, the influence of the Kemaloh dialect (Ganang *et al.* 2008).

A number of lifestyle changes then occurred in very short order: the production and consumption (in a publicly visible manner) of rice wine entirely ceased. The people ceased to observe the taboos that had so encumbered their work before, and economic productivity dramatically increased. The missionaries brought with them doctors, under whose guidance the aforementioned "unhygienic living conditions" (Datan 2015:134) were greatly ameliorated. A 1939 remark in the *Sarawak Gazette* illustrates the contrast: "The place was so swept up that there was no place to put used banana skins…the Lun Bawang longhouse, far from being the foulest in Sarawak…is now quite the cleanest and best kept" (qtd. in Tuie 1995:19). With such marked and rapid improvements in living conditions, it is little wonder that so many Lun Bawang longhouses, eager to reap for themselves the material benefits that their neighbors were experiencing, raced to embrace the teachings of these outsiders.[19]

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[19]Lees (1979:44), obliquely (and doubtless unintentionally) corroborating the suggestion that material improvements in living conditions were a driving factor in their mass conversion, points to early misinterpretations of these teachings that suggests some initial difficulty in communicating them, in spite of the Lun Bawang's receptiveness.

1939 also saw the outbreak of the Second World War, which reached Borneo two years later when Japanese forces seized control of the island. During this time, the Lun Bawang and their cousins, the Kelabit, formed the one of the significant forces of resistance to the invaders. At the encouragement of (and supplied with weapons by) Major Tom Harrisson, many able-bodied Lun Bawang formed guerrilla militias to drive the Japanese out, including by the temporary revival of headhunting. They achieved their final victory when the last Japanese soldiers on Borneo surrendered at Long Langai, a Lun Bawang village in Sarawak's Ba' Kelalan region (cf. Harrisson 1959b; Heimann 2007).

A consequence of the war was the opening up of links to the outside world with the establishment of airstrips in the highlands for military purposes. Previously, a journey to the nearest coastal trading center had to be made on foot or by river and could take anywhere from a few days to a week or more, depending on how far inland one lived. With air transportation now a possibility, the voyage could instead be measured in minutes. Increased trade thus became possible, and it expanded even further later with the construction of roads.

Around the same time, the highlands saw the establishment of their first primary schools, bringing standardized education to the Lun Bawang for the first time. Children who wished to continue their education afterward would have to travel to town, initially on foot, although with time, travel by car or airplane became possible, too.[20] Although the establishment of either schools or new means of transportation would be significant on its own, the combination has been particularly influential. Because of the increased ease of access to coastal trading centers, and because of the need to travel to these regions to continue education, large diaspora populations began to form in urban areas. To this day, many youths who travel to town to complete their education remain there to seek employment afterward, returning to their highland villages only upon retirement, if at all.

Two further significant changes occurred following the war: first, hill rice farmers by and large switched to growing rice in irrigated fields, adopting the technique from their cousins in the Long

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[20]Today, in the Krayan area, a small number of secondary schools are found in the major population centers. The Lun Bawang-speaking regions of Sabah and Sarawak, however, still have only primary schools.

Bawan-Belawit and Ba' Kelalan regions, who had pioneered the method generations prior.[21] This change resulted in the relocation of some longhouses, as, if a village was located too far up a river's headwaters, the land nearby was insufficiently flat for their fields. Around the same time, albeit more gradually, the longhouse itself began to disappear. The import of construction materials not available in the jungle and the cessation of the need to migrate to find fresh land for hill farms each year allowed for the building of more permanent homes, very often imitating western styles.

All during this time, the Kemaloh dialect continued to gain influence among the Lun Bawang and their close relatives, largely due to the activities of BEM missionaries. In particular, Alan Belcher and his wife Madge selected the Kemaloh dialect as the standard into which they would translate the *Bala Luk Do'* (1982), which they did while living at Long Semadoh. The reason for this selection, according to the villagers, was that the Kemaloh dialect was the most widely intelligible variety. One may reasonably ask if this situation was in fact a consequence of previous missionary activity. The fact that the first Lun Bawang congregation was established at Long Nuat, a now-abandoned settlement along the Kemaloh River, is of no small importance, and likewise that the first Lun Bawang preachers, Panai Ruab and Gugkang Tebari', also hailed from Long Nuat.[22] Whatever the answer, the Kemaloh dialect remains today the most widely intelligible, such that it is used as a *lingua franca* in the Krayan watershed to compensate for the somewhat lower intelligibility between some of the region's diverse local dialects.

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[21]There is an interesting legend concerning the origin of the practice: the Lutut River basin, where it originated, was allegedly once a series of lakes. Because of a lack of ground for hill rice plots, food shortages followed, and the people called out to two of their leaders, Asai and Beriné, for help. The two dug their way through a mountain ridge where the Rayeh River meets the Lutut to form the Beruan, draining the lakes and allowing the people to move to lower ground, where they developed wet rice cultivation. See Appendix B to Harrisson (1967) and LeBar (1970) for the legend and Schneeberger (1979) for some circumstantial geological evidence supporting its plausibility, in spite of some obviously fictitious elements. This dissertation renders no judgment on the truth of these claims.

[22]Lees (1979) states, erroneously, that Panai Ruab was Sabahan, but Ganang *et al.* (2008) and a contemporary source (Mickelson 1939) oppose this claim. The latter not only places him in Long Nuat but identifies him as the headman.

Within the Krayan watershed, the early 1970s saw substantial population shifts all across the region due to a program of regrouping instituted by the Indonesian government. The aim of the program was to reduce the total number of settlements and to relocate the various groups of Dayic-speaking peoples to more easily accessible locations (Sellato 1997). As a consequence of this initiative, which reduced the total number of settlements in the Krayan watershed from 81 to 21, and later back up to 27, the Kemaloh River itself, where the dialect treated in this dissertation originated, is now uninhabited; even Long Nuat no longer stands. The former inhabitants of the Kemaloh have since regrouped further to the west, primarily at Long Umung (Ganang *et al.* 2008). In the Krayan, the abandonment of the longhouse in favor of individual free-standing homes seems to have occurred contemporaneously with this reorganization. Today, however, all eight of the villages that moved together to form Long Layu', which has a mixed population of Lengilu', Lun Bawang, and others, are reported to have longhouses being rebuilt in their original locations along the Krayan headwaters. As of this writing, none are yet inhabited (Lewi Gala' Paru, p.c. [18 May 2019]).

2.6. SUBSISTENCE

Though the precise methods have evolved, the basic means of subsistence among the Lun Bawang have remained constant since time immemorial: rice agriculture, hunting, and fishing. To say that rice is eaten at every meal is no exaggeration at all. The yield from a single family's field can, depending on its size and that of the family, produce as much as three years' worth of rice in one harvest (Balan Berauk, p.c. [July 2017]). With the abandonment of hill plots (*lati' tana' luun*) in favor of irrigated rice fields (*lati' ba'*), the yield has rather improved, and the amount of labor required is less than before. Nonetheless, rice agriculture remains a time-consuming and labor-intensive process, lasting half the year or more.

Preparations for planting usually begin June, when the farmers clear the weeds out of the flooded fields and set to work building or repairing the buffalo fences. The planting process itself typically begins in early July, when they soak the seeds (*ngepu' samai*). After a few days, when the seeds have dried and begun to germinate, they are scattered (*ngisak samai*) in a nursery plot

and allowed to take root and begin to grow. About a month later, usually in early August, the people remove the seedlings by the roots (*mubput samai*) and replant them, one-by-one, in a large irrigated field (*nibu padé*). For the next several months, the primary task is protecting the growing rice (*muro*) from weeds, birds, buffalo, and other would-be consumers, until mid-to-late December, or sometimes early January, when the time for harvesting (*ngeranih*) arrives. To accomplish the replanting and harvest, the Lun Bawang often employ a system of collective labor, whereby villagers take turns working in each other's fields to accomplish the job quickly, with the field's owner being responsible for providing food and drink for the laborers. Depending on the number of hands available and the size of the fields in question, the entire harvest process for a village can stretch as late as into mid-February. The fields are then left alone for the succeeding months to allow weeds to grow, incidentally providing food for the local water buffalo, the inevitable waste from which increases the fields' fertility (Balan Berauk, p.c. [July 2017]; cf. also Tuie 1995 and Datan 1989).

Aside from rice and any items imported from the coastal towns, all other food comes from domestic animals, the rivers, and the jungle. Chickens (*lal*) are rarely in short supply. Domestic pigs (*berek*) are a common food source, as are wild boars (*baka*). Hunting remains an essential means of sustenance, though nowadays the weapon of choice is usually a shotgun rather than the traditional blowpipe (*eput*). Among the animals commonly eaten are three species of deer: the sambar deer (*payo*), the barking deer (*talau*), and the mouse deer (*pelanuk*). Others include the porcupine (*terutung*) and at least one monkey species (*becuk*). Special occasions may see the slaughter of one or more large domestic livestock animals such as a cow (*sapi'*) or water buffalo (*kerubau*). Numerous types of fish (*lawid*) are readily available in the rivers and, during the off-season, in the flooded rice fields, which also often contain large populations of edible snails (*akep*).

2.7. SETTLEMENT AND SOCIAL ORGANIZATION

Among the most important aspects of settlement is evident from the names of many villages: Lun Bawang settlements are almost invariably found along rivers. Their names usually consist of

the word *Long* (truncated from *elung*)[23] 'confluence' and the name of a nearby tributary of the main river along which they are located. For instance, Long Tanid is located near the confluence of the Tanid with Sarawak's Trusan River, Long Langai is found near the meeting of the Langai with the Kelalan, Long Nuat was formerly at the confluence of the Nuat with the Kemaloh, and so forth for dozens of other villages.

Traditionally, a village consisted of one or two longhouses, which, due to the rugged terrain on which they were built, were much smaller than those found among lowland peoples such as the Iban. Per Ricketts (1963 [1901]:281), the largest longhouses found among the Lun Bawang were about 250–300 feet long with about thirty doors, each door belonging to a different family; however, the typical longhouse was closer to half this size, with Pollard (1933) noting that the average longhouse population was closer to ten families. Longhouses were commonly built atop a small hill or ridge to gain a defensive advantage in case of an enemy attack. The house itself would stand several feet off the ground, with ladders, which could be retracted at night or in other cases of necessity, at either end for access. The house was divided into two main sections: a veranda, which spanned the entire length of the house and was the center of community life, and the series of individual familial compartments.

Longhouses have all but vanished among the Lun Bawang today, being replaced by villages of freestanding houses. Houses today are typically built with a ground floor of cement, the rest being predominantly wood, often with a roof of corrugated iron. The villages themselves vary in size; based on numbers provided by *Forum Masyarakat Adat Dataran Tinggi Borneo* (FORMADAT) in summer 2017, the average population on the upper Trusan is about 250 residents per village, though in actual fact some are smaller and others larger. Major population centers in the Krayan area are rather larger, home to several hundred residents, in no small part thanks to the aforementioned governmental reorganization project.

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[23]Though the spelling <lung>, preferred by Ganang *et al.* (2008), more accurately reflects the actual pronunciation ([lʊŋ]), the spelling <long>, probably of British origin, is the one in common use and is therefore employed herein.

Although not divided into inflexible castes, a degree of social stratification has long existed in Lun Bawang society. The basic division is between the two classes of *lun do'* (lit. 'good people') and *lun dat* (lit. 'bad people'), the former normally being rather larger in number. Most of the *lun do'* fall into the subclass of *lun tap-tap* ('ordinary people'), while those considered exceptional, whether due to wealth, bravery, or some other outstanding characteristic(s), are *lun mebala* ('famous people'). Village headmen (Malay: *ketua kampung*) are usually chosen from among the *lun mebala*. The other major class, *lun dat*, likewise consists of two types of people: descendants of slaves, and those who must work in others' fields for wages, being unable to support their families by their own industry (Langub 1987). Social mobility is dependent entirely on one's acquisition or relinquishment of the characteristics of another stratum; a productive *lun dat* may garner sufficient material success and respect to become a *lun do'*, and a *lun do'* can find himself a *lun dat* "if he fails to display the qualities befitting that status" (Datan 1989:149). Marriage between classes, though traditionally "unthinkable," is now quite common (*ibid.*). More precisely, according to one informant, in the past, the eldest child of a *lun mebala* family had to marry a child of another *lun mebala* family, but that family's other children were free to marry any *lun do'*, whether *lun mebala* or *lun tap-tap*—but never a *lun dat* (Balan Berauk, p.c. [18 July 2018]).

2.8. NAMES AND GENEALOGIES

A normal Lun Bawang name consists of two parts: first, a given personal name, and second, the father's name. This convention applies to the Lun Bawang names found in the acknowledgments at the start of this dissertation. For example, Sandy Lukas is the daughter of Lukas Riong, Patrick Tonny Lakai is the son of Lakai Balang, and Singa' Buas is the son of Buas Tagal. This naming convention easily lends itself toward the tracing of one's genealogy, as each name contains a clue to the next. Thus, for example, Gerit Sinawat is the daughter of Sinawat Tadem, son of the Tadem Lawet mentioned in Datan (2015). Jayl Langub is the son of Langub Pengiran, son of Pengiran Ukung, son of the Ukung Kelupan who is the subject of Ricketts (1900) and Datan (2015). Balan Berauk is the son of Berauk Taie, the son of Taie Gugkang, son of Gugkang Ilan, son of Ilan Giso, son of Giso Kading, son of Kading Ruab. Today, some Lun Bawang have three names rather than

two, the first two being, in either order, a traditional Lun Bawang name and a Western-sounding name. Peter Tadem Buas, mentioned in the acknowledgements at the front of this dissertation, is one such example, as are Dr. Bob Baru' Langub and his older brother Jayl Taie Langub.

Some elders are able to recount their lineage much further back, so that, somewhere along the way, they cross over from history to legend: the same Berauk Taie recounted eleven generations when asked: from his mother Bungan Pengiran, through Pengiran Balung, Balung Betung, and eight more ending with Maluh Kalung. He followed with three rhyming lines of iambic tetrameter: *Kalung ducung upa' bata'/iTin Beriné mipi' tana'/iAsai ngabang ebpa'.* The first line means 'Kalung sheltered himself (as with an umbrella) using a large yam leaf,' while the other two lines 'Tin Beriné molds the earth/Asai channels the water' are a reference to the legendary origin of wet rice cultivation (cf. note 21 above.). A few can recount even further still, all the way back to Rang Dungo (called Arang Dungo in some sources), the first man according to Lun Bawang mythology, and Terur Eco, the first woman, whose name means "Egg of the Sun" since she was born from an egg that Rang Dungo retrieved from the summit of a fiery mountain (cf. Tuie 1995; Padan and Ganang 2018; the former contains several such lineages).

Traditionally, Lun Bawang names are taken predominantly from animals, natural objects or phenomena, or at times other concepts of importance to the people. Some common names for men include Balang 'tiger,' Udan 'rain,' Tadem 'sharp,' Tai' (also spelled *Taie*) 'excrement,' Parir 'sap used for blowpipe dart poison,' Labo 'rat,' and Buayeh 'crocodile,' among numerous others. Some common names for women include Bulan 'moon,' Gituen 'star,' Laput 'cloud,' Takung 'pond,' Bau 'bead,' and Busak 'flower,' among many more. Tuie (1995) provides a much fuller list.

Part II

Kemaloh Lun Bawang Grammar

CHAPTER 3: PHONOLOGY

3.1. PHONEMIC INVENTORY
3.1.1 CONSONANTS

The Kemaloh Lun Bawang dialect has the nineteen consonant phonemes shown in the standard orthography in table 3.1.

TABLE 3.1. LUN BAWANG CONSONANTS

	Bilabial	Coronal	Palatal	Velar	Glottal
Nasal	m	n		ng	
Plain stop	p b	t d		k g	'
Voiced aspirate	bp	c		gk	
Fricative		s			h
Affricate			(j)		
Liquid		l			
Flap/trill		r			
Glide			y	w	

The consonant inventory of the Kemaloh dialect is typical of a western Austronesian language, except in two respects: (1) it has a typologically unusual series of voiced aspirated stops, and (2) it lacks phonemic palatal consonants other than *y* in non-borrowed vocabulary. The palatal affricate *j* is found only in loanwords and as an allophone of *di* before another vowel (e.g., *diu'* 'bathe' > *ju'* among many speakers).

3.1.1.1 VOICED ASPIRATES

Perhaps the most unusual characteristic of Lun Bawang phonology is the presence of a series of voiced aspirated stops /bp/, /c/ and /gk/. These are consonants that begin voiced and end voiceless, with, for most speakers, a late voice onset time in the following vowel, such that they are pronounced [b͡pʰ], [d͡t͡ʃʰ], and [g͡kʰ], respectively. Kemaloh Lun Bawang is one of only three attested dialects that retain these consonants more or less intact from Proto-Dayic and perhaps even

Proto-North Sarawak; the other two are the Bario and Long Lellang varieties of Kelabit, where the coronal consonant has the slightly more conservative pronunciation [d͡tʰ] and is written <dt>.[1]

Given their unusual character and the cross-linguistic rarity of such phonemes, other writers, such as Omar (1983) and Ladefoged and Maddieson (1996), have, perhaps unsurprisingly, characterized them as consonant clusters. However, such an analysis is, on several grounds, untenable. Blust (1974a, 2006) has provided several arguments for analyzing the voiced aspirates as unit phonemes, among which are the following:

1. If the voiced aspirates were consonant clusters, they would be the only intra-morphemic consonant clusters in the language. The prohibition against intra-morphemic clusters (see §3.2.1) is so strong that loanwords with clusters often see these reduced (e.g., *gaber* 'picture, photo' from Malay *gambar*), even though most Lun Bawang speakers are also fluent in Malay.

2. If these consonants are clusters, the aspiration, sometimes quite strong, is inexplicable without an unusual phonological rule stipulating that voiceless stops become aspirated after voiced stops, since the plain voiceless stops are typically unaspirated.

3. The high vowels /i/ and /u/ lower to [ɪ] and [ʊ] in syllables closed by a coda other than /h/ or /ʔ/ (see §3.3.8). This lowering never occurs before voiced aspirates, indicating that the entire unit must belong to the onset of a single syllable rather than being divided between two.

4. Under suffixation, the plain voiced stops and the voiced aspirates undergo predictable alternations (see §3.3.5) that are more simply accounted for under an analysis of the voiced aspirates as unit phonemes.

5. The primary condition under which voiced aspirates occur (§3.2.2.1.1) is the same condition that causes automatic gemination of most consonants in the closely related Bario Kelabit.

6. The voiced aspirates are nearly uniformly reflexes of singleton voiced stops (see §11.2.3.1).

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[1]Cf. §11.2.3.1 for an explanation of these consonants' origin.

7. These consonants, unstable as they are due to the voicing transition, have changed in most Dayic dialects, invariably producing a single consonant as the outcome.

8. The coronal voiced aspirate /c/ cannot be a cluster of [d] + [tʃ] because no plain [tʃ] occurs anywhere in the language except as a variant pronunciation of this same phoneme /c/.

3.1.2 VOWELS

The six phonemic vowels are shown in Figure 3.1. The mid vowels *é* and *o* are noticeably less common than the other four, as they are the product of two historical monophthongizations of *au* and *ai*. The first of these events, common to Lun Bawang, Kelabit, Tring, and a handful of other dialects, was unconditioned (cf. §11.3.1). The second, following the loss of intervocalic glottal stop and exempting certain conditions, occurred only in the Kemaloh, and perhaps also Long Berang, dialect (cf. §11.3.4).

FIGURE 3.1. LUN BAWANG VOWELS
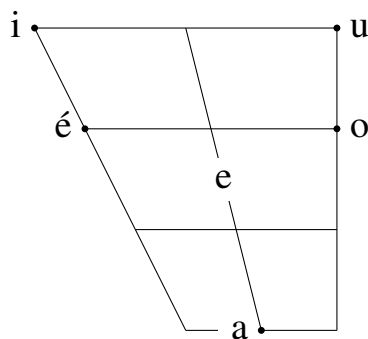
Although, with the sole exception of the minimal pair *luun*[2] 'above, atop' and *lun* 'person, people,' vowel length is not contrastive, the vowels /a/, /i/, and /u/ can nonetheless be either long or short. In certain cases, such as in word-final position, length is predictable (cf. §3.3.7); in others, the length is the result of the historical coalescence of two or more vowels (cf. §11.3.3). In the Kemaloh dialect, the vowels /é/ and /o/, except when they occur in loanwords, are always long, due

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[2]The spelling of this word is idiosyncratic, no doubt chosen to distinguish the minimal pair; while in many other related dialects this word is indeed disyllabic, the two adjacent identical vowels have coalesced into a single long vowel in the Kemaloh dialect. See also §3.2.2.2.2.

to their having formerly been diphthongs (cf. §§11.3.1, 11.3.4). /e/, on the other hand, is always short.

The two diphthongs of the Kemaloh dialect are /ay/ and /aw/, usually written <ai> and <au>, respectively. These diphthongs have a very restricted distribution (see §3.2.2.2.3) that reflects the sole conditions exempted from the second monophthongization event (see §11.3.4).

3.2. PHONOTACTICS

3.2.1 CANONICAL MORPHEME SHAPE

The canonical Lun Bawang root conforms to the prototypical Austronesian shape of CVCVC, though roots or more and fewer syllables are also found. None of the consonants in that CVCVC shape is strictly obligatory; a word may lack an onset (e.g., *ebpa'* 'water'), a medial consonant (*tueh* 'strength'), or a coda (*bala* 'speech, news').

Except in loanwords, consonant clusters are never found within a single morpheme. Consequently, syllabic codas are permissible only in word-final position, except when part of a consonant cluster occurring across a morpheme boundary, usually following syncope of a schwa (§3.3.9). In such a case, a nasal-stop (or, more rarely, nasal-liquid) cluster, usually homorganic, may be formed across the morpheme boundary. For instance, *te-baruh* 'woven,' when infixed with the perfective patient voice marker *<in>*, though underlyingly *t<in>e-baruh*, becomes *timbaruh* by schwa syncope and assimilation of /n/ to the following consonant's place of articulation (Ganang *et al.* 2008). Nonetheless, for some speakers, the prohibition on consonant clusters is so strong that they instead drop the nasal altogether, yielding, e.g., *pikatu* 'joined together' for expected *pingkatu in Langub (2014a).[3] A cluster may also be found in words prefixed with *se-* 'one' and the numeral ligature *nge-*; the text collection of Padan and Ganang (2018) contains such forms as *sengpicut* 'a pinch (quantity)', from *se-nge-picut*, where the schwa of the ligature is lost, creating a rare heterorganic cluster.[4] Other than in these two situations, which occur only across morpheme boundaries, the

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[3]Ganang *et al.* (2008), on the other hand, does contain the expected form with the nasal-stop cluster.

[4]The foregoing examples suggest that only /n/ assimilates in nasal-stop clusters, while /ng/ does not; however, examples of clusters formed with the ligature *-nge-* are sufficiently rare as to preclude a higher degree of confidence

Kemaloh dialect, along with most other Lun Bawang dialects, has no consonant clusters in unbor-
rowed words.[5]

3.2.2 DISTRIBUTION OF SPECIFIC SEGMENTS

3.2.2.1 CONSONANTS

3.2.2.1.1 VOICED ASPIRATES. Due to the specific circumstances that gave rise to them (cf.
§11.2.3.1), the voiced aspirates /bp/, /c/, and /gk/ are very restricted in their distribution. They
occur only intervocalically, always—with one exception—between the vowels that constitute the
nuclei of a word's penultimate and final syllables. Although these consonants may follow any of
the vowels /e/, /u/, or /i/, they follow /e/ disproportionately often for historical reasons. On the
other hand, any vowel may follow a voiced aspirate.

TABLE 3.2. DISTRIBUTION OF VOICED ASPIRATES

ebpa'	[əbp͡haʔ]	'water'
bubpun	[bubp͡hʊn]	'pile'
ribpa'	[ribp͡haʔ]	'area of forest felled for a farm' (Ganang *et al.* 2008)
mebecé	[məbədt͡ʃheː]	'silly, stupid'
tucu'	[tudt͡ʃhuʔ]	'salt'
icung	[idt͡ʃhʊŋ]	'nose'
pegkung	[pəgk͡hʊŋ]	'mountain'
gigkil	[gigk͡hɪl]	'tear meat with teeth' (Ganang *et al.* 2008)
gugkang	[gugk͡haŋ]	'prepare for a journey'

3.2.2.1.2 GLOTTALS. In the Kemaloh dialect, the glottal consonants /h/ and /'/ are found ex-
clusively in word-final position and, unlike other coda consonants, do not induce lowering of a
preceding high vowel (cf. §3.3.8). Although a glottal stop may follow any vowel except /e/, /h/
may follow only /i/, /u/, or /e/. These consonants are lost under suffixation (see §3.3.6).

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in this generalization, hence its confinement to a footnote.

  [5]See, however, note 7 in §3.3.2 for a glance at a syncope affecting the Adang dialect and allowing certain complex
onsets and word-medial clusters within a single morpheme.

3.2.2.1.3 LABIALS. All bilabial consonants, other than the voiced aspirate (§3.2.2.1.1), can occur in any consonant position in the word. However, due to a constraint inherited from Proto-Austronesian (Blust 2013b), sequences of dissimilar labials separated by only a vowel are rarely found if no morpheme boundary intervenes between the consonants. A search through Ganang *et al.* (2008) reveals that the sequences *bVp* and *pem* are found in only one or two roots each; *pub* is found in only four; and *bVm*, *pam*, *pum*, *pab*, and *pib* are nonexistent. *pim*, though not occurring in roots, is somewhat more commonly attested as an allomorph of the instrumental voice prefix *piN-* (cf. §§3.3.1, 4.4.2). The sequence *peb*, too, does not occur in roots but is amply attested in words bearing the reciprocal *pe-* prefix (cf. §4.4.1.2).

3.2.2.1.4 LIQUIDS. Like labials, either of the liquids /l/ and /r/ can occur in any consonant position within the word in the Kemaloh dialect. However, two dissimilar liquids may not occur separated by only a vowel. The sequences **lVr* and **rVl* are therefore forbidden. Historically, where such sequences have arisen, they have been eliminated by assimilation of the first liquid to the second, as in *terur* 'egg,' from earlier *telur. Across the Dayic languages more broadly, the behavior of liquids is highly erratic, with many changes attested, described in §§11.2.3.3, 11.4.3, 11.5.1.

3.2.2.1.5 GLIDES. Both phonemic glides /w/ and /y/ are found intervocalically. /w/ may follow either /a/ or /i/ and precede any non-back vowel. /y/ may follow either /a/ or /u/ and precede any non-front vowel. Only /y/ may appear word-finally, and only in the sequence /uy/, often written <ui>. Although phonetic glides in word-initial position are plentiful, their behavior under prefixation, their separate articulation in slow speech, and their syllabicity as indicated by the metrical patterns of poetry found in Padan and Ganang (2018) indicate that nearly all of these phonetic glides are phonemic vowels in hiatus with a following vowel. The only unambiguous example of an unborrowed word with an initial glide in Ganang *et al.* (2008) is *waluh* 'eight.' Phonemic glides may, however, be found in word-initial position if a preceding initial /a/, /e/, or /u/ is lost to antepenultimate neutralization (usually under suffixation; cf. §3.3.2).

3.2.2.1.6 OTHERS. /s/ is not found in word-final position.

3.2.2.2 VOWELS

3.2.2.2.1 MID-VOWELS. In unborrowed Kemaloh vocabulary, mid-vowels other than schwa are found almost exclusively in the ultima and may be followed by any consonant that can appear in word-final position except /h/. See §§11.3.1, 11.3.4 for the two monophthongization events that produced the mid-vowels from most diphthongs.

3.2.2.2.2 HIATUS. Acceptable vowel-vowel sequences in Kemaloh Lun Bawang consist of a high vowel followed by any qualitatively distinct vowel other than the mid-vowel of corresponding backness. Examples of each acceptable sequence are shown in table 3.3.

TABLE 3.3. ACCEPTABLE VOWEL SEQUENCES

	a	e	é	o	i	u
i	*ria'* 'uproar'	*sier* 'see'		*gio* 'move the body'		*diu'* 'bathe'
u	*nguab* 'yawn'	*pued* 'navel'	*bué* 'paddle'		*suit* 'bird'	

In these sequences, the first, high vowel is very often, though not uniformly, reduced to a glide, such that, e.g., *bua'* 'fruit' is pronounced [bwaʔ], *kuan* 'to, for' as [kwan], *diu'* 'bathe' as [djuʔ] (often then > [d͡ʑuʔ]), and *gio* 'move the body' as [gjoː].

In cases where a schwa would occur immediately prior to another vowel due to prefixation, the schwa drops.[6] /a/ does not occur immediately before another vowel either; in cases where it once did, the two have become a diphthong. Sequences of identical vowels are also not found in the Kemaloh dialect, having contracted into a single long vowel. (E.g., the word for 'animal,' *puung* [pu.ʊŋ] in Southern Ba', Kelabit and other related dialects, has become *pung* [puːŋ] in Kemaloh Lun Bawang.)

3.2.2.2.3 DIPHTHONGS. The diphthongs /ai/ and /au/ appear only word-finally, or in the ultima followed by a glottal stop.

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[6]For the sole systematic exception, see §4.7.1.

3.2.2.2.4 OTHERS. Any vowel except for /e/ may occur word-finally. Only /e/ and /i/ may occur as the nucleus of an antepenultimate syllable, but /e/ may not do so if that nucleus is also word-initial (see also §3.3.2).

3.3. AUTOMATIC PROCESSES AND FREE VARIATION

3.3.1 NASAL SUBSTITUTION

One of the most important phonological processes in the language is homorganic nasal substitution, a process whereby a nasal assimilates to and replaces a following obstruent. This process occurs with two prefixes, the actor voice prefix *N-* (§4.4.2.1) and the instrumental voice prefix *piN-* (§4.4.2.3), the former of which is far more commonly employed. Though the morphophoneme that displays the behavior described in this section can be analyzed as underlyingly /ng/, it is here written *<N>* as a notation of convenience, principally to avoid confusion with other prefixes containing /ng/ that do not display its distinctive behavior.

The process of nasal substitution operates as follows: When either *N-* or *piN-* is prefixed to a root, if the root begins in an obstruent, the nasal assimilates to its place of articulation. Following the assimilation, the obstruent is deleted, leaving only the assimilated nasal. If the root begins in a non-obstruent, the nasal found is always /ng/, with an epenthetic /e/ inserted, if necessary, to avoid a consonant cluster. Some examples of the result of nasal substitution with the actor voice prefix *N-* are shown in table 3.4:

TABLE 3.4. HOMORGANIC NASAL SUBSTITUTION

Root	Actor Voice	Gloss
peno	meno	'steal'
bada'	mada'	'show'
tebpeng	nebpeng	'fell (a tree)'
dawar	nawar	'call'
sier	nier	'see'
ketep	ngetep	'bite, sting'
ganang	nganang	'lift'
lubed	ngelubed	'return, send back'
redu'	ngeredu'	'step on'
irup	ngirup	'drink'

3.3.2 ANTEPENULTIMATE NEUTRALIZATION

As noted in §3.2.2.2.4, the only phonetic vowels that can occur as an antepenultimate nucleus are [i] and [ə] (*<e>*). However, *phonemic* /a/ and /u/ are permitted in the antepenult, where they are neutralized to [ə]. This neutralization is especially noticeable in suffixed verb forms; e.g. *taban* 'abduct, kidnap,' when suffixed with the imperfective patient voice marker *-en* (§4.4.2.2), becomes *tebanen* by reduction of the antepenultimate vowel. Phonemic mid-vowels other than /e/ are barred from antepenultimate syllables altogether (see §3.2.2.2.1).

If an antepenultimate /a/, /e/, or /u/ occurs in word-initial position, it is lost altogether. Thus, *ayud* 'write,' when suffixed with *-en*, loses its leading vowel, becoming *yuden*. Under such circumstances, a consonant such as /y/ that is not found root-initially may occur in initial position (cf. §3.2.2.1.5). Even when not in word-initial position, an antepenultimate schwa may often be reduced to such a degree as to be barely perceptible. The schwa in, e.g., *pelanuk* 'mouse-deer' sometimes becomes so faint that, but for the spectrographic evidence of its marginal existence, the listener could be forgiven for perceiving the word as [pla.nʊk].[7]

3.3.3 PROGRESSIVE NASALIZATION

The nasality of a nasal consonant in Lun Bawang typically spreads rightward onto a following vowel. Any consonant, including a phonemic glide, blocks the spreading from continuing to further vowels. Where two vowels occur in hiatus, however, the nasality may bleed through a resultant *phonetic* glide onto the second vowel. Nasality does not, under any condition, spread leftward. Table 3.5 shows assorted nasal-bearing words and their corresponding phonetic transcriptions.

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[7]This phenomenon may be an early stage of a process seen in the related Adang dialect, affecting schwas in nonfinal syllables. Such a schwa is elided when a certain set of permissible consonant clusters results. It occurs in initial syllables only if the resulting cluster has a liquid as its second member (e.g., [pla.nʊk] for Kemaloh *pelanuk* 'mouse-deer,' [brək] for *berek* 'pig'). Word-medial elision can also create stop-nasal clusters (e.g., [mət.nəb] 'cold' for Kemaloh *meteneb*, [məb.nəh] 'low' for *mebeneh*). Because of the dearth of remaining Adang speakers, most of whom have adopted the Kemaloh dialect, this phenomenon could not be studied in more detail.

TABLE 3.5. PROGRESSIVE NASALIZATION

Word	Phonetic Transcription	Gloss
anak	[a.nãk]	'child'
inan	[i.nãn]	'have'
mawang	[mã.waŋ]	'happy'
mengered	[mə̃.ŋə̃.rəd]	'old'
muyuh	[mũ.juh]	'2PL'
niat	[nĩ.ãt̪] ~ [ɲ̃ãt̪]	'spirit, breath'
nguab	[ŋũ.ãb] ~ [ŋʷãb]	'yawn'

3.3.4 *di > j __V

Although an unambiguously phonemic /j/ is found only in loanwords, the sound occurs as a variant pronunciation of the sequence /di/ followed by another vowel. A word such as *diu'* 'bathe' may be pronounced either [di.uʔ] or [d͡ʑuʔ]. The choice between these two pronunciations follows a distinct generational cline: elderly speakers are more likely to use the conservative pronunciation [di], while younger speakers are more likely to use the palatalized variant [d͡ʑ]. Nonetheless, the choice of which variant to use remains somewhat free; a speaker in his mid-forties, considering the two pronunciations of *dier* 'neck,' [di.ər] and [d͡ʑər], spontaneously expressed uncertainty as to which variant was "correct."

3.3.5 VOICED ASPIRATES ALTERNATING WITH VOICED STOPS

The distribution of the voiced aspirates is quite restricted; they occur almost exclusively between the vowels that constitute the nuclei of the penult and the ultima, the former of which is often, though not always, a schwa (see §3.2.2.1.1).[8] Stress appears to have once fallen on the penult, meaning that a voiced aspirate would always occur after the stressed vowel (cf. Blust (2006)), but see §3.4 for the present state of stress in the language. When a word containing a voiced aspirate is suffixed, such that the voiced aspirate no longer occurs after the penultimate vowel, the voiced aspirate becomes its corresponding plain voiced stop. Hence, when *ecuk* 'request' is suffixed with

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[8]The sole attested exception is *ngecekuh* [ŋə.d͡tʃə.kuh] 'because,' where the voiced aspirate instead occurs between the antepenultimate and penultimate vowels. This word, however, appears to be in origin a grammaticalization of *ngeceh* 'do, act' (from root *keceh* 'thing') + *ku*, the latter a versatile preposition often indicating cause or instrument.

the patient voice marker *-en* (cf. §4.4.2.2), underlying /ecuk-en/ becomes *duken* by loss of the leading schwa and a change from the coronal voiced aspirate to its plain voiced equivalent.[9]

Conversely, if, due to suffixation, a plain voiced stop finds itself following a penultimate schwa, it changes to the corresponding voiced aspirate. Hence, when *keteb* 'cut down' receives the patient voice suffix *-en*, underlying /keteben/ surfaces as *ketebpen*.

Although in these cases the voiced aspirates and plain voiced stops undergo predictable alternations, the former may not be considered allophones of the latter, as they also occur after penultimate /i/ and /u/ (cf. §3.2.2.1.1). In this environment, a plain voiced stop remains as such, and that series contrasts with the voiced aspirates, as in the minimal pair *idan* 'when?' vs. *ican* 'ladder.'

3.3.6 GLOTTAL ELISION

The glottal consonants /h/ and /'/ occur only word-finally (cf. §3.2.2.1.2). They are therefore lost under suffixation; e.g., *belih* 'buy' with the patient voice suffix *-en* becomes *belien*, and *diu'* 'bathe' becomes *diuen*. These consonants are also often lost in connected speech when not phrase-final, such that, e.g., *pulu' eceh* 'eleven' may be pronounced [pu.lu.ə.d͡tʃʰəh].

3.3.7 LENGTHENING OF FINAL VOWELS

Whenever /a/, /i/, or /u/ occurs word-finally, the vowel is automatically pronounced long. Thus, *bala* 'word, news' is phonetically realized as [ba.laː]. The same may be said, trivially, of /é/ and /o/, which, except in loanwords, are pronounced long in any position. /e/ neither occurs word-finally nor can be lengthened in any position.

3.3.8 VOWEL LOWERING IN CLOSED SYLLABLES

The high vowels /u/ and /i/ lower to [ʊ] and [ɪ] in most closed syllables, which, due to the strict constraints on consonant clusters, occur nearly exclusively at the end of the word. Only the glottal consonants /h/ and /'/ do not cause this lowering when they occur as codas. Thus, e.g., *buduk*

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[9]One exception has been observed, a suffixed PV verb form *tucuen* 'be salted,' from root *tucu'* 'salt,' where the phonological rule predicts **teduen* (FN3:53). Whether it is representative of an incipient change or merely a momentary anomaly is uncertain.

'summit, peak' is phonetically realized as [bu.dʊk] and *mecing* 'arrive' as [mədt͡ʃʰɪŋ], but *penu'* 'full' remains [pənuʔ], and *lati'* 'farm' remains [latiʔ].

3.3.9 SCHWA SYNCOPE, CLUSTER REDUCTION

In words of more than two syllables, a schwa is often deleted in the environment VC__CV. One such instance is seen in the example of *sengpicut* 'a pinch' given above (§3.2.1); this word consists of the root *picut* 'pinch,' prefixed with *se-* 'one' and the numeral ligature *nge-*. The antepenultimate schwa then finds itself in the environment that conditions syncope and consequently drops out, resulting in one of the few situations in which a consonant cluster is permitted across a morpheme boundary. This syncope occurs especially often in verbs with a penultimate schwa that are then infixed with *<in>*, the perfective patient voice marker (cf. §4.4.2.2). For instance, the root *ketep* 'bite, sting' can be infixed to yield underlying /kinetep/, which then undergoes syncope to give **kintep*. In cases of infixation, however, the resulting consonant cluster is not allowed to stand, so the first element (either *n* or *m*, depending on the infix used) is deleted, yielding the observed form *kitep*. The end result of syncope followed by cluster reduction is a pair of forms, e.g., *ketep* and *kitep* that, on the surface, is indistinguishable from ablaut.[10] The same is true of the basic intransitive infix *<um>*, for examples of which see §4.4.1.1.1.

3.3.10 SCHWA CONTRACTION

As discussed in §3.2.2.2.2, schwa cannot co-occur with most other vowels. If, through pre-fixation, a schwa falls immediately before another vowel, it is lost.[11] This contraction occurs particularly often when the stative prefix *me-* is added to a vowel-initial base, e.g. *me-* + *ulun* 'life' yields *mulun* 'alive.' When the combination *ae* results from suffixation, the schwa coalesces with the preceding vowel to produce a long [aː], as when *tala'* 'throw away' is suffixed with *-en*

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[10]This phenomenon is found much more widely than in Lun Bawang alone, for which see Blust (1997). See also note 15 in the next chapter for why the term *ablaut* is not used in an absolute sense.

[11]For the sole systematic exception, see §4.7.1.

(imperfective patient voice). *tala'en* first loses the intervocalic glottal stop (cf. §3.3.6), and the adjacent vowels then contract to produce *talan* [ta.laːn].

3.3.11 SECOND MONOPHTHONGIZATION

Frequently, but under unpredictable circumstances, the patient voice suffix takes the form *-in* rather than *-en*. In these cases, if the suffix immediately follows the vowel /a/ (after the application of glottal elision, for which cf. §3.3.6), the result is monophthongized to *é*, in accordance with the second historical monophthongization event, by which diphthongs are no longer to be found other than word-finally or before a final glottal stop (see §11.3.4). Thus, the result of suffixing *bala* 'word' with the variant patient voice marker *-in*, while remaining *balain* in most other dialects, is *balén* among Kemaloh speakers.

3.3.12 DIPHTHONG RESTORATION

Words ending in a mid-vowel *é* or *o* that resulted from the first historical monophthongiza- tion event (see §11.3.1) display the original diphthong when when the patient voice suffix *-en* is added. These suffixed forms were exempted from monophthongization because the diphthong's offglide could be grouped as the onset of the following syllable. For instance, the root *peno* 'steal,' when thus suffixed, becomes *pinawen*, reflecting Proto-Dayic *penaw. The word *terawé* 'think, remember,' when thus suffixed, becomes *terayen* (*teruayen* is also attested), reflecting Proto-Dayic *teraway. The loss of *-aw-* in the suffixed form, underlyingly /terawayen/, is due to reduction of antepenultimate /a/ to schwa (§3.3.2), subsequent syncope of that schwa in the environment VC__CV (§3.3.9), and simplification of the resulting *-rw-* cluster by deleting the glide.[12]

3.3.13 *p ~ f*

Certain Kemaloh speaking regions, especially in Sabah and in the area east of Long Bawan in Kalimantan, show a strong preference for lenition of nonfinal /p/ to [f], a tendency manifested

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[12]An analysis whereby the verbs are underlyingly /penaw/ and /teraway/, and *aw > o and *ai > é word-finally, is untenable since diphthongs *do* occur in word-final position and before final glottal stops, those two positions having been exempted from the second monophthongization; the analysis would consequently require an unconditioned split.

only rarely in the Sarawakian Kemaloh-speaking areas. Many speakers, along with the original orthography of Ganang *et al.* (2008), are consistent enough that this phenomenon could fairly be labeled allophony; many other Kemaloh speakers, however, are less consistent, freely alternating between [p] and [f] in nonfinal position. Even the pronunciation [p͡f] has been sporadically attested in, e.g., *kelupan* [kə.lu.p͡fan] 'forget.' This variation was probably once shared with the dialect of Long Berang, where nonfinal *p has since merged with /h/, almost certainly by way of *f.

3.3.14 DIPHTHONG RAISING

In most other dialects, the diphthongs /ai/ and /au/ are rather uniformly pronounced [aj] and [aw]. In the Kemaloh dialect, on the other hand, their phonetic realization is more variable, with the nuclei frequently raised to yield [əj] and [əw]. This variation is common enough that it is sometimes, albeit inconsistently, reflected in the orthography, where <eu> or <ei> may be written for <au> or <ai>. *ai* is particularly variable, with the word *delai* 'man' having been recorded with at least three different interchangeable pronunciations: [də.laj], [də.ləj], and [də.lej].

3.4. STRESS

Kemaloh Lun Bawang stress is not contrastive and appears, from the available data, to usually fall on a word's final syllable. When a word is spoken in isolation or occurs at the end of an intonational phrase, this stress is quite pronounced, seemingly thanks to the amplifying effects of a strong boundary tone. Outside this context, the contrast between the penultimate and final syllables of a word is much less obvious, with fairly similar weight given to each and only a slight, though highly consistent, preference for the ultima. In words of more than two syllables, the antepenult is noticeably unstressed by comparison to both the penult and the ultima, a fact no doubt connected to the antepenultimate neutralization phenomenon described in §3.3.2.

Though stress seems to be predominantly final, it is not uniformly so; a small number of words consistently display penultimate stress. Some such words include *pelanuk* 'mouse-deer,' *buayeh* 'crocodile,' and *lematek* 'leech.' A few other words, such as *kereb* 'time, when,' despite being very common, do not appear to have a consistent distinction between the penult and ultima at all. One

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word, *ngecekuh* 'because,' displayed a tendency to stress the antepenult (cf. note 8 in §3.3.5 for a possible explanation of this word's form.).

The subject of stress has heretofore proven a troublesome question in the study of Lun Bawang and its relatives. Indeed, even for the purposes of this work, the matter is less clear than otherwise desirable owing to the cancellation of fieldwork plans due to international border closures. Consequently, a proper study of Lun Bawang stress, especially to disentangle it from intonation, could not be carried out, and a somewhat *ad hoc* methodology was required instead. Therefore, in order to more clearly justify the above statements on stress and to lay out the issues involved for future research, a brief discussion of the problem and an overview of the evidence is provided forthwith.

3.4.1 THE PROBLEM

Stress was very likely once predominantly penultimate at some degree of time depth in the history of Lun Bawang, perhaps as recently as Proto-North Borneo or Proto-North Sarawak, since, according to the hypothesis of Blust (2006), this placement of stress was the condition that allowed the emergence of the voiced aspirates following a penultimate schwa. However, in many of the modern Dayic dialects, stress appears to be predominantly final, especially in those such as the Sa'ban varieties (cf., e.g., Clayre (1992); Blust (1999)) and the dialects of the upper Padi River, (§11.4.2, *infra*) which have undergone series of dramatic sound changes evidently triggered by strong word-final stress.

The position of stress is far less immediately obvious with some of the more phonologically conservative dialects such as Kemaloh Lun Bawang and Bario Kelabit. Omar (1983), discussing the former, makes no mention of stress in her sketch other than to say, correctly, that it is not contrastive, without stating where it falls. Blust (2006:315), dealing with both languages, states that in his original notes (archived as Blust 1971), stress was recorded as being "relatively even on both of the last two syllables, but with a preference for the penult." He contrasts this pattern with audio produced by younger speakers, which "shows a preference for final stress" (*ibid.*), suggesting that stress patterns may have changed since his original work. A further note indicates that languages of northern Sarawak commonly appear to have "final stress in citation forms but penultimate stress

in phrasal context" (*ibid.*). This last note also lends itself to another interpretation: that stress is regularly penultimate, and the apparent final stress in citation forms is actually the product of a strong boundary tone that creates an illusion of stress shift.

The statement that stress is relatively even on both of the last two syllables might lead one to ask whether languages such as Lun Bawang and Kelabit can truly be said to have word-level stress at all. This question is by no means unreasonable, given the controversy over stress in the not-too-distantly related Malay/Indonesian, about which two major hypotheses, both with supporting literature dating back to the late 19th century, are found. According to one, Malay has predominantly penultimate stress, which is deflected rightward if the nucleus of the penultimate syllable is a schwa. According to the other, Malay lacks word-level stress altogether, and the appearance of stress is due to intonation patterns. (See McDonnell 2016 for a more detailed overview of the Malay problem and review of the relevant literature.)

While work certainly remains to be done, including and especially on intonation, the available data nonetheless provide multiple lines of objective evidence that largely coincide. They agree in part with Blust, that penultimate and final syllables are often quite similar, but they also indicate that, even without the exaggerating effects of phrase-final boundary tones, most words have a mild but consistent preference for *final* stress.

3.4.2 EVIDENCE FOR FINAL STRESS

3.4.2.1 ACOUSTIC CORRELATES

The first, though perhaps most muddled, indication that stress is generally word-final comes from measurements of intensity and length in recorded speech of three speakers, totaling about fifteen minutes in length.[13] In these recordings, every clearly audible vowel in an intelligible word

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[13]Two of these recordings, produced by Lun Bawang community members, are available online. The first may be found at *https://www.youtube.com/watch?v=mkRfGZF2X_0* ("Berauk Taie idi Gerit Sinawat") and the second is at *https://www.youtube.com/watch?v=MILDEY_UwuQ* ("Ucapan Irau Aco Lun Bawang 2020 oleh YB Baru Bian"). The third was captured during the initial 2017 field trip that laid the groundwork for this dissertation and can be found in this project's archive as item *CM1-005*.

of two or more syllables (i.e., every vowel in over 800 words) was measured for intensity and length, revealing minor but consistent differences between penultimate and final syllables.

TABLE 3.6. ACOUSTIC CORRELATES OF STRESS

File	Prominent Syllable	Total			Exclude IU-final, open final syll.		
		Tokens	Avg. Intens.	Avg. Length	Tokens	Avg. Intens.	Avg. Length
"Ucapan…"	Ultima	25	+3.98 db	+52 ms	14	+3.56 db	+38 ms
	Penult	21	+2.69 db	+30 ms	19	+2.66 db	+29 ms
CM1-005	Ultima	135	+5.16 db	+119 ms	63	+5.06 db	+72 ms
	Penult	93	+5.11 db	+102 ms	54	+4.79 db	+110 ms
"Berauk…" Speaker 1	Ultima	219	+3.11 db	+82 ms	132	+3.19 db	+57 ms
	Penult	23	+3.26 db	+32 ms	18	+3.37 db	+32 ms
"Berauk…" Speaker 2	Ultima	138	+3.71 db	+60 ms	86	+3.78 db	+38 ms
	Penult	10	+2.87 db	+18 ms	10	+2.87 db	+18 ms
Totals	Ultima	517	+3.85 db	+84 ms	295	+3.77 db	+54 ms
	Penult	147	+4.32 db	+75 ms	101	+3.94 db	+72 ms

Table 3.6, above, requires some elucidation.[14] Each two-row section contains the figures for one of the data sources. Within each of these sections, the upper row contains the figures for all words whose ultima was acoustically more prominent (i.e., greater in intensity and duration), than the penult, and the lower row contains the figures for all words whose penult was acoustically more prominent than the ultima. Not included in the table are "mixed" words, where one of the syllables is notably more intense but the other is notably longer. This group of words were, for the most part, smaller than either of the other two groups, except in the file "Berauk Taie idi Gerit Sinawat," in which they outnumbered the small quantity of penult-prominent words.

Within each row, the number of tokens of the type of syllable is given (e.g., CM1-005 contains 135 ultima-prominent words). The next cell gives the average difference in intensity between the prominent syllable and the other (e.g., the average ultima-prominent word in CM1-005 has an ultima that is 5.11 db louder than its penult). The following cell gives the average difference in length (e.g., the average ultima-prominent word in CM1-005 has an ultima nucleus that is 72 ms longer than its penult's nucleus). The three rightmost columns repeat these statistics, but excluding

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[14]Since the data sources are already of less-than-ideal quality, the figures in the table must be taken as approximations; any attempt at statistical precision would be of dubious value.

words with open final syllables, since final vowels are always pronounced long, and words that occur at the end of apparent intonation units, since Blust's (2006) above note strongly implies the presence of a boundary tone that might exaggerate potential acoustic correlates of stress. Notably, this exclusion dramatically reduces the number of ultima-prominent words, while the drop in the number of penult-prominent words is much smaller. Even so, the number of ultima-prominent words greatly outnumbers the quantity of penult-prominent words.[15]

Some impressionistic conclusions, however tentative, can therefore be drawn on the basis of these data. Lun Bawang words tend to make either their penult or ultima just less than 4 decibels louder than the other and roughly 60–80 milliseconds longer than the other. Most of the time, by a margin large enough that it is unlikely to be an accident, this syllable is the ultima. With potential confounding factors such as lengthening of word-final vowels and boundary tones factored out, the reasonable conclusion to adopt, until further work can confirm or refute it, is that Lun Bawang has word-final stress.

3.4.2.2 CLIPPING

A second piece of evidence consistent with the hypothesis of word-final stress comes from truncations of certain common words and personal names, which occur in such a manner as to leave only the final syllable. *Ebpa'*, the Kemaloh term for 'water,' often loses its initial schwa and simplifies the voiced aspirate, becoming *pa'*. It is found as such in the names of rivers, such as *Pa' Kemaloh* 'Kemaloh River' or *Pa' Adang* 'Adang River.' The same is true of *elung* 'confluence,' which is often chopped to *long* [lʊŋ] and used thus in the names of villages located near the confluence in question, such as *Long Semadoh Rayeh* (at the confluence of the Semadoh Rayeh

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[15]Though not evident from the table, data measuring by types rather than tokens, if available, would likely present a much more lopsided predominance of ultima-prominent words, as the penult-prominent count in CM1-005 is artificially driven up by dozens of repetitions of *pelanuk* 'mouse deer,' *buayeh* 'crocodile,' and *lematek* 'leech,' all of which are penult-prominent.

and the Trusan) or *Long Umung* (at the confluence of the Umung and the Lutut). *Eco* 'day' is also frequently shortened to *co* or *so* in the same manner.[16]

The same phenomenon occurs in vocative hypocorisms, wherein a person's name is shortened to the last syllable alone. Some observed instances of this clipping include *Dem* from *Tadem*, *Nang* from *Ganang*, and *Lan* from *Bulan*.

3.4.2.3 RHYMING AND METER

Ample evidence from Lun Bawang poetry and music also points toward the ultima as the most prominent syllable in the word. So as to avoid duplication of the contents of the appendix, the reader is referred to its appropriate sections (§§A.2–A.4), where several types of oral literature are analyzed in brief, including their metrical structure and rhyme schemes. Two facts in particular, namely, that rhymes depend only on the ultima and that Lun Bawang poetry is uniformly iambic in meter, are both consistent with the above hypothesis that Lun Bawang stress is word-final.

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[16]In many related dialects, the cognates of Kemaloh *ebpa'* and *eco* have lost the initial syllable altogether and retain no trace of it in any context. Lengilu', for example, has *fé'* and *saw*, and Northern Ba' has *vfa'* and *co*.

CHAPTER 4: WORD CLASSES AND THEIR MORPHOLOGY

4.1. THE PROBLEM OF ROOT CLASSIFICATION

A large majority of Lun Bawang root words have no intrinsic lexical category. A root may of course be semantically predisposed toward one or other category; for instance, a word whose primary reference is to a concrete object is most likely to be interpreted out of context as a noun, and a word whose reference is to an act is most likely to be interpreted out of context as a verb. Nonetheless, even with such semantic predispositions, a root may very often be more than one part of speech, most commonly a noun or verb, and it therefore cannot be positively identified as a member of any one category when in isolation. Its categorical membership may be known with certainty only from its syntactic context.

As one example, the root *sier* refers to sight. In isolation, it could be understood as a noun or as a verb, and only with the appropriate syntactic context can its category be surely known. In the clause *Sier kegkuh*, 'As I looked...,' it is a verb (cf. §9.5.2 for this clause type), but in the sentence *Dat sier kuh* 'My sight is bad,' it is a noun (cf. §6.2 for this clause type). This overlap can also include the few true adjectives in the language. *Rayeh*, though usually an adjective, as in (1a) may also serve as a noun, as evident from (1b), where the syntactic context demands that it be interpreted as such:[1]

(1) a. Rayeh *as an adjective*

      Rayeh bua' bong   inih.
      large   fruit banana this
      'This banana is large.'

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[1]Because the data from Ganang *et al.* (2008) were drawn from a database created from raw digital files of Jay Crain's edited version of the work, references to the dictionary throughout give the relevant lexical entry rather than a page number.

b. Rayeh *as a noun (Ganang* et al. *2008:*awa-awa*)*

Awa-awa   mo'   uih   ku   rayeh=neh.
REDUP-amazed PTCL 1SG.PVT CAUS largeness=3SG.GEN
'I was astonished at its largeness.'

This flexibility in usage affects only unaffixed roots. With rare exceptions, an affixed word's lexical category may be immediately and certainly known without any reference to the syntactic context. This illustration is therefore meant not as a denial of the existence of distinct lexical categories, but as a cautionary prelude to the following sections in this chapter: although nouns, verbs, and even a small class of adjectives do indeed exist as distinct syntactic categories, this fact is not at all evident from the behavior of unaffixed roots, which blur the lines between them. Nonetheless, the use of some unaffixed roots for illustration of certain lexical categories will inevitably be necessary; however, such illustration is not intended to suggest that the roots in question belong exclusively or even primarily to the categories which they are used to exemplify.

4.2. NOUNS

A large majority of Lun Bawang nouns are unaffixed roots, bearing no particular morphological indication of their lexical class and must simply be learned as such. They show no inflection for any such features as number, gender, or case, nor are there any meaningful distinctions in the behavior of such subclasses as concrete and abstract nouns or count and mass nouns. One morphosyntactic distinction that does apply is the differential object marking of human and non-human nouns (cf. §6.6.2), according to which nouns with human referents, but not those with non-human referents, bear oblique marking when they occur as the patient of most transitive clause types. A second relevant distinction concerns the marking of personal names, treated immediately below.

4.2.1 PERSONAL NAME MARKING

Personal names or titles in Lun Bawang are preceded by the marker *i*, usually written together with the name as a single unit, e.g., *iBulan* or *iMutang*. If used with a title such as *Tuk* or *Tin*, used for older men and women, respectively, the marker occurs before the title, thus *iTuk Taie'* and not **Tuk iTaie*. This fact is also true of occupational titles, which may but need not be accompanied

by the person's name; one may therefore refer to a teacher as *iguru'* whether or not the name immediately follows.

The use of the personal name marker is syntactically conditioned. It is therefore not used in vocatives. In certain syntactic circumstances, *i* may be replaced by another marker such as the oblique *ni*, the quotative *ki*, or the possessive *di*. Because the usage of these forms parallels exactly that of the corresponding pronoun sets in *n-*, *k-*, and *d-*, see that section, §4.3.1, for further explanation.

4.2.2 QUANTITATIVE *kin-*

The prefix *kin-*, the only noun-producing prefix in the language, serves to form nouns of quantity, either from other nouns or from gradable adjectives, though as established above (§4.1), the line between the two is often hazy. When prefixed to a consonant-initial root, the prefix-final *-n-* assimilates to the place of articulation of the root-onset or, occasionally, is altogether dropped.[2] The semantic difference between a *kin-*prefixed word and its root is quite precise and therefore difficult to translate concisely. In general terms, the root refers to the upper end of the scale represented by the *kin-*prefixed form. For instance, e.g., *ado* 'distance' might be more precisely translated 'the condition or quality of being far away,' made evident by its adjectival use in the phrase *ba ado*, meaning 'very far' or its stative form *mado* 'far.' On the other hand, *kinado* 'distance' refers to the scale by which distance is measured; a question of 'How far?' is therefore asked using *Tuda' kinado?* (lit. 'How much distance?'). Table 4.1 provides several examples of this prefix, drawn principally from Ganang *et al.* (2008).

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[2]Orthographic note: Although the *n* will assimilate to [ŋ] before a velar onset, it remains written <n>, according to the English spelling convention, rather than being respelled <ng> as the Malay convention would have it. This spelling is doubtless a consequence of the fact that the orthography was initially developed by English speakers (cf. §1.4).

TABLE 4.1. NOMINALIZING *kin-*

Root	Prefixed	Gloss
ado	kinado	'distance'
awer	kinawer	'speed'
beneh	kimbeneh	'shortness'
io	kinio	'length of time'
kadang	kinkadang	'length'
kapal	kinkapal	'thickness'
kara	kinkara	'bulkiness'
rayeh	ki(n)rayeh	'size' (root: 'large')
tueh	kintueh	'strength'
tutun	kintutun	'depth'
ula'	kinula'	'quantity'
uneng	kinuneng	'nearness'

4.3. PRONOUNS AND DEMONSTRATIVES

4.3.1 PRONOUNS

Pronouns in the Kemaloh Lun Bawang dialect occur in three persons and four numbers (although the paucal is, in practice, rather rare) with an inclusive/exclusive distinction found in the first-person nonsingular. These pronouns come in five sets, each of which is discussed below in its respective subsection. In addition to these five sets, the language also has an indefinite pronoun as well as several other quasi-pronominal forms referring to familial relations.

4.3.1.1 PIVOT PRONOUNS

The first, most basic, set of pronouns is given in Table 4.2. These forms mark the sole argument of most intransitive clause types. In voice-marked transitive clauses, they indicate the clausal pivot, the argument in the clause indicated by a verb's voice morphology and bearing a privileged syntactic status (cf. §§6.6.1, 6.6.3). Note that, although the second and third-person paucal forms clearly contain the numeral *teluh* 'three,' they are not strictly trial and may be used for any small number of people greater than two.[3]

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[3]In these and subsequent pronoun sets, *kai dueh* '1DU.EXCL' is listed separately from *kai* '1PL.EXCL' because, although the former is clearly analyzable as the latter plus the numeral 'two,' the numeral is in practice never omitted in the dual usage, suggesting that *kai dueh* may be a lexicalization.

TABLE 4.2. PIVOT-MARKED PRONOUNS

	SG	DU	PAUC	PL
1st EXCL	uih	kai dueh	kai	
1st INCL	—	kiteh	tau	
2nd	iko	medueh	meteluh	muyuh
3rd	ieh	didueh	diteluh	ideh

4.3.1.2 GENITIVE PRONOUNS

Table 4.3 shows the second set of pronouns, here labeled "genitive." Their function is actually twofold, however: First, they function as true genitives via placement after a noun to indicate possession. Second, except in the actor voice (AV) (§6.6.3.1), these pronouns, when placed immediately after a verb, indicate pronominal agents. The singular and third plural forms are phonologically enclitic and represented as such in interlinear glosses, but elsewhere, according to convention, they are written as separate words from those to which they cliticize.

TABLE 4.3. NOMINATIVE/GENITIVE PRONOUNS

	SG	DU	PAUC	PL
1st EXCL	kuh	kai dueh	kai	
1st INCL	—	kiteh	tau	
2nd	muh	medueh	meteluh	muyuh
3rd	neh	didueh	diteluh	deh

4.3.1.3 OBLIQUE PRONOUNS

The third pronominal set is shown in Table 4.4. Their primary function is as obliques, and they also mark human (or anthropomorphized) patients in transitive clauses, except in the patient voice (PV) (cf. §6.6.3). This latter usage mirrors the differential object marking of nouns seen in non-PV transitive clauses, where human or anthropomorphized patients, but not inanimate patients, bear oblique marking (cf. §6.6.3.1). These pronouns are formed through cliticization of the oblique case marker *ne=* to the genitive pronouns.[4] In the syntactic contexts licensing the use of these pronouns, the personal name marker *i* likewise becomes *ni*.

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[4]The first-person form is anomalous, as if from *ne=guh* rather than *ne=kuh*; voiced aspirates typically alternate with the plain *voiced* stops, not the voiceless series (cf. §3.3.5).

TABLE 4.4. OBLIQUE PRONOUNS

	SG	DU	PAUC	PL
1st EXCL	negkuh	nekai dueh	nekai	
1st INCL	—	nekiteh	netau	
2nd	nemuh	nemedueh	nemeteluh	nemuyuh
3rd	neneh	nedidueh	nediteluh	nedeh

4.3.1.4 QUOTATIVE PRONOUNS

The fourth set of personal pronouns is formed through cliticization of *ke=* to the genitive forms.[5] In the Kemaloh dialect, they are primarily quotative, referring to the original source of reported speech (copiously exemplified at, e.g., (11c–g), (13a), (34b), and numerous others) but are also occasionally used to mark agents in one specific type of subordinate clause (§9.5.2). Other Lun Bawang dialects entirely lack the *ne=* oblique pronouns and use these for that function as well. In addition to these pronouns, the personal name marker *i* may also be found in a quotative form *ki*, and the remote demonstrative *dih* (§4.3.3) may be found as *kedih* with the meaning 'it is said.'

TABLE 4.5. QUOTATIVE PRONOUNS

	SG	DU	PAUC	PL
1st EXCL	kegkuh	kekai dueh	kekai	
1st INCL	—	kekiteh	ketau	
2nd	kemuh	kemedueh	kemeteluh	kemuyuh
3rd	keneh	kedidueh	kediteluh	kedeh

4.3.1.5 POSSESSIVE PRONOUNS

The last set of pronouns, shown in Table 4.6 is indicated by the presence of a *di=* element, likely a reflex of Proto-Austronesian locative marking (cf. Blust 2015). Like the genitive pronouns, they show possession. Unlike the genitives, however, these pronouns usually *precede* their head nouns. Also quite unlike the genitive pronouns, they can stand on their own without a head noun and can then function as possessive predicates (e.g., 'mine', 'yours'), probably as an extension of the

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[5]The first-person singular displays the same phonological anomaly as for the corresponding oblique form above.

original locative function (cf. §6.4). In addition to these pronouns, the personal name marker *i* has an analogous form *di* used in the same contexts.

TABLE 4.6. POSSESSIVE PRONOUNS

	SG	DU	PAUC	PL
1st EXCL	(di)duih	dikai dueh	dikai	
1st INCL		dikiteh	ditau	
2nd	diko	dimedueh	dimeteluh	dimuyuh
3rd	dieh	dididueh	diditeluh	dideh

4.3.1.6 INDEFINITE *nai*

In addition to the sets above, Lun Bawang also has a pronoun *nai*, which, per Southwell (1949:112), is a polite indefinite pronoun that "may be used in all persons and for indirect address." In practice, it is most commonly seen as a stand-in for the second-person, usually singular, though a dual *nai dueh* is also attested. It can most naturally be translated by 'one' or 'you' in the latter's colloquial generic sense. Its usage can be observed, e.g., in examples (102a–b) in §9.5.1.

4.3.2 KINSHIP-DENOTING PRONOUNS

The final class of pronouns in Lun Bawang consists of terms referring to both members of a particular familial relationship. To form these pronouns, a prefix *nge-* is first attached to a kinship term, such as to the otherwise obsolete form *tameh* 'father' to form *ngetameh*.[6] It may then be prefixed with *de-* to form a noun denoting relationship itself, such as *dengetameh* 'father and child,' as in *Dengetameh iKelasih didueh iBaru' ineh* 'Kelasih and Baru' are father and son' (Ganang *et al.* 2008:*dengetameh*). Alternately, it may be formed into a pronoun denoting the two members of the relation. The three possibilities are *di-ngetameh* 'those two (father and child),' second-person *me-ngetameh*, and first-person *kai ngetameh*. The interpretation of the latter two is context-sensitive.

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[6]The current form for 'father' is *taman*, which, like *tameh*, is from earlier *tama. *Taman* resulted from fusion of *tama with a 3rd-person singular genitive pronoun, which blocked the regular change of word-final *-a to *-eh* seen in *tameh*. The genitive force of the fused pronoun has since been lost, so that *taman kuh* 'my father' is perfectly acceptable. 'Your father,' however, is still represented by the form *tamam*, which bears a relic of a fused 2nd-person singular genitive. Other roots such as *tineh 'mother' and *tepuh 'grandparent' are analogous in their history.

If spoken to a father, *mengetameh* means 'you and your child,' but if spoken to a child, it means 'you and your father.' Likewise, *kai ngetameh* when spoken by a father means 'my child and I,' but when spoken by a child means 'my father and I.' These forms may be marked with the oblique clitic *ne=* when necessary. A non-exhaustive sampling of such forms with other kinship terms is given in table 4.7. The forms for 'husband and wife,' for reasons not evident, are built from a different root than that used to denote a spouse.

4.3.3 DEMONSTRATIVES

The demonstrative system of Lun Bawang is illustrated in table 4.8. The system contains three levels of deixis: proximal (nearby object, 'this'), distal (farther off yet visible object, 'that over there'), and remote (out-out-sight object, 'that').

TABLE 4.8. LUN BAWANG DEMONSTRATIVES

	Basic	1SG.GEN	2SG.GEN	3SG.GEN	Specific	Locative
Proximal	inih	kinih	minih	ninih	sinih	ienih
Distal	ineh	kineh	mineh	nineh	sineh	ieneh
Remote	dih	kidih	midih	nidih	sidih	iedih

These demonstratives come in six series: The first, on the far left of the table, is the basic series of words for 'this' and 'that.' The leading *i-* in *inih* 'this' and *ineh* 'that' is often lost in connected speech, and is often *de facto* omitted in writing, though it is always written here to avoid ambiguity. These three forms have a much wider distribution than in English. They may co-occur with genitive pronouns, which they follow in a noun phrase. When, however, the demonstrative would co-occur with a genitive pronoun indicating a singular possessor, the next three series of demonstratives are used instead. These three series are historically formed from the fusion of the basic forms with those pronouns, giving, for instance *lati' kineh* 'that rice field of mine' instead of **lati' kuh ineh*. In addition to genitive pronouns, the proximal and distal members of the basic series may accompany personal names (e.g., *iLasung ineh*, *iSelutan ineh*) and, more surprisingly, even personal pronouns. The proximal *inih* is always used with the first person (e.g., *uih inih*,

TABLE 4.7. SELECTED KINSHIP-DENOTING PRONOUNS

Basic Term	Relational Noun	First-Person	Second-Person	Third-Person
awan 'spouse'	*dengediruh* 'husband and wife'	*kai ngediruh* 'my spouse and I'	*mengediruh* 'you and your spouse'	*dingediruh* 'they two (husband and wife)'
anak 'child'	*denganak* 'siblings'	*kai nganak* 'my brother/sister and I'	*menganak* 'you and your brother/sister'	*dinganak* 'they two (siblings)'
arum 'co-grandparent'	*dengarum* 'co-grandparents'	*kai ngarum* 'my co-grandparent and I'	*mengarum* 'you and your co-grandparent'	*dingarum* 'they two (co-grandparents)'
iban 'parent/child-in-law'	*dengiban* 'parent and child-in-law'	*kai ngiban* 'my parent/child-in-law and I'	*mengiban* 'you and your parent/ child-in-law'	*dingiban* 'they two (parent and child-in-law)'
seruai 'wife's sister's husband'	*dengeseruai* 'two men whose wives are sisters'	*kai ngeseruai* 'my *seruai* and I'	*mengeseruai* 'you and your *seruai*'	*dingeseruai* 'those two (men whose wives are sisters)'
taman 'father'	*dengetameh* 'father and child'	*kai ngetameh* 'my father/child and I'	*mengetameh* 'you and your father/child'	*dingetameh* 'those two (father and child)'
tepun 'grandparent'	*dengetepuh* 'grandparent and grandchild'	*kai ngetepuh* 'my grandparent/ grandchild and I'	*mengetepuh* 'you and your grandparent/grandchild'	*dingetepuh* 'those two (grandparent and grandchild)'
tinan 'mother'	*dengetineh* 'mother and child'	*kai ngetineh* 'my mother/child and I'	*mengetineh* 'you and your mother/child'	*dingetineh* 'those two (mother and child)'

negkuh inih), while the distal *ineh* is regularly used with the third person (e.g., *ieh ineh*). The second person is attested with both (e.g., *iko inih*, *iko ineh*, *nemuh ineh*).

The next series is here termed "specific" because it is used to pick out a particular referent from among a range of possibilities and is best translated 'this one/that one.' They probably originate from a fusion of *se*, a short form for 'one,' with the basic demonstratives. The remote member of this series, *sidih*, also doubles as a free choice item meaning 'who/whatsoever' (§10.4).

The members of the last series, here labeled "locative," are more properly adverbial in their usage and best translated 'here' and 'there.' These forms resulted from fusion of the basic demonstratives with the locative marker *i-*, for which see also §4.8.

In addition to the forms in the table, two others are attested, *danih* 'these' and *daneh* 'those.' Their only distinctive characteristic seems to be their inherent plurality, as opposed to *inih* and *ineh*, which are underspecified for number. No form corresponding to the remote series is attested in the corpus.

4.4. VERBS

Verbs make up what is by far the morphologically richest lexical category in the language, accounting for the overwhelming majority of Lun Bawang morphology, which is predominantly, though not exclusively, prefixing. This section treats of the language's varied verb classes, their morphology, and their semantics. A discussion of the peculiar syntactic properties of each, and in particular their connection to the various correlates of voice, a concept at the heart of transitive clause formation, is deferred to the corresponding sections of chapter 6.

4.4.1 NON-VOICE MORPHOLOGY

4.4.1.1 BASIC DYNAMIC INTRANSITIVE AFFIXES

Lun Bawang's basic intransitives are those not marked by one of the derivational prefixes given below as belonging to a specific semantic class. Some basic intransitives, such as *buro* 'flee' and *diu'* 'bathe,' take no affixation in the imperfective aspect. The rest constitute the only class of verbs in Lun Bawang, besides the anomalous *kuman* 'eat,' to retain reflexes of the Proto-Austronesian

infix *<um> and to use a reflex of the infix *<in> to mark aspect alone without reference to voice. An intransitive root may be causativized by adding voice morphology, for which see §4.4.2.

4.4.1.1.1 INFIX *<um>. The basic intransitive morpheme is underlyingly *<um>*, though this form rarely appears on the surface. More often, when the infix's vowel occurs in a word's antepenultimate syllable, it appears as *<em>* with consonant-initial roots and *m-* with vowel-initial roots due to neutralization (§3.3.2). In the latter case, the form becomes homophonous with a stative form bearing the prefix *me-* (§4.4.1.9). Some illustrative examples are shown in table 4.9:

TABLE 4.9. INFIXED INTRANSITIVES

Root	Infixed	Gloss	Root	Infixed	Gloss
até	maté	'die'	lubed	lemubed	'return, go back'
damu'	demamu'	'cut weeds'	rareh	remareh	'(tree) drop ripe fruit'
dier	demier	'rotate, spin'	ruat	remuat	'come out'
dual	demual	'jump between trees'	sayo'	semayo'	'wander around'
gieng	gemieng	'wobble'	suet	semuet	'enter'
iluh	miluh	'get food poisoning'	tui	tumui	'wake up'
lalu'	lemalu'	'bounce off hard surface'	tulud	temulud	'fly'
langui	lemangui	'swim'	udan	mudan	'rain'

When the root of an infixed intransitive verb is disyllabic and has *e* as its penultimate vowel, a series of phonological reductions occurs cf. §3.3.9): the penultimate *e* is lost to syncope, and the first consonant in the resulting cluster (invariably *m*) is then deleted. On the surface, the result resembles ablaut[7] of *e* to *u*. A few roots with an initial penultimate *e*, such as *ebpeh* 'fall,' instead lose the *u-* of the infix and are left with a leading *m-* (hence *mebpeh*), just like roots beginning in other vowels. Examples of verbs exhibiting this behavior are given in table 4.10:

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[7]See note 15 below for why the term *ablaut* is not used in an absolute sense.

TABLE 4.10. ABLAUTING INTRANSITIVES

Root	Infixed	Gloss
bebpa'	bubpa'	'urinate'
ebpa	ubpa	'jump down'
egka'	ugka'	'stop'
egkeng	ugkeng	'harden, solidify'
epun	upun	'run'
gegkang	gugkang	'prepare to travel'
lebpi	lubpi	'overflow'
terem	turem	'sink'

4.4.1.1.2 PERFECTIVE *in-*. When marked for the perfective aspect, most verbs, including many in the category of basic intransitives, take the prefix *ne-* (§4.4.1.10). However, an intransitive verb with a vowel-initial root instead loses its imperfective *m-* prefix and attaches *in-* directly to the root. Intransitives that change an initial schwa to *u*, on the other hand, attach the perfective prefix *in-* not to the root but to the form with *u*. This prefix frequently loses the leading *i-*, either due to phonological erosion or in order to conform to the pattern of the more common perfective marker *ne-*, which becomes *n-* before a vowel. Examples, some of which are taken from Ganang *et al.* (2008), include:

Root	Imperfective	Perfective	Gloss
até	maté	(i)naté	'died'
ebpeh	mebpeh	(i)nebpeh	'fell'
epun	upun	(i)nupun	'ran'
iluh	miluh	(i)niluh	'got foot poisoning'
udan	mudan	(i)nudan	'rained'
upak	mupak	(i)nupak	'split open'

4.4.1.2 RECIPROCAL/COLLECTIVE *pe-*

The prefix *pe-*, which indicates reciprocal or collective action, is moderately productive. Some examples, extracted from Ganang *et al.* (2008), are shown in table 4.11.

TABLE 4.11. *pe-* MARKING RECIPROCAL OR COLLECTIVE ACTION

Root	Gloss	Reciprocal	Gloss
baya'	'follow'	pebaya'	'go together'
dat	'bad'	pedat	'accuse or speak ill of one another'
emung	'all'	pemung	'gather together'
gegkem	'grip'	pegegkem	'grip one another's hands'
katu	'fastening, joint'	pekatu	'join together'
ketep	'bite, sting'	peketep	'bite one another'
laga	'pillow, cushion'	pelaga	'rest against one another'
lengit	'closeness'	pelengit	'sit close to one another'
paté	'kill, murder'	pepaté	'kill each other, fight to the death'
rurum	'friend'	perurum	'be friends'
sier	'see, look'	pesier	'look at each other'
taban	'kidnap, abduct'	petaban	'elope'
tulu	'coincidence'	petulu	'coincide'
usu	'chase'	pusu	'chase each other'

A small handful of roots prefixed with *pe-* instead produce inceptive intransitive verbs, such as *pedanak* 'be taken by surprise' from *danak* 'suddenness' or *pakub* 'be crazy, go amok' from *akub* 'craziness.' Because such examples are few in number, this usage is likely no longer productive. Regardless of the semantic category to which it belongs, a verb form with the *pe-* prefix can be causativized via the further addition of voice morphology (§4.4.2).

4.4.1.3 REFLEXIVE *peri-*

The prefix *peri-* is not very productive. Clayre (1991:418) calls it "repetitive or continuous action," supported by the example *peritudo* 'keep on sitting,' further supported by a few examples from Ganang *et al.* (2008) such as *perisanang* 'play the triple gong.' A rather larger number of *peri-* verbs, however, are closer to reflexive in meaning. Before a vowel-initial root, an epenthetic *-ng-* may be added. Some examples follow are given in table 4.12.

TABLE 4.12. VERBS WITH REFLEXIVE *peri-*

Root	Gloss	Prefixed	Gloss
abuk	'drunkenness'	periabuk	'drink onself to drunkenness'
bebper	'fan'	peribebper	'fan oneself'
dadang	'heat from a fire'	peridadang	'warm oneself by a fire'
idang	'heat of the sun'	peringidang	'sun-bathe'
itek	'closure, cover'	peritek	'lock oneself in a room or house'
paté	'kill, murder'	peripaté	'commit suicide'
udan	'rain'	periudan	'walk or play in the rain'

4.4.1.4 PRETENSIVE *si-*

The prefix *si-*, with a meaning of 'pretend to,' is highly productive and can be found with numerous verbs. Some of the many possible examples include those shown in table 4.13.

TABLE 4.13. VERBS WITH PRETENSIVE *si-*

Root	Gloss	Pretensive	Gloss
akan	'eat'	siakan	'pretend to eat'
bebper	'fan'	sibebper	'pretend to fan oneself'
butung	'corpse'	sibutung	'pretend to be dead'
do'	'good'	sido'	'act proud, arrogant'
gagau	'restlessness'	sigagau	'pretend to be busy'
geteh	'anger'	sigeteh	'pretend to be angry'
kado'	'limp'	sikado'	'pretend to limp'
lubid	'lie down'	silubid	'pretend to lie down'
pudut	'build'	sipudut	'pretend to build something'
rudap	'sleep'	sirudap	'pretend to sleep'

4.4.1.5 MIDDLE/REFLEXIVE *si-*

A second prefix *si-*, also quite productive, has a middle or perhaps even reflexive sense. Examples, found in Ganang *et al.* (2008), are given in table 4.14:

TABLE 4.14. VERBS WITH MIDDLE/REFLEXIVE *si-*

Root	Gloss	Middle	Gloss
ayun	'reflection'	siayun	'look at one's reflection'
bada'	'show, inform'	sibada'	'introduce oneself'
beru'	'wash with water'	siberu'	'wash oneself (face, hands)'
gala'	'visibility'	sigala'	'show oneself (from hiding)'
gapung	'hide'	sigapung	'hide oneself'
gegkar	'shake (e.g., tree to make fruit fall)'	sigegkar	'shake oneself to dry off'
kalai	'familiarity'	sikalai	'learn, make oneself familiar with'
laya'	'weakness, softness'	silaya'	'relax one's body'
lenu	'peel off'	silenu	'shed one's skin'
lutak	'dirt'	silutak	'dirty oneself'
ran	'lightness (weight)'	siran	'make oneself lighter'

4.4.1.6 INTRANSITIVE/STATIVE *te-*

The prefix *te-* is moderately productive and may be attached either to roots or, occasionally, to words already marked with either *be-* or *ke-* (§§4.4.1.7–4.4.1.8). In a few cases, *-ng-* is inserted between *te-* and a vowel-initial root. Semantically, verbs bearing the *te-* prefix are either stative or intransitive; verbs in the latter category refer predominantly, though not exclusively, to involuntary or unconscious motion. Those in the former refer to a state resulting from such motion, and especially when marked for the perfective aspect, they may have an inceptive meaning. Affixing a *te-*marked verb with voice morphology (§4.4.2) turns the statives into factitives and the dynamic intransitives into causatives. A small sample of *te-*bearing verbs is given in table 4.15.

TABLE 4.15. WORDS WITH INTRANSITIVE/STATIVE *te-*

Root	Gloss	Prefixed	Gloss
anak	'child'	tenganak	'be born'
bawang	'locality'	tebawang	'reside'
beceng	'act of tripping'	tebeceng	'trip and fall (involuntarily)'
beladut	'wide-eyedness'	tebeladut	'wide-eyed'
keluit	'fishing hook'	tekeluit	'bent back like a fishing hook'
kering	'dryness'	tekering	'dry'
kulub	'lying facing down'	tekulub	'lie facing down'
ok	'an upward look'	tengok	'look upwards'
puyung	'a cone'	tepuyung	'cone-shaped'
rubab	'wide opening'	tekerubab	'opened wide'
ukab	'to open'	tekukab	'(already) open'

4.4.1.7 *be-*: Inanimate or Involuntary Motion

The prefix *be-* is not very productive, attested in no more than a couple dozen forms in Ganang *et al.* (2008). Nearly all these forms are intransitive verbs referring to motion of an inanimate object or involuntary movement of parts of the human body. Some of these verbs may then take *te-* (§4.4.1.6), which makes them into stative verbs referring to the end state of the event referred to by the *be-* verb. They may be made causative through the addition of voice morphology (§4.4.2). A sampling of *be-* verbs is given in table 4.16.

Table 4.16. Verbs with *be-*

Verb	Gloss
bekecu'	'(of a leg) suddenly collapse'
belakad	'fall backwards due to weight on back'
belelut	'(of a tree/pole) bend due to weight on end'
belenet	'(of a sack) shorten and bulge when dropped'
belied	'(of an ankle) sprain'
belulut	'(of a leg) shake rapidly due to cold or shock'
besusui	'slip and almost fall'

A few other words contain a different *be-* prefix, including *begaber* 'take a photograph,' *begadi'* 'work for wages,' and *besilat* 'practice the martial art *silat*,' which plainly do not fit the above description. This mismatch, however, is easily explained: these words are transparent loans of Malay *bergambar*, *bergaji*, and *bersilat*, respectively, altered to fit Lun Bawang phonology. In these cases, the leading *be-* is not this same prefix, but a re-phonologized form of the Malay intransitive prefix *ber-*.

4.4.1.8 The Multifunctional Prefix *ke-*

The moderately productive prefix *ke-* is multifunctional, such that it might be more appropriately described as several homophonous prefixes.[8] One of these functions, seen in several words, means 'produce, bring forth, or emit [substance signified by root],' as in the examples in table 4.17.

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[8] Blust and Trussel (2020) contains no fewer than seven reconstructed prefixes of the shape *ka- in the Austronesian family. Their multiplicity of functions is treated in Blust (2003).

TABLE 4.17. *ke-* AS 'PRODUCE, BRING FORTH, EMIT'

Root	Gloss	Prefixed	Gloss
busak	'flower'	kebusak	'bloom'
bua'	'fruit'	kebua'	'bear fruit'
etut	'flatulence'	ketut	'pass gas'
tai'	'excrement'	ketai'	'defecate'
uta'	'vomit (n.)'	kuta'	'vomit (v.)'

Another common use of the prefix *ke-* corresponds to what Blust (2003:447) calls a "past participle or achieved state." Examples of this use include *kelebpa* 'having had one's pants fall down' (from *lebpa* 'nude') and *kelesu'* 'having had the skin peel off due to an abrasion' from root *lesu'* 'peel skin/bark.'

4.4.1.9 STATIVE *me-*

Perhaps the most productive non-voice affix is the common stative prefix *me-*, which may attach either directly to a root or to a form bearing the *te-*, *be-*, or *ke-* prefixes described above (§§4.4.1.6–4.4.1.8). In its most basic use, it forms verbs more naturally translated into English as adjectives, such as *me-lau'* 'hot,' *me-dita'* 'tall,' *m-abuk* 'drunk,' *me-birar* 'yellow,' and countless others. Its secondary function is to derive stative verbs indicating an ability to perform or propensity to undergo an action, yielding either the meaning 'able to [verb]' or the meaning 'likely to [verb] (by accident).' In this secondary function, it sometimes, inconsistently, takes the form *meke-*, usually before vowel-initial roots.[9] Examples include *meteganang* 'able to lift' (from *ganang* 'lift'), *mekeseb* 'likely to be burned' (from *eseb* 'burn'), *mapuh* 'able to sweep' (from *apuh* 'broom'), and *mebelilid* 'likely to be entangled.' The stative prefix *me-* may not combine with perfective *ne-*, but the latter may replace the former to indicate perfective or inceptive aspect, for which see its section (§4.4.1.10).

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[9]The abilitative *meke-* was historically a distinct prefix, but because (a) the *-ke-* element has been largely lost, causing it to formally merge with *me-* in a majority of cases, and (b) ability/disposition is already a subclass of the stative *Aktionsart*, a strict distinction between them is difficult, if not impossible, to consistently maintain from the standpoint of purely synchronic description.

4.4.1.10 PERFECTIVE *ne-*

Except with vowel-initial underived intransitives (§4.4.1.1.2) and verbs in the patient voice (§4.4.2.2), perfective aspect is marked by *ne-*, which regularly becomes *n-* before a vowel. Depending on the desired meaning, the prefix may be added either directly to a root or before any other verbal prefixes, with the sole exception of stative *me-*, which cannot co-occur with the perfective aspect. When a stative verb is prefixed with *ne-*, the aspect is inchoative, referring to the onset of the designated state.

Similar to the stative *me-* (§4.4.1.9), *ne-* has a secondary, more specific perfective function, which can occur when it attaches either directly to a verb root or to a form bearing a one of the several non-voice prefixes (§§4.4.1.6–4.4.1.8). In this use it sometimes, albeit inconsistently, appears as *neke-*, usually before vowel-initial roots.[10] The *ne-* in this case either indicates that an action happened by accident, or it presents it as an achievement, which the actor 'managed' to do. A few such examples, largely extracted from Ganang *et al.* (2008), are presented in table 4.18, where their meanings are compared to those of their actor voice (AV) counterparts, one of the standard transitive patterns discussed in §4.4.2.1.

TABLE 4.18. PERFECTIVE VERBS OF ACCIDENT OR ABILITY

Root	AV	Gloss	ne- w/o Voice	Gloss
akan	nekuman	'ate'	nakan	'accidentally ate'
apak	nengapak	'chopped something	nekapak	'accidentally chopped'
eseb	nengeseb	'burned something'	nekeseb	'accidentally burned'
keteb	nengeteb	'cut'	neketeb	'accidentally cut'
redu'	nengeredu'	'stepped on'	neredu'	'accidentally stepped on'
tecan	nenecan	'left something behind'	neketecan	'accidentally left behind'
uta'	nenguta'	'intentionally vomited'	nekuta'	'involuntarily vomited'
alap	nengalap	'got, took, caught'	nekalap	'managed to get, take, catch'
beru'	nemeru'	'washed'	neberu'	'managed to wash'
ecam	nengecam	'bought or rented land'	nekecam	'managed to buy/rent land'
lubed	nengelubed	'returned'	nelubed	'managed to return'
pasui	nemasui	'sold'	nepasui	'managed to sell'

[10] Although *neke-* was historically a distinct prefix, for reasons similar to those given in note 9, that distinction is difficult, if not impossible, to consistently maintain today.

4.4.2 VOICE MORPHOLOGY

Transitive verbs in Lun Bawang are ordinarily marked for voice, an important clause-level phenomenon discussed in greater detail in §6.6.3. Every transitive clause in Lun Bawang selects one argument as the "pivot," giving it a privileged syntactic status. One of the indicators of that status is the verb's voice morphology, which refers to the selected argument. Because voice-bearing verbs are ordinarily transitive, affixing voice morphology to an intransitive or stative verb produces a causative or factitive verb, respectively.

In Lun Bawang, the clausal pivot may ordinarily be one of three participants in an event: the agent, the patient, or an instrument. The voice referring to each is known as the actor voice (AV), the patient voice (PV), and the instrumental voice (IV). Additionally, one relic of a former benefactive voice (BV) still remains. An overview of the morphology for the three productive voices is shown in table 4.19. Each voice is then explained and exemplified in detail in its respective subsection immediately below.

TABLE 4.19. VOICE MORPHOLOGY AT A GLANCE

	Conservative Pattern		Innovative Pattern	
	Imperfective	Perfective	Imperfective	Perfective
AV	N-	ne-N-	N-	ne-N-
PV	-in/en	<in>	-in/en	ti-N-
IV	piN-	ne-piN-	piN-	ne-piN-

4.4.2.1 ACTOR VOICE (AV)

4.4.2.1.1 ACTOR VOICE FROM VERB ROOTS. The actor voice prefix consists solely of the morphophoneme *N-*, which varies in form according to the rules of homorganic nasal substitution given in §3.3.1. In the perfective aspect, the AV form takes the *ne-* prefix (cf. §4.4.1.10). Sample paradigms are shown below in table 4.20:

TABLE 4.20. ACTOR VOICE FROM VERB ROOTS

Root	Imperfective AV	Perfective AV	Gloss
peno	meno	nemeno	'steal'
bukut	mukut	nemukut	'punch'
tecan	necan	nenecan	'leave, abandon'
dalan	nalan	nenalan	'walk'
sier	nier	nenier	'see, look'
ketep	ngetep	nengetep	'bite, sting'
gagap	ngagap	nengagap	'shock, startle'
redu'	ngeredu'	nengeredu'	'step on'
laba	ngelaba	nengelaba	'pass by, overtake'
abet	ngabet	nengabet	'tie'

One root, *akan* 'eat,' still follows the otherwise obsolete pattern of forming AV by infixing *<um>*, thus *kuman* rather than *ngakan. Some monosyllabic roots do not undergo nasal substitution, but instead prefix *nge-* to the root. This category of exceptions includes especially onomatopoetic words, such as *kok* 'crow of a rooster,' which becomes *ngekok* when made into a verb. This category also includes any monosyllables, usually loans, that are *not* contracted from earlier disyllables, such as *bom* 'bomb,' which becomes *ngebom*. On the other hand, monosyllables resulting from the contraction of adjacent, usually identical, vowels, often after the historical loss of the intervocalic glottal stop, retain the nasal substitution pattern. Thus, from root *pid* 'wipe' comes AV *mid*, and not *ngepid, as the forms reflect an earlier *pi'id and *mi'id.

4.4.2.1.2 ACTOR VOICE FROM PREFIXED VERBS. If a verb that already bears another prefix is to be put in AV, homorganic nasal substitution is not applied, but *nge-* is used instead. Many verbs bearing the *be-* prefix take *nge- in addition to*, and not in place of, the *be-*. Verbs bearing the *te-* or *pe-* prefixes, as well as a few with *be-* lose those prefixes and take *nge-* in their place.[11] This use is probably to avoid confusion, since applying nasal substitution to a form in *be-* would result in *me-*, homophonous with the common stative prefix (§4.4.1.9), and applying nasal substitution to

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[11] Verbs in *ke-* are not discussed since distinguishing between performing nasal substitution on *ke-* and replacing it with *nge-* is in principle impossible.

a form in *te-* would result in *ne-*, homophonous with the prefix for perfective aspect (§4.4.1.10).[12]

A handful of representative examples are given in table 4.21:

TABLE 4.21. ACTOR VOICE FROM PREFIXED VERBS

Root	Verb	Gloss	AV	Gloss
kuel	bekuel	'coil'	ngebekuel	'coil something'
likui	belikui	'(of a board) twist, warp'	ngebelikui	'twist or warp something'
danak	pedanak	'be taken by surprise'	ngedanak	'take by surprise'
emung	pemung	'gather together'	ngemung	'gather people/things together'
beceng	tebeceng	'trip'	ngebeceng	'trip someone'
kulub	tekulub	'lie facing downward'	ngekulub	'place facing downward'

4.4.2.2 PATIENT VOICE (PV)

Selection of the patient argument as the clausal pivot requires the use of the patient voice (PV). Although not a true passive syntactically, it is sometimes most naturally translated as such. Unlike the actor voice above, PV's imperfective and perfective forms bear little resemblance to one another and therefore require separate treatment.

4.4.2.2.1 IMPERFECTIVE ASPECT. The patient voice in the imperfective aspect is formed by suffixation most often with *-en*, but the variant *-in* is also frequently found.[13] The choice of suffix is lexically determined and phonologically unpredictable. This suffixation can trigger several regular phonological processes, all described in §3.3. Some regular examples are given in table 4.22.

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[12]By contrast, the data in Hemmings (2016) indicate that the closely related Bario Kelabit *does* use nasal substitution on these prefixes. The risk of homophony in that language, however, is somewhat lower, as it has largely lost the stative *me-*.

[13]Ganang *et al.* (2008) contains 307 verbs that form the PV with *-en* and 163 verbs that form it with *-in*.

TABLE 4.22. REGULAR SUFFIXED PV FORMS

Root	PV	Gloss	Phonological Processes
aro	rawen	'be grabbed'	Antepen. neut. (§3.3.2), Diph. restoration (§3.3.12)
bada'	badén	'be shown'	Glottal elision (§3.3.6), 2nd monoph. (§3.3.11)
belih	belien	'be bought'	Glottal elision (§3.3.6)
diu'	diuen	'be bathed'	Glottal elision (§3.3.6)
ecuk	duken	'be ordered'	Antepen. neut. (§3.3.2), Vd. asp. alt. (§3.3.5)
geramit	geremiten	'be scratched'	Antepenultimate neutralization (§3.3.2)
iap	iapin	'be counted'	
keteb	ketebpen	'be cut down'	Voiced aspirate alternation (§3.3.5)
laba	lebén	'be passed'	Antepen neut. (§3.3.2), 2nd monoph (§3.3.11)
puar	puaren	'be mixed'	
riut	riuten	'be sharpened'	
susud	sesudin	'be slid'	Antepenultimate neutralization (§3.3.2)
tebpeng	tebengen	'be felled'	Voiced aspirate alternation (§3.3.5)
ukab	kabin	'be opened'	Antepenultimate neutralization (§3.3.2)

In addition to having an unpredictable suffix, the imperfective patient voice is full of phonological irregularities that affect significant numbers of lexemes but are not systematic. One of these is the sporadic antepenultimate neutralization of *i*, which is normally exempt from that phenomenon. Thus, from *lilid* 'wind or coil' comes PV *lelidin*, and from *titing* 'stretch a piece of rope across an area' comes *tetingen*.

On the other hand, not a few words show an irregular change of an antepenultimate vowel to *i*. Some of these include *lakab* 'take something off a wall,' which becomes *likabin*; *benul* 'push,' which becomes *binulen*; *peno* 'steal,' which becomes *pinawen*; *paté* 'kill,' which becomes *pitayen*; and *pudut* 'build, create,' which becomes *piduten*.

When a mid-vowel finds itself in the penult due to suffixation, it is usually raised to its corresponding high vowel, as in *usong* 'push a long object through a hole,' which becomes *sungen*, and *lusok* 'stick something in mud,' which becomes *lisuken*.[14] This process is not without exception, however, as *ok* 'ladle' becomes *oken*.

A few words undergo metathesis of their consonants under suffixation: *adib* 'slash,' for example becomes *biden*, and *ragem* 'clench the palm' becomes *geramen*. Yet a few others undergo an

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[14]The raising is due to the fact that mid-vowels are generally permitted only in the ultima; see §3.2.2.2.1.

irregular mutation of their initial consonant, such as *ketep* 'bite, sting,' which becomes *gitepen*, or *keteb* 'cut into two or more pieces,' which becomes *gitebpen*. Some roots that end in *-an* lose that *-an* under suffixation; hence, *tecan* 'leave, abandon' becomes *tecin*, instead of expected **tedanin*, and *legkan* 'divorce, release from grip' becomes *legkin* rather than expected **leganin*.

Any phonological irregularity that affects a lexeme's imperfective PV form also affects its other suffixed forms, namely the imperatives, for which see §4.4.3.

4.4.2.2.2 PERFECTIVE ASPECT

Conservative Pattern. In the perfective aspect, PV does not use the suffix used for the imperfective, nor does it use the generic perfective prefix *ne-* (§4.4.1.10). Instead the perfective PV morpheme *<in>* is infixed after the first consonant. If infixed to a disyllabic word with a penultimate schwa, or occasionally /a/, the resulting series of phonological reductions (§3.3.9) creates a form with the appearance of ablaut from /e/ to *i*.[15] When a verb with a prefixed *te-*, *ke-*, or *pe-* is infixed, the /e/ of the prefix is lost, and the nasal of the infix assimilates to the place of articulation of the following consonant. Examples of perfective PV forms are show in table 4.23.

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[15] The term *ablaut* is not used in an absolute sense here since, in its Indo-European context, it usually refers to a direct substitution of one vowel for another; here, rather, the addition of a morpheme triggers a series of phonological reductions that produces the same *result* as if one vowel were substituted for another. Although the *relationship* between such Lun Bawang forms is comparable to that between, e.g., English *sing*, *sang*, and *sung*, the *processes* involved are not comparable—the Lun Bawang forms are derived via evidently still-productive phonological rules operating on still-productive morphemes—, hence their not being subsumed under the same term.

TABLE 4.23. INFIXED PERFECTIVE PV FORMS

Root	Perfective PV	Gloss
abet	inabet	'was tied'
bukut	binukut	'was punched'
ke-labit	kinlabit	'was pulled down'
ke-riki	kinriki	'was fried'
pe-danak	pindanak	'was taken by surprise'
peno	pino	'was stolen'
sier	sinier	'was seen'
te-bukuh	timbukuh	'(a knot) was tied in hair'
tecan	tican	'was left'
te-kulub	tinkulub	'was placed face down'

Innovative Pattern   Among many speakers born around or after the year 1990, a new pattern is replacing infixation for perfective PV formation: these speakers instead take the AV form (§4.4.2.1) and prefix *ti-* to it. This pattern may be indicative of a shift of the voice system toward a morphologically asymmetrical type (see Chapter 7) built on AV as the basic form. A comparison of the conservative and innovative forms is given in table 4.24.

TABLE 4.24. COMPARISON OF PERFECTIVE PV FORMS

Root	Gloss	AV	Conservative PV	Innovative PV
ayud	'write'	ngayud	inayud	tingayud
keteb	'cut'	ngeteb	kiteb	tingeteb
beré	'give'	meré	biré	timeré
redu'	'step on'	ngeredu'	ridu'	tingeredu'
tau'	'do'	nau'	tinau'	tinau'
tibu	'plant'	nibu	tinibu	tinibu

As may be inferred from the last two examples, these innovative prefixed forms likely originate from a reanalysis of the inherently ambiguous perfective PV forms of roots beginning with *t-*. A verb of the form *tinVCVC* can be analyzed as either the conservative *t<in>VCVC* or as the innovative *ti-NVCVC*. The innovators have chosen the second of these options and generalized the pattern across roots of all onsets.

Interestingly, this innovative pattern has appeared independently, at different times, and with varying degrees of consistency, in several Dayic dialects, including Pa' Ruab Lun Bawang, North-

ern Ba' Lun Bawang, Bario Kelabit (Hemmings 2016), and Long Napir Kelabit (Blust 1971). While in some of these cases, these forms are well established, they are in others still new enough that speakers of older generations regard them as "incorrect."

4.4.2.3 INSTRUMENTAL VOICE (IV)

Selection of an instrument as the clausal pivot requires the use of instrumental voice (IV). It is used far less than AV or PV, and not every transitive verb necessarily has an IV form.

IV is formed with the prefix *piN-*, where the *N* represents a variable nasal that undergoes the same process of homorganic nasal substitution (§3.3.1) used in AV. Also like almost all other non-PV forms, it uses *ne-* to mark the perfective aspect (§4.4.1.10). That IV consists of *piN-* added to the root, and not *pi-* added to the AV form, is evident from the form *pingakan* 'be used to eat,' attested in Tuie (1995), which is composed of the base *akan* with a prefix *piN-*. If IV were formed by prefixing *pi-* to the AV form, **pikuman* would be found instead. Table 4.25 provides examples of IV-marked verbs, many drawn from Ganang *et al.* (2008), in both aspects.

TABLE 4.25. VERBS IN THE INSTRUMENTAL VOICE

Root	Imperfective IV	Perfective IV	Gloss
abet	pingabet	nepingabet	'be used to tie'
babeh	pimabeh	nepimabeh	'be used to carry'
diu'	piniu'	nepiniu'	'be used to wash someone'
ebpar	pingebpar	nepingebpar	'be used as a loincloth'
inud	pinginud	nepinginud	'be used as an example'
kuer	pinguer	nepinguer	'be used to bore a hole'
lebin	pingelebin	nepingelebin	'be used to wrap something'
pid	pimid	nepimid	'be used to wipe'
ruruk	pingeruruk	nepingeruruk	'be used to poke into a hole'
tanu'	pinanu'	nepinanu'	'be used to mark ownership'
ukab	pingukab	nepingukab	'be used to open something'

4.4.2.4 FOSSILS OF A FORMER BENEFACTIVE VOICE?

Lun Bawang makes productive use of only three voices, to wit, the actor, patient, and instrumental voices described in the foregoing subsections. One relic, however, points to the former

presence of one other. This verb is *pimaran*[16] 'receive,' a verb form derived from *beré* 'give.' This word appears to contain two affixes, one being the same *piN-* used to mark instrumental voice, and the other is *-an*, doubtless a reflex of the Proto-Austronesian locative voice (LV) suffix. The two probably cooperated to form a benefactive voice (BV), which only this verb retains.

4.4.3 IMPERATIVE SUFFIXES

Today the common method of giving commands is to use a verb's AV or PV form. However, three imperative suffixes, now rarely used, may still be found. They are *-uh*, *-a'*, and *-i'*. These are attached directly to a verb root, which undergoes the same phonological changes, including any irregular ones, that it experiences under PV suffixation (§4.4.2.2). Based on the reconstructions in Ross (2009), the first of these suffixes appears to be a reflex of the Proto-Austronesian PV imperative suffix, the second might be from a PAN PV form used in dependent clauses, and the third either reflects the PAN locative voice (LV) imperative suffix or is of another, uncertain origin. In Lun Bawang usage, however, the difference between them is probably not one of voice, as they all show syntactic behavior associated with PV.

The precise semantics of the third of these suffixes, *-i'* is simply unknown, and given these suffixes' rapid decline, it may never be fully understood. Clayre (1991) speculates, on the basis of similarity to languages of Sabah, that it may have a benefactive undertone, but this speculation is nowhere to be found in Clayre (2005:21), wherein she concedes that its function is "uncertain."

The other two suffixes appear to have a deictic quality to them, with *-uh* being used when the object of the imperative is proximal and *-a'* being used when the object is distal or remote.[17] In support, Clayre (2005:21) reports that her consultants usually translated verbs with *-a'* as 'go and

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[16]Ganang *et al.* (2008) also has *pimaran*, concurring with this author's data. Clayre (2005) records *pimeréan* instead. In either case, the form is unexpected, as the language's regular phonological processes ought to result in **pimerayan*.

[17]The writer here agrees with Clayre (2005) against Ganang *et al.* (2008), the latter of whom presents *-a'* as having a proximal object and *-uh* as having a distal or remote object. The examples encountered in the writer's own work, including in transcribed oral literature (e.g., Langub 2014a:176–7) and in elicitation (FN2:26) are far more consistent with the claims of the former. Whether the discrepancy is due to an editorial error or due to a different, perhaps Sabahan, usage, is uncertain.

[verb]!' These two suffixes may also differ in tone. According to one consultant (FN3:34), an imperative verb with *-uh* sounds quite forceful to speakers and even rude if used in an improper context, especially if directed toward an elder.[18] The *-a'* suffix does not seem to have quite the same forcefulness to it.

For illustration's sake, a few examples of suffixed imperatives are given in table 4.26. Examples of usage are deferred to §8.3.[19]

TABLE 4.26. VERBS WITH IMPERATIVE SUFFIXES

Root	Imperative	Gloss
akan	kana'	'Eat (something over there)!'
akan	kenuh	'Eat (something here)!'
dawar	dari'	'Call (someone)!'
keteb	gitebpa'	'Cut (something over there)!'
lipo	lipawi'	'Jump over (something)!'
papan	peni'	'Feed (someone/something)!'
sier	sira'	'Look (at something over there)!'
sier	siruh	'Look (at something here)!'
tecan	teci'	'Leave (something somewhere)!'

4.5. ADJECTIVES

Lun Bawang has very few roots that can function as adjectives, among which are *do'* 'good,' *dat* 'bad,' *rayeh* 'large,' and *isut* 'small,' the last of which is often clipped to *sut*. These may be used attributively, in which case they follow their head noun, or predicatively, in which case they may precede or follow the noun phrase, though predicate initiality is far more common See, e.g., (1a) above for *rayeh* used as a predicative adjective. Most other roots cannot be used as adjectives; normally stative verbs in either *me-* (§4.4.1.9) or *te-* (§4.4.1.6) must be used instead.

A further device for quasi-adjectival predication is the use of a reduplicated root, after which comes the entity of which the quality is predicated. An example of such usage is the sentence *Awa-awa mo' uih ku rayeh neh* 'I was amazed at its size' (Ganang *et al.* 2008:*awa-awa*), glossed above in (1b). Here *awa* 'love, amazement' is reduplicated, becoming a quasi-adjectival predicate

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[18]This consultant then said that he would fear that his mother was upset if she gave him a command with this suffix.

[19]See also note 2 in Chapter 8 for the vowel variation in the stem for 'eat.'

'amazed,' which is then predicated of *uih* '1SG.' (The intervening *mo'* is a second-position particle, for which see §4.12.) Instead of reduplication, an unreduplicated root may be preceded by *do'*, literally 'good,' but meaning 'very' in this usage. Hence the root *ecang* 'light, daytime' may become adjectival in the phrase *do' ecang* 'very bright.'

4.6. QUANTIFIERS

Lun Bawang quantifiers precede the noun phrases which they quantify. Among the most important are *emung* 'all,' *anid* 'every, each,' *pawa'* 'some, a few,' *mula'* 'many,' and *masi'* 'few.' For examples of the quantifiers in use as well as of the rules governing scope, see §10.5.

4.7. NUMERALS

The numeral system of Lun Bawang is a plain base-10 system without exception or irregularity. Table 4.27 illustrates the forms.

TABLE 4.27. LUN BAWANG NUMERALS

Numeral	Gloss	Numeral	Gloss
eceh	'one'	pulu' eceh	'eleven'
dueh	'two'	pulu' dueh	'twelve'
teluh	'three'	dueh (nge)pulu'	'twenty'
epat	'four'	dueh (nge)pulu' eceh	'twenty-one'
limeh	'five'	meratu	'one hundred'
enem	'six'	meratu eceh	'one hundred one'
tudu'	'seven'	meratu pulu' eceh	'one hundred eleven'
waluh	'eight'	dueh (nge)ratu	'two hundred'
liwa'	'nine'	meribu	'one thousand'
pulu'	'ten'	dueh (nge)ribu	'two thousand'

Multiples of ten, one hundred, or one thousand optionally use a numeral ligature *nge-* (§4.7.1), which is fading from use today, on the multiplied element.

The quantity 'one' may be expressed in several ways. The basic numeral is *eceh*, given in the table above, and *eceh* can indeed be used to quantify a noun phrase. More often, however, except when counting, other means are used. Perhaps the most common is *sebuleng* 'one' made up of *se-*, a variant form for 'one,' and *buleng* 'alone, by oneself.' This *se-* may also be combined with a noun directly or with the numeral ligature *nge-* interposed, for which see §4.7.1. With the numerals

ratu 'hundred,' *ribu* 'thousand,' and a few other words of measurement such as *depeh* 'armspan,' a prefix *me-* indicates this quantity, hence *meratu* and *meribu* in the table above, and *medepeh* 'one armspan.'

Numerals invariably precede the noun phrases they quantify, for examples of which see principally §5.1, as well as §10.5.3, the latter of which also illustrates scope phenomena.

4.7.1 NUMERAL LIGATURE *nge-*

The language makes use of a numeral ligature of the form *nge-*, which prefixes to certain nouns indicating measurements of quantity when quantified by a numeral. In such cases, rather than *eceh* 'one' used in counting, the prefix form *se-* is used instead. The result is forms such as *se-nge-kukup* 'one scoop, double handful,' *se-nge-labung* 'one roll of rattan wire or rope', *se-nge-depeh* 'one armspan,' *se-ng-isut* 'a little,' *se-nge-picut* 'a pinch.'[20] With numbers greater than one, the *se-* is dropped and the appropriate numeral precedes the ligature-root combination, as in *dueh ngedepeh* 'two armspans.'

In practice, the ligature is little used today, often being dropped in favor of using a numeral with a bare noun, including within the numeral system itself; both the older *dueh ngeratu* and the newer *dueh ratu* are acceptable ways of saying 'two hundred.' With single items, the common practice is now to prefix *se-* to the head noun directly, e.g., instead of *sengisut* 'a little,' now *seisut*, usually shortened to *sesut*.[21]

4.7.2 ORDINAL *ke-*

Ordinal numbers are formed via the prefixation of *ke-* to the cardinal numeral. Hence, Lun Bawang has *kedueh* 'second,' *keteluh* 'third,' and so forth. The sole exception is for 'first,' where, instead of **ke-eceh*, *pun-pun*, a reduplication of *pun* 'beginning, source, origin,' is used instead.

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[20]Forms extracted from Ganang *et al.* (2008) and Padan and Ganang (2018:196), where *sengepicut* is also found as *sengpicut*.

[21]Prefixation of *se-* to a noun beginning in a vowel is the only systematic exception to the rule given in §3.2.2.2.2 that a schwa may not immediately precede another vowel.

4.7.3 DISTRIBUTIVE *te-*

Lun Bawang also has a distributive prefix *te-*, found in, for example *teteluh* 'three-by-three, in threes.' For 'one-by-one,' it is combined with *sebuleng* rather than *eceh*, hence *tesebuleng* 'one-by-one, one at a time.'

4.8. ADVERBS

The items used as adjectives in Lun Bawang overlap substantially in form with those used as adverbs, with only syntactic context serving to distinguish them. The most common means of forming adverbs is via reduplication of a root. Hence, for example, from root *gai'* 'frequency, regularity' comes *gai'-gai'* 'often, always,' and from *do'* 'good' comes *do'-do'* 'well, carefully.' Also as with adjectives, an unreduplicated root preceded by *do'* 'good' may be used as an adverbial phrase, such as *do' gai'* 'very often.' Adverbs typically occur in initial position. Such constructions are often found modifying verb roots, in which case they may rather be adjectives predicated of verbal nouns. When found with affixed verb forms, however, they are indubitably adverbial.

More recently, a few new adverbs have been created by adapting the Malay pattern *se*-root-*nya* as *se*-root *neh*.[22] Hence, Malay *seterusnya* 'furthermore' has been calqued as *setecu neh* (from root *tecu* 'continue'), and Malay *sebenarnya* 'actually, in fact' has been calqued as *semetu neh* (from stative *metu* 'true').

Adverbials, especially phrases denoting location or time used in an adverbial manner and modifying an entire clause, may be conjoined to the clause by the use of connective particles in a topicalization-like construction, for which see §§4.12, 8.5.

4.9. AUXILIARIES

Lun Bawang has two important auxiliaries. The first of these is *ruen*, the PV of *tau'* 'make, do,'[23] which is used to construct periphrastic PV clauses, for which see §6.6.3.2.2. The other is

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[22]Malay *-nya* is the 3SG.GEN for that language; Lun Bawang *neh* is therefore its direct cognate.

[23]The relationship is not readily apparent due to sporadic sound changes. The Proto-Dayic root was *taru', with PV *teru'en. The current root and AV forms are the result of a sporadic loss of the intervocalic *-r-*, while the current PV

nan, elsewhere used as a preposition meaning 'to, at, for, with.' In its auxiliary usage, it allows for the selection as pivot of arguments that do not have a dedicated voice (AV, PV, or IV), for which see §6.6.3.4. Perhaps due to the phonetic similarity, some speakers allow *inan* 'have, exist' to be used in place of *nan* with no resultant syntactic or semantic distinctions.

4.10. PREPOSITIONS

Although their syntactic behavior does not differ, Lun Bawang prepositions may be divided into two categories: original prepositions, and recent grammaticalizations. In the former category may be found several monosyllables with short vowels, a rarity among Lun Bawang words. Some of these prepositions include *bang* 'in,' *pa* 'at,' *nan* 'on,' *ret* 'from,' *kuan* 'for,' and *dingan* 'with.' The combination of *ret* and *nan*, usually written as a single word *retnan*, is also found, with the meaning 'from, about, than.' Perhaps the most important of these prepositions is the highly versatile *ku*, which most often marks instruments (in which case translated 'with' or 'by means of') or causes (in which case 'because (of)'). In the latter function, it can take an entire nominalized clause as its object, from which function it has now been grammaticalized as a subordinating conjunction, for which see §§4.11, 9.5.3.

The locative marker *i-*, which functions similarly to a preposition, attaches to a handful of roots. Among others, it may combine with *ruma'* 'house' to form *iruma'* 'at home,' with *dita'* 'above, tallness, height' to form *idita'* 'high up, up above,' with *liang* 'underneath' to form *il-iang* 'downstairs, underneath the house,' or with *beneh* 'lowness, shortness, under, below' to form *ibeneh* 'down below.'

The other category of prepositions is made of nouns and verbs that have been grammaticalized. These include prepositions such as *luun* 'upon, atop,' *liang* 'beneath' (frequently clipped to *yang*), *iring* 'beside,' *emé'* 'to' (from verbal meaning 'go'), and *maya'* 'with, according to' (from verbal meaning 'follow'). Those grammaticalized from nouns that denote a spatial relationship became prepositions from the dropping of *pa* 'at' from the full form of the prepositional phrase. For

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form is the result of a sporadic loss of the first syllable and the regular loss of the intervocalic glottal stop. It commonly loses its leading r- in connected speech and is pronounced [wǝn].

instance, from *pa liang Wat Gerawet* 'beneath Wat Gerawet (the mountain ridge overlooking Long Semadoh from the east),' literally 'at the bottom of Wat Gerawet,' where *liang* is a noun, the *pa* may be dropped, leaving *liang Wat Gerawet* 'beneath Wat Gerawet.' In the absence of the original preposition, the noun *liang*, which denotes a spatial relationship as many prepositions also do, was easily grammaticalized as one. The same is likely true of *luun* 'atop, upon,' *iring* 'beside,' and other similar items.

4.11. CONJUNCTIONS

Today, under the influence of Malay and English syntax, Lun Bawang has developed a large handful of conjunctions for combining words, phrases, and clauses, in the latter case via both coordination and subordination. This situation is not, however, representative of the traditional use of the language, for which reason the traditional alternatives to the use of conjunctions will be referred to as appropriate.

4.11.1 COORDINATING CONJUNCTIONS

Coordinating conjunctions are, for the most part, a recent development in Lun Bawang. First among these is *idi* 'and.' It can coordinate words, phrases, or clauses. Traditionally, however, coordination of units smaller than clauses is done without an overt conjunction, its functional load being carried by list intonation (§5.1). When two names are coordinated, they are traditionally joined by the third-person dual pronoun *didueh* (§5.1). The traditional means of conjoining clauses is to use the multipurpose conjunction *em* (§9.7).

Another prominent coordinating conjunction in Lun Bawang is *iemo'* 'but' (probably a contraction of *ieh mo'* 'it's just/only'), which conjoins clauses, but Malay *tapi'* is now not uncommonly used instead. 'Or' is expressed either by *keh* or Malay *atau*. Malay *jadi'* is sometimes used as 'so,' but the more traditional means of expressing this notion is to place the adverbial phrase *ku idi* 'therefore' after the (clause-initial) predicate of the second clause.

4.11.2 SUBORDINATING CONJUNCTIONS

Among the most important subordinators in Lun Bawang are the following:

- *Pelé* or *pad*, both of which can mean 'in order to' and set off purpose clauses.

- *Na'* 'lest' is also found; this item may also occur at the start of a single independent clause without joining it to another, in which case its meaning is instead 'actually' or 'indeed.'

- *Agan pana'* 'although, even though, even if,' sometimes also *sagan pana'*. *Pana'* may also be used on its own to mean 'however (much).'

- *Kudeng* 'if,' an extension of its original meaning 'as.' Malay *asal* and even *kalau* are sometimes heard instead. Even native *kudeng*, however, is traditionally not often used to subordinate one clause to another, with the particle combination *peh. . . em. . . neh* being preferred instead (§§4.12, 9.5.1).

- *Ku* 'because,' originally a preposition that could take a nominalized clause as a complement, grammaticalized by way of that function into a proper conjunction.

- *Kereb* 'when,' originally a noun meaning 'time' that could take a nominalized clause complement, has by way of that function grammaticalized into a proper conjunction.

- *Ngecekuh* 'because.'

For examples of the above in use, see §9.5.3.

4.12. PARTICLES

The last, but by no means least, of the Lun Bawang word classes is its particles. Correct usage of these monosyllables, some of which may be likened to the glue holding Lun Bawang sentences together, is one of the chief marks of mastery of the traditional language, as opposed to the English-and-Malay-influenced syntax of today's youth. Most of these monosyllables are phonologically enclitic and therefore prone to losing their vowels rather than tolerating hiatus. For instance, the common second-position particle *peh*, if it occurs before a vowel-initial word such as the 2SG pronoun *iko*, will commonly lose all but its onset and fuse with the following word to give, e.g., [piˈkoː], a pronunciation often reflected in the orthography. Similarly, the clause-final particle

em loses its /e/ if it follows a word ending in a vowel (or a vowel plus *-h*); two of the most common combinations include *peh em* becoming *pem* and *dih em* (where *dih* is the remote demonstrative) becoming *dim*. The particles may be subdivided into those which occur approximately in a clause's second position and those which occur at the end.

4.12.1 SECOND-POSITION PARTICLES

Second-position particles are those which occur after the first more or less complete phrase in a clause. A second-position particle will never break up a noun phrase, no matter how complex, or a verbal complex. When the normal predicate-initial word order is used, these particles follow the verb and its non-pivot core argument(s), the latter of which always immediately follows the verb and cannot be separated from it.

The second-position particles are as follows:

- *Meh*, an emphatic particle. For illustration, cf., e.g., (101) in §9.4.

- *Men*, a slightly different flavor of emphatic particle, usually best translated 'actually' or 'obviously' (Jayl Langub, p.c. [22 December 2020]).

- *Peh* indicates topicalization of a phrase or linking (usually via subordination) of a clause to the one that follows. Second-position *peh* is usually accompanied by a final *em*. For examples of usage, see §§5.1, 8.5, 9.5.1.

- *Neh* is best translated 'then' and indicates that its clause follows temporally upon or logically from a previous clause or sentence. This *neh* typically follows a clause-initial voice-marked verb. It is frequently used in conjunction with second-position *peh*, where a clause with *peh* is subordinated to a following clause containing *neh*. In a string of multiple particle-linked clauses, only the last will have second-position *neh*, and all those that precede will contain second-position *peh* along with final *em*. See §9.5.1 for examples of usage.

- *Mo'*, in one of its many uses, is similar to second-position *neh* in linking clauses, except that while *neh* usually follows verbs bearing voice morphology, *mo'* instead follows a root

or a verb marked with one of the *me-*, *te-*, *be-*, or *ke-* prefixes (§§4.4.1.6–4.4.1.9). See §9.5.1 for illustration of its usage. This particle also frequently appears between reduplicated adjectives/adverbs and the modified verb root.

- *Keh* in second position usually means 'really' or 'actually.' Its use is illustrated in, e.g. (51a).

- *Teh* in second position always has a temporal significance, which, depending on the precise context, may be translated 'yet,' 'still,' 'just,' or 'then.' It may, like second-position *neh*, mark temporal succession from a preceding clause carrying second-position *peh* and final *em*. This latter usage is illustrated in §9.5.1. This particle has a variant pronunciation *tek*.

- *Lek* is a peculiar particle in that it is not normally used in everyday speech. It is used only in storytelling, in the *laba'* (approximately 'fairytale') genre, and only in narration, at that. It never occurs in dialogue within the stories, nor does it appear in the occasional poetic portions inserted into what is otherwise an unmetered text. Its purpose may therefore simply be to signal narration within that genre. For this reason, and for lack of a better label, it is glossed NARR throughout this work. When multiple second-position particles co-occur, *lek* always follows the others and occurs immediately before the clausal pivot. Its use is richly attested in Langub (2014a,b), and many of the example sentences drawn thence, especially in Chapter 9, illustrate its use.

4.12.2 CLAUSE-FINAL PARTICLES

Clause-final particles occur exactly where the name suggests. They may, however, be followed by a vocative. These particles are as follows:

- *Kem* expresses "anger [or] disgust" on the part of the speaker (Ganang *et al.* 2008:kem).

- *Lek* in final position introduces a measure of uncertainty into the clause and is often naturally translated 'maybe.'

- *Ké'* is emphatic and occurs most often, though not exclusively, in imperatives. For use, see especially §8.3.

- *Sen* is emphatic, probably in a contrastive sense. It is most often found at the end of the first clause in a series of two were the second introduces an important contrast from the first. See (34a) in §6.6.3.5 and (114) in §9.6 for examples of its use.

- *Keh* in final position may be optionally used to mark a polar question (cf. §8.2.1).

- *Dih* may optionally be used to mark polar and wh-questions (§8.2). It must not be confused with the demonstrative *dih*, which can also appear clause-finally if a clause ends with a noun phrase and no final particles are present.

- *Ko'* is used clause-finally to soften an imperative and may be translated 'please.' See §8.3 for illustration.

- *Teh*, like the homophonous second-position particle, is temporal in signification and usually best rendered 'still,' 'yet,' or 'for a little while.'

- *Peh* in final position is aspectual, marking a change of state, the inception of an act, or the completion of an act. It is usually best rendered 'already' or, if that rendering is unnatural, left untranslated.

- *Em* is an all-purpose particle used in joining clauses. If it co-occurs with other clause-final particles, *em* will always be last. It frequently accompanies the second-position subordinator *peh* (§9.5.1) and also may accompany *agan pana'* 'even though' and *pana'* 'however (much)' (§§9.5.3, 10.4). Although it does not necessarily pattern with the class of conjunctions—it belongs to the end of one clause rather than to the start of the next—, it is glossed CONJ throughout in order to indicate its primary function, which is the joining of clauses.

CHAPTER 5: PHRASE STRUCTURE BELOW THE CLAUSE

5.1. NOUN PHRASES

5.1.1 OVERVIEW

At a glance, a maximal nominal phrase containing all possible elements would be made up of the following pieces and in the following fixed order:

1. Quantifiers and numerals

2. The noun itself

3. A possessor, which may in principle be a simple clitic pronoun or a full nominal phrase

4. Adjective-like modifiers, including stative verbs, unless relativized

5. Relative clauses

6. Demonstratives

Maximal noun phrases containing every element of the above schema, however, do not normally occur, as they would be complex and unwieldy, especially due to the center-embedding of possessor nominal phrases. A few examples of nominal phrases containing several of these elements are shown in (2a–d):

(2) a. *Nominal phrase (FN1:68)*

   dueh   kayuh   luk   me-dita'   inih
   two   tree   REL   STAT-high   this
   'these two tall trees'

   b. *Nominal phrase (Langub 2014a:185)*

   emung   pung   luk   ne-p-emung   nan   patar   liang   puneng   Padian   inih
   all   animal REL   PFV-RECIP-all on   plain   below   headwaters Brunei   this
   'all [you] animals who have gathered on this plain beneath the headwaters of the Brunei River'

c. *Nominal phrase (Ganang* et al. *2008:inerut)*

aweh   luk b<i>la=deh   lak atun   dih
marriage REL <PFV.PV>speak=3PL year before that.REM
'that marriage that they negotiated last year'

d. *Nominal phrase (Ganang* et al. *2008:megalih)*

ubat   luk b<i>ré   duktor negkuh   dih
medicine REL <PFV.PV>give doctor 1SG.OBL that.REM
'that medicine that the doctor gave me'

When a numeral greater than or equal to two is used in a nominal phrase, the pattern is just as in (2a). With 'one,' however, the numeral *eceh* 'one' used in counting is rarely used. More often, *se-* 'one' is prefixed directly to the noun, as in *seco* (< *se-eco*) 'one day' or even *sekilometer* 'one kilometer.' Alternatively, the noun may be preceded by *sebuleng*, a form originating from *se-* 'one' prefixed to *buleng* 'single, alone,' e.g., *sebuleng anak* 'one child.' (Cf. also §4.7.1 for the use of the numeral ligature *nge-* with certain nouns referring to measurements of quantity.)

5.1.2 CONJOINED NOUN PHRASES

Thanks, no doubt, to the influence of Malay and English syntax, conjoined noun phrases can be formed simply by interposition of *idi* 'and' between two nouns or noun phrases. One may, for example, join *kerubau* 'water buffalo' and *becuk* 'monkey' into a single phrase *kerubau idi becuk* 'a buffalo and a monkey' (FN1:118). Traditionally, however, such phrases are rarely used. For non-human nouns, or three or more human nouns together, the common traditional practice is to join them without any conjunction, indicating their belonging together via list intonation, as in (3):

(3) *Conjoined noun phrase without conjunction (Langub 2014a:160)*

luang, lulud,   bung,   bisusung   <in>uit=neh
carp type.of.fish giant.river.eel giant.freshwater.eel <PFV.PV>bring=3SG.GEN
'He brought carp, *lulud*, rivel eels, and freshwater eels.'

For two human nouns, on the other hand, including and especially personal names, the traditional means of conjoining them is via the appropriate nonsingular pronoun. Though *iUpai idi iLabo* is an acceptable and intelligible way to say 'Upai and Labo,' the more authentic means of

doing so is to interpose the third-person dual pronoun, i.e., *iUpai didueh iLabo*. If a conjoined nominal phrase includes a nonthird person, the appropriate pronoun is given first, followed by the name(s) of the third-person(s) included. For instance, to say 'Tadem and I,' one says *kai dueh iTadem*, which is the first-person exclusive dual followed by Tadem's name. The same can be seen in the pronominal forms that refer to familial relations, such as *kai ngediruh* 'my spouse and I' and other such forms as given in table 4.7 in §4.3.2.

5.2. ADJECTIVAL PHRASES

Because stative verbs handle much of the work of adjective-like description, true adjectival phrases are not often used other than for modification of an adjective's degree. In such a phrase, the word bearing the adjectival force always occurs in the root form even if the notion is elsewhere conveyed via a stative verb. Some of the most common modifiers of degree include *ba* 'very,' *pelaba* 'very, exceedingly, too (much),' *tu-tu* 'really, truly,' and *sesut* 'a little.' Some of these precede an adjective, while others follow. With *rayeh* 'large,' then, one can form phrases such as *ba rayeh* 'very large,' *pelaba rayeh* 'too large,' *rayeh tu-tu* 'really large,' and *rayeh sesut* 'a bit large.'

When used attributively, an adjectival phrase follows its head noun and may even be relativized. When used predicatively, it may precede or follow the modified noun, though precedence is the traditional and still more common order. Two predicative adjectival phrases (bolded) preceding their subjects are shown in (4a–b), the former of which may be compared to (1a).

(4)   a. *Predicative adjectival phrase*

        Ba   rayeh *bua' bong   inih.*
        very large   fruit banana this
        'This banana is very large.'

   b. *Predicative adjectival phrase (FN1:100)*

        Isut tu-tu   *i=Eva   ret   ni=Ethan.*
        small REDUP-true NAME=Eva from NAME.OBL=Ethan
        'Eva is much smaller than Ethan.'

Adjectival phrases are commonly found in comparisons (for which see §10.1). Such constructions, like (4b) often also include a prepositional phrase containing the object of comparison. That the prepositional phrase belongs to the adjectival phrase is by no means certain since the subject intervenes in between the predicate and the prepositional phrase. Doubtless some syntacticians will answer in the affirmative, but this question is one centered not on the facts of the Lun Bawang language, but on theories of syntax and perhaps movement, a debate into which this descriptive work shall not enter.

5.3. PREPOSITIONAL PHRASES

Prepositional phrases behave exactly as their name suggests—with prepositions preceding their objects—and therefore require little explanation. Perhaps the most versatile of the prepositions listed in §4.10 is *ku*, which most often marks instruments or causes, among its other functions. It is not infrequently found with a nominalized clause as its object, the nominalization of which is evident from the presence of a demonstrative after the clause. The examples in (5) illustrate various sorts of prepositional phrases. Note in particular (5e–f), which contain nominalized clauses, bracketed for clarity, as the object of the preposition; probably from this usage, *ku* was grammaticalized as a subordinating conjunction (cf. §9.5.3). Note especially (5f), where the phrase with the nominalized clause intervenes between arguments of the matrix clause, which cannot occur with the use of *ku* as a true conjunction.

(5) a. *Prepositional phrase with* nan *'on' (Ganang et al. 2008:*kana'*)*

    Kan-a'   *luba'*   *luk* **nan** *téng*   *ineh.*
    eat-IMPER.DIST cooked.rice REL on   eating.mat that.DIST
    'Eat the rice on the mat.'

   b. *Prepositional phrase with* ret *'from' and* bang *'in' (Ganang et al. 2008:*ngalo*)*

    N-(t)utun ng-alo   *pung* **ret bang** *lubang kayuh luk dai' dita' dih*
    AV-try   AV-reach.above animal from in   hole   tree   REL there tall   that.REM
     ideh.
     3PL.PVT
    'They are trying to reach and get the animal from inside that hole in the tree up there.'

c. *Prepositional phrase with* ku *'because of' (Langub 2014a:177)*

Na   keli'   me-lau',   na   keli'   me-pering neh ieh   ineh   peh,
NEG know STAT-hunger, NEG know STAT-thirst then 3SG.PVT that.DIST already,

  ku   awang   niat=neh.
  CAUSE happiness spirit=3SG.GEN

'He then knew neither hunger nor thirst on account of his happiness.'

d. *Prepositional phrase with* ku *'because of' (Langub 2014a:177)*

*N-(t)akap akan pana' na   teh me-tau' nineh   peh,   **ku**   susa',*
AV-seek   food even NEG yet STAT-do 3SG.DISTAL already, CAUSE distress,

  ku   leso   niat=neh.
  CAUSE sorrow spirit=3SG.GEN

'He could not even manage to look for food because of his distress and sorrow.'

e. Ku *with nominalized clausal object (Ganang* et al. *2008:*dat ali*)*

*Pelaba dat ali   kai   **ku**   [[t<i>can   muyuh] dih]*
too   bad silent 1PL.EXCL CAUSE [[<PFV.PV>leave 2PL]   that.REM]

'We were very lonely because you left.'

f. Ku *with nominalized clausal object (Ganang* et al. *2008:*burung*)*

*M-(b)urung negkuh   **ku**   [[uih   na   awan] dih]   muyuh neh.*
AV-gossip   1SG.OBL CAUSE [[1SG.PVT NEG spouse] that.REM] 2PL   that.DIST

'You are gossiping about me because I do not have a spouse.'

5.4. VERBAL COMPLEXES

The term "verbal complex" is employed here instead of the more common "verb phrase," as the latter runs the risk of evoking innumerable theoretical assumptions that do not easily apply to the Lun Bawang phenomena in this section. "Verbal complex" is a convenient shorthand for the verb and those dependents which display, in their behavior, an obviously close relationship to it. In a transitive clause, this refers to the verb and whichever of its core arguments—agent and patient—is not selected as the clausal pivot, or both if the instrumental voice (IV) or relic benefactive voice (BV) is used. The verbal complex may optionally also include adverbials. (Cf. §6.6.1 for a definition of *pivot* and §6.6.1 for a definition of *core argument*.)

Non-pivot core arguments are tightly bound to the verb, and no other word may separate them from it. A non-pivot agent, if present, immediately follows the verb, with a non-pivot patient appearing right afterward. This phrase consisting of the verb and its non-pivot core arguments

may not be broken up by any other word, whether the pivot argument or even a second-position particle, which must follow the entire verbal complex. Some basic transitive clauses illustrate the inseparability of the verb and its non-pivot core argument in (6), with the verbal complexes bolded. Any of the logically possible permutations of word order other than those shown in the examples are ungrammatical.

(6) a. *AV sentence with verbal complex bolded (FN2:20)*

      M-(b)ukut neneh   uih.
      AV-punch 3SG.OBL 1SG.PVT
      'I hit him.'

    b. *AV sentence with verbal complex bolded (FN2:20)*

      Uih   **m-(b)ukut neneh**.
      1SG.PVT AV-punch 3SG.OBL
      'I hit him.'

    c. *PV sentence with verbal complex bolded (FN2:20)*

      Bekut-in=kuh   ieh.
      punch-PV=1SG.GEN 3SG.PVT
      'I hit him.'

    d. *PV sentence with verbal complex bolded (FN2:20)*

      Ieh   **bekut-in=kuh**.
      3SG.PVT punch-PV=1SG.GEN
      'I hit him.'

In predicate initial clauses, with second-position particles, the particles follow the whole verbal complex, separating it from the pivot argument, as in (7):

(7) *Second-position particles separate verbal complex from pivot (Langub 2014a:166)*

Tec-in *i=Tuk*   **Pelanuk**   *neh lek* *i=Buayeh*   *ineh.*
leave-PV NAME=Mr. Mouse-deer then NARR NAME=crocodile that.DIST
'Mouse-deer then left Crocodile.'

Other modifiers such as prepositional phrases must follow the verb-argument complex, but that they can still form part of the verbal complex is evident from examples such as (8), where the second-position *peh* falls after the prepositional phrases rather than immediately after the verb:

(8)   *Prepositional phrase precedes particles as part of verbal complex (Ganang* et al. *2008:*reruen*)*

T<em>urun   ret   Medeleng emé' Sipitang peh   iko   em...
<INTRANS>descend from Medeleng go   Sipitang SUB 2SG.PVT CONJ...
'If you go down from Medeleng to Sipitang...'

This configuration of verbal complexes changes slightly when auxiliaries are used. In those cases, the agent, which is always non-pivot,[1] obligatorily intervenes between the auxiliary and the main verb unless it is omitted altogether. When a non-pivot patient is present, it follows the main verb immediately. No other words or phrases may break up this auxiliary-agent-verb-patient complex. One is given by way of illustration in (9).

(9)   *Verbal complex configuration with an auxiliary present (FN1:75)*

Lemulun *luk* **inan=kuh**   **ne-m-(b)eré apuh   ineh**...
person   REL AUX=1SG.GEN PFV-AV-give broom that.DIST...
'The man to whom I gave that broom...'

If, however, the auxiliary is used to form the periphrastic PV (§6.6.3.2.2), then the patient, which is the clausal pivot, is subject to the normal rules on pivot placement and does not make up part of the verbal complex in the sense of the term as used here.[2]

(10)   *Verbal complex in a periphrastic PV clause (Ganang* et al. *2008:*mengel*)*

Ruen=muh   **m-(b)engel** ku   uni   tawak ineh   ideh.
do.PV=2SG.GEN AV-deaf   INST sound gong that.DIST 3PL.PVT
'Deafen them with the sound of the gong.'

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[1]This fact is so because auxiliaries are used either for forming periphrastic PV (§6.6.3.2.2) or selecting a nominal without a dedicated voice as pivot (§6.6.3.4).

[2]The placement of the pivot after the prepositional phrase *ku uni tawak ineh* in (10) indicates that here, too, the prepositional phrase is part of the verbal complex.

CHAPTER 6: MONOCLAUSAL CONSTRUCTIONS

6.1. PREDICATE NOMINALS

Lun Bawang lacks a copular verb to link together a subject and a predicate nominal. Clauses that equate two nominals or otherwise predicate one of the other do so by simple juxtaposition. If one of the two is a pronoun, it is very often accompanied by either *inih* 'this' or *ineh* 'that.' The nominals may occur in either of the two possible orders of subject-predicate or predicate-subject, with discourse context serving to disambiguate. Several examples are shown in (11):

(11) a. *Predicate nominal (Ganang et al. 2008:*abud*)*

    Ineh   abud=neh   peh.
    that.DIST end=3SG.GEN already
    'That is the end.'

   b. *Predicate nominal (Ganang et al. 2008:*lek*)*

    Ieh   ineh   lek.
    3SG.PVT that.DIST maybe
    'Maybe that is it.'

   c. *Predicate nominal (Langub 2014a:173)*

    "Iko   ineh   sia'-sia'   dipul,"   ki=Buayeh   lek.
    2SG.PVT that.DIST REDUP-red skewered.meat QUOT=Crocodile NARR
    ' "You're red skewered meat!" said Crocodile.'

   d. *Predicate nominals (Langub 2014a:159)*

    "Iko   lemulun, uih   pana' lemulun,"   ki=Buayeh.
    2SG.PVT person 1SG.PVT also person   QUOT=Crocodile
    ' "You are a man, and I am also a man," said Crocodile.'

   e. *Predicate nominals (Langub 2014a:159–60)*

    "Idé reca' bang ebpa' inih, keli'=muh?   Na   uih?"   ki=Buayeh.
    who king in   water this know=2SG.GEN NEG 1SG.PVT QUOT=Crocodile
    ' "Do you know who is the king in this river? Is it not I?" said Crocodile."

f. *Predicate nominal (Langub 2014a:154)*

"i=Awang   Muda anak Raja Yang   Langit uih   inih," keneh.
NAME=Awang Muda child king beneath sky   1SG.PVT this   3SG.QUOT
' "I am Awang Muda, the son of the King Beneath the Sky," he said.'

g. *Predicate nominal (Langub 2014a:185)*

"Inih putut   bisara' i=Buayeh   didueh i=Sapi'   dih   peh,"
this   conclusion trial   NAME=Crocodile 3DU   NAME=Cow that.REM already
   ki=Tuk   Pelanuk.
   QUOT=Mr. Mouse-deer
' "This is [my] judgment in the case of Crocodile and Cow," said Mouse-deer.'

6.2. ADJECTIVAL PREDICATION

Adjectival predication is similar to nominal predication in that, owing to the lack of a copula, it is accomplished simply by juxtaposition of the subject and predicate. Either of the two possible orders is acceptable, but predicate-initiality is preferred. As will be evident from the examples in (12), adjectival predication with nominal roots is commonly used to express notions that would be conveyed via adverbs in English.

(12) a. *Predicate adjective (Blust 1971)*

     Ba   rayeh tangi' anak dih.
     very large cry   child that.REM
     'The child's cry is very loud.'

  b. *Predicate adjective (Blust 1971)*

     Ba   dat derut=muh.
     very bad sewing=2SG.GEN
     'You sew very badly. (lit.: Your sewing is very bad.)'

  c. *Predicate adjective (Ganang et al. 2008:rarai-rarai)*

     Rarai-rarai mo' kuyu' i=Tuked   dih   ku   mon=neh.
     REDUP-torn PTCL shirt NAME=Tuked that.REM CAUSE old=3SG.GEN
     'Tuked's shirt is all torn up because it is old. (lit. 'because of its oldness')'

  d. *Predicate adjective (Ganang et al. 2008:momol)*

     Momol-momol   mo'   tang kuyad dih   kuman bua' timun   ret
     REDUP-full.mouth PTCL mouth monkey that.REM eat.AV fruit cucumber from
      nan lati' kidih.
      on farm 1SG.REM
     'The monkey's mouth was very full, having eaten cucumbers from my farm.'

e. *Predicate adjective (Ganang* et al. *2008:*pesuk-pesuk*)*

Pelaba   pesuk-pesuk   mo'   uih   ku   bala=muh   inalem
too   REDUP-disappointed PTCL 1SG.PVT CAUSE word=2SG.GEN   yesterday

dih   kemuh   leh.
that.REM 2SG.QUOT   VOC
'I was very disappointed with your words yesterday, you know.'

6.3. EXISTENTIALS

Existential sentences in Lun Bawang come in three types: simple, quantified, and negative, each with slightly different syntactic behavior. The first type, the simple positive existential, uses *inan* 'have,' which must precede the subject. This usage is illustrated in (13):

(13) a. *Simple positive existential (Langub 2014a:170)*

"Bada, inan lemulun bang bada inih?" ki=Tuk   Pelanuk   lek
sand   have person in   sand this   NAME.QUOT=Mr. Mouse-deer NARR

ng-itun.
AV-ask
' "O sand, is there anyone in this sand?" asked Mouse-deer.'

b. *Simple positive existential (Ganang* et al. *2008:*eput*)*

Eput   tana' inih peh em   inan mo'   lemulun.
all.over earth this TOP CONJ have PTCL person
'All over the world, there are people.'

c. *Simple positive existential (Ganang* et al. *2008:*kureb*)*

Iedih   peh inan anak adi' decur em   iedih   neh nan dawa' anak adi'
there.REM SUB have youth   female CONJ there.REM then AUX group youth

delai kureb.
male gather
'Wherever there are girls, there the boys gather.'

When the subject of the existential is quantified, however, *inan* is not used, and the subject is instead introduced via a quantificational predicate, as shown in (14):

(14) a. *Quantified existential (Ganang* et al. *2008:*anged*)*

Pelaba anged pirit   nan lati' kai   dih.
too   many sparrow   at   farm 1PL.EXCL that.REM
'There are so many sparrows at our rice field.' (lit. 'The sparrows at our farm are very many.')

b. *Quantified existential (Ganang et al. 2008:*kelikasan*)*

Pelaba ula'   lawid bang Ebpa' Sia' ineh.
too   many fish   in   Water Red that.DIST
'There are too many fish in the Red River.' (lit. 'The fish in the Red River are too many.')

c. *Quantified existential (Ganang et al. 2008:*silubid*)*

Na   si-lubid nan irang ineh,   m-ula'   tebpa' nan ineh.
NEG MID-roll on   slope that.DIST STAT-many thorn   on   that.DIST
'Don't roll down the slope. There are many thorns on it.' (lit. 'The thorns on it are many.')

The last type, the negative existential, might be considered a subtype of the quantified existential, using *na* 'no, not' as the quantifier, as illustrated in (15):

(15) a. *Negative existential (Ganang et al. 2008:*inapih*)*

Na   ku idi   lawid bang ineh.
NEG therefore fish   in   that.DIST
'That is why there are no fish in it [the river].' (lit. '…no fish are in it.')

b. *Negative existential (Ganang et al. 2008:*dat kebangun*)*

Na   ku idi   padé bang lepo   nineh.
NEG therefore rice   in   granary 3SG.DIST
'That is why there is no rice in his granary.' (lit. '…no rice is in his granary.')

c. *Negative existential (Ganang et al. 2008:*nepesuk*)*

Na   tupu baka   nan pulung.
NEG at.all wild.boar in   jungle
'There were no wild boar at all in the jungle.' (lit. 'No wild boar at all were in the jungle.')

6.4. PREDICATING POSSESSION

For predicating possession, two strategies are available. The first is to use *kuan* 'for; own,' which, though often a preposition, behaves in this usage not unlike a verb. It allows pronominal forms and word order to follow the patterns for either AV (16a–b) or PV (16c–d) (cf. §6.6.3), though the latter is in principle indistinguishable from a prepositional use. Some sample possessive clauses using *kuan* are given in (16).

(16) a. *Possessive* kuan *with AV syntax (Ganang* et al. *2008:*daneh*)*

Ideh   *kuan kerubau daneh.*
3PL.PVT own   buffalo   those
'Those buffalo are theirs.'

    b. *Possessive* kuan *with AV syntax (Ganang* et al. *2008:*sidih*)*

Sidih   *peh kuan anak inih em,*   *emé' ieh*   *ng-alap neneh.*
whoever TOP own   child this CONJ go   3SG.PVT AV-take 3SG.OBL
'Whoever owns this child, let her come and take him.'

    c. *Possessive* kuan *with PV syntax (Ganang* et al. *2008:*perud*)*

Kuan=muh   *perud*   *karit*   *inih ko'.*
for=2SG.GEN permanently parang this PTCL
'This parang is for you to keep, okay?'

    d. *Possessive* kuan *with PV syntax (Ganang* et al. *2008:*kuan*)*

Kuan idé   *surat inih?*
for   who letter this
'For whom is this letter?' or 'To whom does this letter belong?'

The second strategy for possessive predication is to use the pronouns of the possessive series, or, in the case of personal names or human nouns, the corresponding marker *di*. This means of indicating possession is likely a metaphorical extension of these forms' original and now otherwise obsolete locative function. Used attributively, these forms tend to, but need not necessarily, precede the possessum (e.g. *diko anak* 'your child'). As predicates, they may precede or follow the subject. This predicative use (bolded) is illustrated in (17).

(17) a. *Possession with* di- *(Ganang* et al. *2008:*duih*)*

Diduih   *dih*   *ineh.*
1SG.POSS that.REM that.DIST
'That is mine.'

    b. *Possession with* di- *(FN2:77)*

Sineh   **diduih**,   *sineh*   **di=***tamam.*
that.SPEC 1SG.POSS that.SPEC NAME.POSS=father.2SG
'That one [mountain] is mine, and that one [mountain] is your father's.'

Both the possessive pronouns and the *kuan* strategy can be seen together in (18):

(18) *Possessive clause with both* kuan *and possessive pronouns (Ganang et al. 2008:*pelibal*)*

Pe-libal *kiteh* *kerita'. Diduih* *inih kuan=muh* *em* *diko*
RECIP-exchange 1DU.INCL car 1SG.POSS this for=2SG.GEN CONJ 2SG.POSS
ineh *kuan=kuh.*
that.DIST for=1SG.GEN
'Let's exchange cars. You take mine, and I'll take yours.'

6.5. INTRANSITIVE CLAUSES

Dynamic and stative intransitive clauses behave similarly and are therefore treated together here. They require very little comment other than that they strongly prefer predicate-initial word order. Certain statives that express ability or propensity take two arguments and therefore interact with voice; they are therefore treated separately in §6.6.3.5. A few basic statives with a single argument are shown in (19), followed by basic intransitives in (20), with some derived intransitives in (21).

(19) a. *One-argument stative*

   M-awer *lawé=muh.*
   STAT-fast travel=2SG
   'You walk quickly.' (lit. 'Your traveling is fast.')

   b. *One-argument stative (Langub 2014a:162)*

   Me-lak *peh lek nuba' nidih* *em,* *or-en=neh* *neh lek*
   STAT-cook SUB NARR rice 3SG.REM CONJ ladle-PV=3SG.GEN then NARR
   ieh.
   3SG.PVT
   'When his rice was cooked, he [Mouse-deer] scooped it.'

   c. *One-argument stative (Langub 2014a:163)*

   Me-lau *neh lek i=Tuk* *Pelanuk* *ineh.*
   STAT-hunger then NARR NAME=Mr. Mouse-deer that.DIST
   'Then Mouse-deer was hungry.'

(20) a. *Basic dynamic intransitive (Langub 2014a:53)*

   Ne-s\<em\>uet *peh lek i=Labau* *dai' ruma' peh* *kedih*
   PFV-\<INTRANS\>enter SUB NARR NAME=Labau there house already that.REM.QUOT
   em...
   CONJ
   'When Labau had entered the house, they say...'

b. *Basic dynamic intransitive (Langub 2014a:162)*

*Nge-kok peh lek   dawa' lal,   **t<um>ui**   neh lek   i=Tuk*
AV-crow SUB NARR group chicken <INTRANS>wake.up then NARR NAME=Mr.
   Pelanuk   ineh   emé' nge-lak.
   Mouse-deer that.DIST go   AV-cook
'When the roosters had crowed, Mouse-deer woke up and went to cook.'

(21)   a.   *Intransitive of inanimate motion (Ganang et al. 2008:belalu')*

*B<in>itung=kuh   peh bul dih   nan bangar em, **be-lalu'***
<PFV.PV>throw=1SG.GEN SUB ball that.REM on   floor   CONJ INAN-bounce
   mo' ieh.
   PTCL 3SG.PVT
'When I threw the ball on the floor, it bounced.'

b.   *Achieved state (Ganang et al. 2008:ilep)*

*<In>iup=kuh   peh lapung dih   em, **k-ilep**   mo'*
<PFV.PVblow=1SG.GEN SUB lamp   that.REM CONJ, ACH-extinguish PTCL
   ieh.
   3SG.PVT
'When I blew on the lamp, it went out.'

c.   *Achieved state (Ganang et al. 2008:kelebpa)*

*Ne-putut peh giret kidih   em, **ke-lebpa**   mo' uih.*
PFV-break SUB belt 1SG.REM CONJ ACH-nakedness PTCL 1SG.PVT
'When my belt broke, my pants fell down.' (more literal: '…I was naked.')

d.   *Derived intransitive of bodily motion (Ganang et al. 2008:tepigkir-tepigkir)*

Iné'   peh lematek dih   nan ticu'=kuh   em, tepigkir-te-pigkir
go.PFV SUB leech   that.REM on hand=1SG.GEN CONJ REDUP-MOT-shake.hand
   kegkuh   pana'   em, na teh ieh   buro.
   1SG.QUOT although CONJ NEG yet 3SG.PVT flee
'When the leech got onto my hand, no matter how much I shook my hand, it still would
not leave.'

6.6. TRANSITIVE CLAUSES

The Lun Bawang transitive clause is entwined with several closely connected structures and

concepts, none of which can be properly understood independently of the others. In particular, the

transitive clause is tightly bound up with a set up phenomena reflecting the concept of voice. Voice,

in turn, is dependent on the the grammatical relations expressed by the language. Grammatical

relations must therefore first be carefully defined so as to make clear what exactly voice is. Only then will a full grasp of the structure of a transitive clause be possible.

6.6.1 GRAMMATICAL AND THEMATIC RELATIONS

Lun Bawang clausal morphosyntax cannot be understood apart from voice, which is the mapping between two sets of relations, one semantic and the other syntactic. The two chief semantic relations are those of **agent** and **patient**. These terms are used not according to strict definitions of thematic roles, but rather loosely, in a manner that corresponds to Dowty's (1991:572) "proto-agent" and "proto-patient" or Comrie's (1978) A and P macro-roles: In any clause with more than one participant, one of them will almost always be more agent-like than the others, and another will almost always be more patient-like than the others. Among other properties, the prototypical agent is likely to be animate, to act volitionally, and to affect another participant. Whichever argument matches this description most closely, however imperfectly, may be termed the agent. Likewise, the prototypical patient is likely to be inanimate, to experience a change of state, to be "affected by the act of another participant" (Dowty 1991:572), or even to have its very existence depend on the event denoted by the verb. Whichever argument matches this description most closely, however imperfectly, may be termed the patient. These two roles are present in every transitive Lun Bawang clause. At times, other, more specific roles, such as recipients and instruments may also come into play.

On the syntactic side, four notions are of critical importance. The first is that of a *core argument*, of which the Lun Bawang transitive clause always has two. A core argument is a nominal whose relationship to the predicate is not mediated by a meaningful element such as a preposition or oblique case marker.[1] This definition does not exclude human non-pivot patients from core argument status, since the oblique (differential object) marking it receives is semantically vacuous. Whether recipients are core arguments however, is doubtful, as they are invariably marked by either a preposition or oblique. A further reason to doubt the core status of recipients is that,

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[1]This formulation comes via William O'Grady (p.c.), from Kiparsky (1987), the original of which appears now to have vanished.

with very few (and highly marked) exceptions, a non-pivot agent or patient, indubitably a core argument, always falls within the verbal complex (§5.4), but a recipient never does so.

The second critical notion is the **subject**, which may for the moment be understood as a predicate's most prominent core argument (cf. Chapter 7 for explanation of this term). In a Lun Bawang transitive clause, the terms *agent* and *subject*, though distinct in sense, always have the same denotation.[2] The third of these notions is the **object**, which refers to any non-subject core argument. The term thus defined, a clause may in principle have more than one object, but since Lun Bawang does not appear to have true ditransitives (§6.6.4), the terms *patient* and *object* will always have the same denotation.

The last of these syntactic notions, and perhaps the most important for understanding Lun Bawang voice, is the **pivot**, which refers to an argument holding a privileged syntactic status determined by voice selection. Every clause has one and only one pivot, which bears the following three characteristics:

1. The pivot has a dedicated position in the clause's word order off-limits to any other argument. It usually follows the verbal complex, but it may also, unlike any other argument, be placed preverbally or even dislocated into the clause's left periphery.

2. If the pivot is pronominal, it will take the distinctive pivot pronoun form given in table 4.2 in §4.3.1.

3. The pivot, and only the pivot, may be targeted for relativization and argument sharing in multiclausal constructions (cf. Chapter 9); this requirement may be termed the *pivot-only* constraint.

Unlike the notions of subject and object, whose relationship to the agent and patient are invariant, the syntactic pivot may belong to almost any thematic category, be it agent, patient, recipient, instrument, or some other. This choice lies at the heart of Lun Bawang voice and has significant repercussions for the rest of clausal morphosyntax.

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[2]Proof of this claim is provided along with the more detailed explanations of these terms in Chapter 7.

6.6.2 BASIC CLAUSE STRUCTURE

With the foregoing terms now defined, prior to exploring voice, the next expedient step is to first examine the structure of the clause prior to voice and pivot selection. Clauses lacking voice do not normally stand alone and are often nominal, but in spite of this fact, they are the optimal place to begin looking at transitive clause structure because they present the basic pattern on which every voice is a variation.

In a clause with two core arguments, the most basic structure is just like that of a verbal complex (§5.4). The verb comes first, followed by the agent and then the patient. If other participants are included as obliques or in prepositional phrases, they will follow the two core arguments. The agent, which always follows the verb, takes the (often enclitic) genitive form if pronominal (cf. table 4.3 in §4.3.1). The patient, which follows the agent, undergoes differential object marking. If the patient is human (or an anthropomorphized animal, in some literary genres), it will be marked as an oblique; a pronoun will take the oblique form (cf. table 4.4 in §4.3.1), a personal name or title will be marked with *ni*, and any other human (or anthropomorphized) noun will be marked with *ne-*. Non-human nominal patients, by contrast, receive no oblique marking at all. Examples (22a–b) illustrate two such examples (voiceless clause bolded):

(22)   a.   *Basic voiceless clause (Langub 2014a:183)*

      *Kudeng apeh **tulong=muh**   **neneh**?*
      as   what help=2SG.GEN 3SG.OBL
      'How did you help him?' (more lit. 'What was your helping him like?')

    b.   *Basic voiceless clause (FN2:57)*

      *Ba   becé **uyo=neh**   **negkuh**.*
      very stupid insult=3SG.GEN 1SG.OBL
      'It was very stupid for him to insult me.' (lit. 'His insulting me was very stupid.')

6.6.3 VOICE

The quintessential transitive Lun Bawang clause may be thought of as built off the basic structure introduced in the previous subsection through a series of modifications determined by pivot and voice selection. One argument in the clause is chosen as the pivot, which receives a privi-

leged syntactic status. The structure of the clause will then be arranged in such a way as to reflect that selection. Firstly, the verb (unless stative, for which see §6.6.3.5) will receive morphological marking to reflect the appropriate voice (cf. §4.4.2). If the agent is chosen, the verb is marked for AV, if the patient is chosen, the verb is marked for PV, and if an instrument is chosen, the verb is marked for IV. The selection of any other argument as pivot necessitates the use of a periphrastic construction employing an auxiliary, while the main verb is marked for AV (§6.6.3.4).[3] The pivot itself is placed not in the default position shown in the previous subsection for its thematic role, but outside the verbal complex, normally afterward, though it may precede. Lastly, the pivot, if pronominal, takes the dedicated pronoun form from table 4.2 in §4.3.1. If nominal, it will bear no case marking (e.g., a human patient does not receive its normal differential oblique marking if selected as pivot). The following subsections illustrate how clauses are constructed in each of the three major voices, and for selection of other arguments as pivot. Then follows a treatment of some constructions that do not bear overt voice morphology but nonetheless appear to interact with the other characteristics of voice.

6.6.3.1 ACTOR VOICE

Actor voice (AV) is used when the agent is selected as the clausal pivot. AV is marked on the verb via homorganic nasal substitution (§4.4.2.1) and with an additional prefix *ne-* to indicate perfective aspect (§4.4.1.10). The agent/subject argument, if pronominal, takes the dedicated pivot form instead of the genitive form that it would take otherwise. Additionally, rather than following the verb immediately, as it would outside AV, the agent occurs either after the verb-object complex or preverbally. The patient argument retains its default position and, if human, is marked as

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[3]The question of whether one voice is the "default" is not at all clear. The fact that lexical verbs in periphrastic constructions always take AV marking does indeed point toward AV as a morphosyntactic default. AV is also the most often produced in response to a contextless stimulus for elicitation. On the other hand, traditional oral literature tends to employ PV rather equally often if not more so. Note again the innovations in verb marking among younger speakers given in table 4.19 in §4.4.2, which are suggestive of an ongoing transition toward building other voices from a default AV.

an oblique. Examples (23a–d) illustrate simple AV clauses, with the pivot arguments and voice morphology bolded:

(23) a. *AV sentence with preverbal pivot*

  Uih **ng**-*abet kayuh.*
  1SG.PVT **AV**-tie log
  'I am tying a log.'

 b. *AV sentence with post-VP pivot*

  M-*(b)aya' ebpa'* **uih***.*
  AV-follow river **1SG.PVT**
  'I'll follow the river.'

 c. *AV sentence with post-VP pivot*

  N-*(s)ier neneh* **uih***.*
  AV-see 3SG.OBL **1SG.PVT**
  'I see him.'

 d. *AV sentence with post-VP pivot (Ganang et al. 2008:*ngita*)*

  Ng-*ita* *ni=emu'*   **uih***.*
  AV-look.after NAME.OBL=little.girl **1SG.PVT**
  'I am looking after my daughter.'

Generally, any word order in AV other than agent-verb-patient (23a) or verb-patient-agent (23b–d) is ungrammatical. However, the normal rules of word order can sometimes be suspended for poetic reasons: one such example is given in (24):

(24) *Normal AV word order rules suspended (Padan and Ganang 2018:232)*

 m-(p)udut teh uih *lepo*
 AV-build yet 1SG.PVT hut
 'I will built a hut.'

In (24), the patient *lepo* has been dislocated from within the verbal complex to a position to the right of the pivot *uih*, which also falls outside the verbal complex, as the intervening second-position particle implies. This word order, though generally not permitted, is here used for poetic reasons: it is part of a larger work in which all immediately surrounding lines end on the syllable *-o*; the

dislocation is therefore used here to maintain the rhyme scheme. In context (Padan and Ganang 2018:232):[4]

> Mo do' teh uih buro
> Mé' nan pulung ado-ado
> Na' **mudut teh uih lepo**
> Nan kai dueh tudo

Adherence to poetic conventions here is sufficiently strong a motivation for breaking the ordinary rules of Lun Bawang word order. Despite the "violation," the meaning is entirely recoverable due to both semantic plausibility and the morphological indications of each argument's thematic role on verb and pronoun.

Lastly, any verb that can occur in AV is at least potentially syntactically transitive. Some, however, are low enough in semantic transitivity that they can and do occur without a patient argument, sometimes overwhelmingly more often than with a patient. Some verbs in this category include *nani* 'sing' and *ngalai* 'dance,' both of which may occur with or without a patient. Even *nalan* 'walk,' though no uses of the AV form with a patient are attested in the corpus, *can* take a patient (the road or path to be traveled), as demonstrated by the existence of a PV form *delanin* and its corresponding example in Ganang *et al.* (2008).

6.6.3.2 PATIENT VOICE

Patient voice (PV) is used when the patient argument is selected as the clausal pivot. Unlike AV, two types of PV constructions are available, one morphological and one periphrastic. In either one, the patient occupies the pivot position, either after the verbal complex and any second-position particles that follow it, or before the verb. Human patients do *not* receive the oblique marking that they receive outside PV, and, if pronominal, they take the pivot pronoun form. The two types of patient voice are explained in the subsections immediately following.

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[4]A rough English translation, disregarding all poetic conventions, might read, "I should flee to a faraway jungle, and I will build a hut for the two of us to live in." The observant reader may note that, like most Lun Bawang poetry, this snippet is in an iambic tetrameter.

6.6.3.2.1 MORPHOLOGICAL PATIENT VOICE. The morphological patient voice is formed using either the imperfective suffix *-en* (less often but still frequently *-in*) or the perfective infix *<in>* (cf. §4.4.2.2). Its usage can be seen in (25). Voice morphology and pivot arguments are bolded for ease of reading.

(25) a. *Morphological PV sentence with post-VP pivot*

    *Bet-**in**=muh*   ***kayuh inih**.*
    tie-**PV**=2SG.GEN **log**   **this**
    'You are tying up this log.'

  b. *Morphological PV with post-VP pivot (Langub 2014a:6)*

    *Gipel-**in**=neh*   *lek*   ***bua' sukui***   ***dih**.*
    embrace-**PV**=3SG.GEN NARR **fruit watermelon that.REM**
    'He embraced the watermelon.

  c. *Two morphological PV clauses with preverbal and post-VP pivots (Langub 2014a:11)*

    Pengeh peh lek   ***tuning ineh***   *l<**in**>udung=neh*   *nan tetel*
    finish   SUB NARR **clay.pot that.DIST** <**PFV.PV**>put.over.fire=3SG.GEN on   hearth

     ineh   *em,*   *tetug-**en**=neh*   *lek*   ***ebpa'*** *bang ineh.*
     that.DIST CONJ pour.out-**PV**=3SG.GEN NARR **water** in   that.DIST
    'After he had placed the clay cooking pot on the hearth, he poured water into it.'

6.6.3.2.2 PERIPHRASTIC PATIENT VOICE. Kemaloh Lun Bawang also has a periphrastic means of forming PV. This method uses *ruen*, the irregular[5] PV form of *tau'* 'do,' followed by the lexical verb, which always bears AV marking. The agent must follow the auxiliary immediately and is the only element that may intervene between it and the lexical verb. The pivot patient must occur outside this verbal complex, either by preceding the auxiliary or by following the lexical verb and any second-position particles that occur thereafter. Pronoun case patterns follow the same rules as for morphological PV. This construction is illustrated in (26a–b), with the voice-selecting auxiliaries and pivots bolded:

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[5]See note 23 in §4.9 for an explanation of the form.

(26) a. *Periphrastic PV (FN1:158)*

> ***Ruen**=muh   m-(b)ukut **ieh**.*
> **do.PV**=2SG.GEN AV-punch **3SG.PVT**
> 'You punch him.' or 'Punch him!'

b. *Periphrastic PV (FN1:161)*

> ***Iko**   **ruen**=neh   m-(b)ukut.*
> **2SG.PVT** **do.PV**=3SG.GEN AV-punch
> 'He punches you.'

The two periphrastic PVs in the sentence in (27) demonstrate that the pivot, if occurring after the verbal complex, must follow second-position particles:

(27) *Periphrastic PV with second-position particles (Langub 2014a:175–6)*

> ***Ruen** lun   ng-uyo   peh **iko**,   **ruen** nai   ng-uyo   neh **ieh***
> **do.PV** person AV-insult SUB **2SG.PVT**, **do.PV** INDEF AV-insult then **3SG.PVT**
> *l\<em\>ubed.*
> \<INTRANS\>return
> 'If someone insults you, you insult him back.'

Note that in (26), the patient of *mukut*, although this verb is AV, is pivot-marked, as the clause's voice is determined by the auxiliary *ruen*. Attempting to allow the lexical verb to determine pronoun form results in ungrammaticality:

(28) *Periphrastic PV: patient may not take case from lexical verb (FN1:158)*

> **Ruen=muh   m-(b)ukut neneh.*
> do.PV=2SG.GEN AV-punch 3SG.OBL
> *'You punch him.' or 'Punch him!'

As (29) illustrates, the main verb following auxiliary *ruen* must bear AV morphology. Marking it for PV is unacceptable:

(29) a. *Periphrastic PV disallows main verb in PV (FN1:161)*

> **Ruen=muh   bukut-en   ieh.*
> do.PV=2SG.GEN punch-PV 3SG.PVT
> '*You punch him.'

b. *Periphrastic PV disallows main verb in PV (FN1:161)*

*Iko   ruen=neh   bukut-en.
2SG.PVT do.PV=3SG.GEN punch-PV
'*He punches you.'

6.6.3.3 INSTRUMENTAL VOICE

Lun Bawang's third voice, the instrumental voice (IV), is by far the rarest. While AV and PV are both amply attested in naturally occurring speech, the author did not once, over several months of using Lun Bawang as the primary (and sometimes even exclusive) language of social interaction, encounter a spontaneously produced IV form outside the dictionary entries in Ganang *et al.* (2008) and the corpora of transcriptions of traditional oral literature (Padan and Ganang 2018; Langub 2014a,b; Tuie 1995). Even so, many speakers are aware of it and can produce it and judge its usage upon request.

Since neither of the two core arguments is selected as pivot in IV, they remain part of the verbal complex, so their behavior in terms of word order and case is exactly as in §§5.4 and 6.6.2: the agent, in genitive form if pronominal, immediately follows the verb, and it is in turn immediately followed by the patient, marked oblique if human and unmarked otherwise. The instrumental pivot may occur either preverbally or after the entire verb-agent-patient complex, as in (30) and (31b):

(30) a. *IV sentence*

Abet ineh *ne-**ping**-abet=kuh*   *neneh.*
rope that PFV-**IV**-tie=1SG.GEN 3SG.OBL
'I used that rope to tie him up.'

b. *IV sentence*

Abet inih *ne-**ping**-abet=kuh*   *kayuh ineh.*
rope this PFV-**IV**-tie=1SG.GEN log   that
'I used this rope to tie this log.'

In addition to the expected differences of word order and case, the use of the instrumental voice has one further consequence: in IV, the instrument appears as a bare nominal phrase, while in any other voice, it must be preceded by a preposition such as *ku* 'by, with, because of,' which marks instruments and causes. The difference is evident in the contrast between (31a) and (31b):

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(31) a. *PV sentence: non-pivot instrument marked with preposition (Clayre 1988:66)*

        *Beli-**en**=kuh*   ***lal***   ***ineh*** *ku*   *usin*   *inih.*
        buy-**PV**=1SG.GEN **chicken that** INST money this
        'I'll buy that hen with this money.'

    b. *IV sentence: no preposition before pivot instrument (Clayre 1988:66)*

        Pim**-(b)eli=kuh*   *lal*   ***usin   ***inih***.
        IV-buy=1SG.GEN chicken **money this**
        'I'll buy the hen with this money.'

6.6.3.4 SELECTION OF OTHER PIVOTS

Although only agents, patients, and instruments have dedicated voices, sometimes, either for expediency or due to syntactic constraints, some other entity must be selected as a clausal pivot. In this case, a periphrastic construction must be used. This construction is quite similar to that used in the periphrastic PV (§6.6.3.2.2). It employs an auxiliary *nan* 'at, on, to' or *inan* 'have, exist,' (both of which, in this construction, are glossed AUX) immediately followed by the agent, and then by the lexical verb, morphologically marked for AV. If the lexical verb is transitive, the patient will immediately follow, marked oblique if human. In all attested examples of this construction, the pivot precedes the auxiliary. This periphrastic construction is especially common as a means to select the recipient of a triadic clause (cf. §6.6.4) as the pivot. Its use for this and other purposes is illustrated in (32) with pivots bolded. Because this construction is often used in conjunction with relativization, the reader may wish to consult §9.6 for a more thorough understanding of some of the following structures. As a visual aid, relative clauses are bracketed in these examples, and the gaps corresponding to the position of the pivot in an independent clause are written in.

(32) a. *Periphrasis to select recipient pivot (Ganang* et al. *2008:*ikeceh*)*

        i=Keceh   *nan=kuh*   *ne-m-(b)eré* *surat* *dih.*
        NAME=someone AUX=1SG.GEN PFV-AV-give letter that.REM
        'I gave the letter to what's-his-face.'

    b. *Periphrasis to select other pivot (Ganang* et al. *2008:*merepet*)*

        Iko   *mo' luk* *[___****PVT*** *nan=kuh*   *me-repet].*
        2SG.PVT only REL **[[GAP**PVT**]** AUX=1SG.GEN STAT-hope]
        'On you alone I am depending.'

c. *Periphrasis to select location as pivot (Singa' Buas, p.c. [22 Sept. 2020])*

Inan	*ké'*	*susa'*	*luk*	*kudeng*	*ineh*	*m-angun*	*bang*	*bawang*	*su*
have	EMPH	trouble	REL	like	that.DIST	INTRANS-happen	in	place	LOC

[___PVT	*inan=muh*	*tudo] ?*
[[GAP_{pvt}]	AUX=2SG.GEN	sit]

'Has there been any trouble like that happening in the place where you live?'

d. *Periphrasis to select location as pivot (Ganang et al. 2008:*linikot*)*

L<in>ikot=neh	*ret*	*ni=Pengiran*	*tana'*	*luk*	*[[___PVT]*
<PFV.PV>cheat=3SG.GEN	from	NAME.OBL=Pengiran	land	REL	[[GAP_{PVT}]

nan=neh	*nge-lati'] ineh.*
AUX=3SG.GEN	AV-farm] that.DIST

'He cheated Pengiran out of the land where he farms.'

One verb, however, apparently bears the last remaining fossils of another former voice and therefore can select another argument as pivot. This verb is *pimaran*,[6] from root *beré* 'give,' which selects the recipient as pivot. See §6.6.4 for more on this verb and illustration of its use.

6.6.3.5 VOICE OF TRANSITIVE STATIVES

Transitive stative verbs in the imperfective aspect express an ability or propensity in relation to a particular action, and in the perfective aspect they portray an act as either an accident or an achievement.[7] These verbs take no voice morphology, which is reserved for dynamic verbs, but their voice is still evident from word order and pronoun case patterns. Both AV and PV patterns are acceptable and attested in spontaneous speech, but PV is far more common in transitive statives.[8] For example, both (33a) and (33b) are permissible and have the same meaning, and the same is true for (33c) and (33d) (pivots bolded):

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[6]Contra Ganang *et al.* (2008) and the writer's own notes, Clayre (2005) gives the form as *pimeréan*. In either case, the form is somewhat unexpected, as the language's regular phonological processes ought to result in **pimerayan*.

[7]The perfective forms are not, in the strictest sense, stative, belonging more properly to a telic *Aktionsart* such as achievements, but listing them here is convenient nonetheless since they are a counterpart to the imperfective statives, and they do seem to emphasize the resultant state more than the act itself.

[8]*Contra* Clayre (2005:23), who states "Lun Dayeh stative constructions are *always* in [patient] voice" (emphasis added). This overgeneralization is probably a consequence of PV predominance use in such constructions.

(33) a. *Transitive "stative" in PV (FN2:48)*

    Ne-kelupan=kuh   ***iko***.
    PFV-forget=1SG.GEN   **2SG.PVT**
    'I forgot about you.'

  b. *Transitive "stative" in AV (FN2:48)*

    Uih   *ne-kelupan nemuh.*
    1SG.PVT PFV-forget 2SG.OBL
    'I forgot about you.'

  c. *Transitive stative in AV (FN2:48)*

    Na ***uih***   *mek(e)-alap nemuh.*
    NEG **1SG.PVT** STAT-catch   2SG.OBL
    'I am not able to catch you.'

  d. *Transitive stative in PV (FN2:48)*

    Na *mek(e)-alap=kuh*   ***iko***.
    NEG STAT-catch=1SG.GEN   **2SG.PVT**
    'I am not able to catch you.'

Some more complex examples are shown in (34a–c). The first of these presents a concise contrast between the dynamic, voice morphology-bearing verb and its transitive stative counterpart. In the second, PV and AV case and word order patterns are used side-by-side in the same sentence. The third, underscoring the often blurry line between lexical categories in Lun Bawang, shows a PV clause where a verbal element *na kuman* 'not eating' is used nominally as the pivot.

(34) a. *Dynamic AV vs. Stative (Ganang* et al. *2008:*nekag*)*

    Ng**-ag*   *tulang dih*   ***uih   *sen*   *ké'*   *em,*
    AV-chop.up bone   that.REM **1SG.PVT** EMPH.CONTR EMPH   CONJ

     nek(e)-ag=kuh   *neh* ***bua' ticu'=kuh***.
     PFV-chop.up=1SG.GEN then **finger=1SG.GEN**
    'I was chopping up the bones when I accidentally chopped my finger.'

  b. *Two transitive statives, PV and AV (Langub 2014a:180)*

    "Me-pun=muh   *peh* ***batang rayeh ineh***   *em, ngudeh neh*
    STAT-carry.on.head=2SG.GEN SUB **log**   **large that.DIST** CONJ why   then

     iko   *na* *me-p-un*   *negkuh?" ki=Buayeh.*
     2SG.PVT NEG STAT-LIG-carry.on.head 1SG.OBL NAME.QUOT=Crocodile
    ' "You could carry that large log on your head, so why can't you carry me?" said Crocodile.'

c. *Transitive stative with nominalized verbal pivot (Langub 2014a:181)*

*Na   me-tan=kuh   **na   kuman** peh.*
NEG STAT-endure=1SG.GEN **NEG   eat.AV** already
'I can no longer stand not eating.'

6.6.4 TRIADIC CLAUSES

Triadic clauses include a third argument, normally a recipient. The term "ditransitive" is deliberately avoided as a descriptor for these constructions because the recipient in no wise behaves like a core argument (cf. definition in §6.6.1). A recipient, human or otherwise, is *always* marked as an oblique or, alternately, preceded by a quasi-preposition such as *inan* 'have' or *kuan* 'for.' The recipient also uniformly falls outside the verbal complex, normally directly following the pivot, unless the latter is placed preverbally. (35a–d) illustrate basic triadic sentences with fronted pivots, and (36a–c) show the position of the recipient relative to the verbal complex and a postverbal pivot. Voice morphology and pivots are bolded.

(35) a. *AV clause with pronominal recipient (FN1:71)*

Ieh   *ne-**m**-(b)eré apuh   inih negkuh.*
3SG.PVT PFV-**AV**-give broom this 1SG.OBL
'He gave me the broom.'

b. *PV clause with pronominal recipient (FN1:71)*

Apuh   inih *b**<i>**ré=neh*   *negkuh.*
broom this **<PFV.PV>**give=3SG.GEN 1SG.OBL
'He gave me the broom.'

c. *AV clause with nominal recipient (FN1:78)*

Ieh   *ne-**m**-(b)eré yu=neh*   *kuan anak ineh.*
3SG.PVT PFV-**AV**-give knife=3SG.GEN   for   child that
'He gave his knife to the child.'

d. *PV clause with nominal recipient (FN1:78)*

Yu=neh   *b**<i>**ré=neh*   *kuan anak ineh.*
knife=3SG.GEN   **<PFV.PV>**give=3SG.GEN for   child that
'He gave his knife to the child.'

(36) a. *AV clause: oblique follows pivot (Sandy Lukas, p.c., 23 Feb. 2020)*

    Ng-(k)irim tabi'   **Ina'**   **Alau didueh i=Sangan**   *kuan=muh.*
    AV-send   regards   **mother Alau 2DU**   **NAME=Sangan** for=2SG.GEN
    'Auntie Alau and Sangan send you [their] regards.'

    b. *AV clause: oblique follows pivot (Ganang* et al. *2008:*mekeneh*)*

    Me-keneh   *peh* **ieh**   *em,* **m**-*(b)eré pulu' rigit* **uih**   *nemuh.*
    STAT-hit.target SUB 3SG.PVT CONJ **AV**-give ten   ringgit **1SG.PVT** 2SG.OBL
    'If [you] can hit it, I'll give you ten ringgit [Malaysian currency].'

    c. *PV: Patient precedes recipient (FN2:70)*

    *K<**in**>irim=kuh*   **usin**   *neneh.*
    <PFV.PV>send=1SG.GEN **money** 3SG.OBL
    'I sent money to him.'

The ordering of the recipient relative to the verbal complex and pivot is inflexible; the oblique recipient must follow the verbal complex and the pivot. (37a–b) are therefore unacceptable:

(37) a. *AV: Recipient may not precede patient (FN2:70)*

    **Uih*   *ne-ng-(k)irim neneh*   *usin.*
    1SG.PVT PFV-AV-send 3SG.OBL money
    For *'I sent him money.'

    b. *PV: Recipient may not precede patient (FN2:70)*

    **K<in>irim=kuh*   *neneh*   *usin.*
    <PFV.PV>send=1SG.GEN 3SG.OBL money
    For *'I sent him money.'

In order to select the recipient as the clausal pivot, a periphrastic construction must normally be employed, as in (38a–b). The former contains a relative clause (cf. §9.6), and the latter is a (clefted) wh-question (cf. §8.2.3), since both require the recipient to be pivot. The periphrastic construction here illustrated is explained further and with more examples in §6.6.3.4 above.

(38) a. *Extraction of recipient from triadic clause (FN2:70)*

    i=Upai   *luk [___***PVT*** *inan=kuh*   *ne-ng-(k)irim surat].*
    NAME=Upai REL [[**GAP**_{PVT}] AUX=1SG.GEN PFV-AV-send letter]
    'It's Upai to whom I sent a letter.'

b. *WH-extraction of recipient in triadic clause (FN2:70)*

Idé luk [___PVT   inan=muh   ne-ng-(k)irim surat]?
who REL [[GAP_PVT] AUX=2SG.GEN PFV-AV-send letter]
'To whom did you send a letter?'

One verb, however, can select a recipient as pivot. This verb is *pimaran*, from the root *beré* 'give,' which appears to be the last remaining fossil of an otherwise obsolete benefactive voice.[9] Its use is illustrated in (39):[10]

(39) a. *Last remnant of a benefactive voice? (FN1:151)*

Uih   *ne-**pimaran**=muh   ebpa'.*
1SG.PVT PFV-give.BV?=2SG.GEN water
'You gave me water.'

b. *Last remnant of a benefactive voice? (Ganang* et al. *2008:*pimaran*)*

Idé *ne-**pimaran**=muh   usin   luk   b<i>ré=kuh   nemuh*
who PFV-give.BV?=2SG.GEN money REL   <PFV.PV>give=1SG.GEN 2SG.OBL
ina   dih?
just.now that.REM
'To whom did you give the money that I gave you just now?'

c. *Last remnant of a benefactive voice? (Clayre 2005:19)*

Idé *ne-**pimeréan**=muh   lawid dih?*
who PFV-give.BV?=2SG.GEN fish   that.REM
'To whom did you give the fish?'

6.7. ASPECT, NOT TENSE, AND THE USE OF FINAL *peh*

Contrary to the popular belief even among speakers, very likely taught to them by English-speaking non-linguists, the Lun Bawang language has no formal mechanism for distinguishing tense. What is popularly called "tense" is in fact aspect. Tense is instead inferred contextually or from adverbial modifiers. Some examples illustrating this fact are given in (40):

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[9]Precisely because the voice is obsolete, the word is treated in these glosses as a single unit rather than decomposed into non-productive morphemes. Its probable composition is, however, addressed in §4.4.2.4.

[10](39c) has *pimeréan*, the form recorded by Clayre (2005), *contra* Ganang *et al.* (2008) and the writer's own notes.

(40) a. *Perfective aspect used in past time (FN1:109)*

    Uih   pengeh ne-n-(t)angal   kayuh ineh kereb=neh   in-ecing
    1SG.PVT finish PFV-AV-cut.in.half log   that   time=3SG.GEN PFV-arrive
       inalem.
       yesterday
    'I had already cut that log in half when he arrived yesterday.'

    b. *Imperfective aspect used in past time (FN1:109)*

    Inalem, kereb=kuh   nge-lak baka, eco ng-imun m-udan.
    yesterday, time=1SG.GEN AV-cook boar, day AG-begin INTRANS-rain
    'Yesterday, while I was cooking the boar, it started to rain.'

    c. *Imperfective aspect used in future time (FN1:109)*

    Uih   m-(p)upu' kén   kereb iko   m-ecing   nebpa.
    1SG.PVT AV-wash   cloth time 2SG.PVT INTRANS-arrive tomorrow
    'I will be washing clothes when you arrive tomorrow.'

    d. *Perfective aspect used in future time (FN1:109)*

    Uih   pengeh ne-m-(p)upu' kén   kereb iko   m-ecing   nebpa.
    1SG.PVT finish PFV-AV-wash cloth time 2SG.PVT INTRANS-arrive tomorrow
    'I will already have washed the clothes when you arrive tomorrow.'

The pair of sentences (40a–b) are both set in a past time, as the presence of the word *inalem* 'yesterday' indicates. They differ in that the first clause in the former uses the perfective aspect to portray an act as already complete at the reference time, while the first clause in the latter uses the imperfective aspect to portray the act as still ongoing at the reference time. Likewise (40c–d) are both set in a future time, as the presence of the word *nebpa* 'tomorrow' indicates. Even so, the first uses an imperfective verb, because the act of washing clothes is portrayed as ongoing at the time of the future event of the addressee's arrival, while the second uses a perfective verb because the act is there depicted as already completed at the future reference time. This distinction therefore evidently corresponds not to the time at which an act occurs, be it past, present, or future, but whether that act or event is completed or ongoing at the time of reference.

Another device for aspectual marking is the clause-final particle *peh*. It may co-occur with either the perfective or imperfective aspect, with slightly differing semantic consequences in each case. With the perfective aspect, this *peh* reinforces what is already contained in the aspectual

marking, the completion of the act or event depicted. In this use, it is often best translated 'already.'
A few representative examples of this use are shown in (41):

(41) a. *Final* peh *with perfective aspect (Ganang et al. 2008:nesiberu')*

      Ne-si-beru'   uih   peh.
      PFV-MID-wash 1SG.PVT already
      'I washed myself already.'

  b. *Final* peh *with perfective aspect (Ganang et al. 2008:dica')*

      D<i>ca'=muh   uang baka   dih   peh?
      <PFV.PVslice=2SG.GEN meat wild.boar that.REM already
      'Have you already sliced the pork?'

  c. *Final* peh *with perfective aspect (Ganang et al. 2008:*neturem*)*

      Ne-t<u>rem   kapal luk ne-pau   dih   peh.
      PFV-<INTRANS>sink ship   REL PFV-puncture that.REM already
      'The ship that got a hole in it sank.'

With the imperfective aspect, final *peh* normally marks not the completion of an act or event, but its onset. The same is true of final *peh* used with statives and even predicative adjectives; it indicates a change of state or quality to that designated by the descriptor. In this use, it is often best translated 'now.' Examples (42a–c) illustrate *peh* with dynamic intransitives, and examples (43a–d) illustrate its use with statives and similar types of predicates:

(42) a. *Final* peh *with imperfective: onset of act (Ganang et al. 2008:*mirut*)*

      M-irut   ebpa' inih peh.
      INTRANS-subside water this now
      'The water is now subsiding.'

  b. *Final* peh *with imperfective: onset of act (Ganang et al. 2008:*nginulih*)*

      Ngi-nulih bunga' luk t<in>ibu   kidih   peh.
      AV-bud   flower REL <PFV.PV>plant 1SG.REM now
      'That flower that I planted is now budding.'

  c. *Final* peh *with imperfective: onset of act (Ganang et al. 2008:*tekamang*)*

      Te-kamang   anak midih   peh keh,   Ayun?
      INTRANS-crawl child 2SG.REM now POLAR Ayun
      'Has your child started to crawl, Ayun?'

(43) a. *Final* peh *with stative: change of state (Ganang* et al. *2008:*mekara*)*

    Me-kara rawih   luk   p-<in>idang mineh   peh.
    STAT   dry.for.milling sun-dried.rice REL   PFV.PVsun-dry 2SG.DIST
    'The rice grain you dried in the sun is now dry enough for milling.'

b. *Final* peh *with stative: change of state (Ganang* et al. *2008:*metekering*)*

    Me-lak   luba' luk l<in>ak   midih   peh.
    STAT-cook rice   REL <PFV.PV>cook 2SG.REM now
    'The rice that you cooked is already done.'

c. *Final* peh *with adjective: change of state (Ganang* et al. *2008:*nengayud*)*

    Do' peh ieh   ineh   peh? Idé ne-ng-ayud   neneh   ineh?
    good why 3SG.PVT that.DIST now who PFV-AV-advise 3SG.OBL that.DIST
    'Why is he so nice now? Who advised him?'

d. *Final* peh *indicating change of condition (Ganang* et al. *2008:*mekabu*)*

    Na   lawid bang ineh   peh.
    NEG fish   in   that.DIST now
    'There are no fish in there anymore.'

CHAPTER 7: EXCURSUS ON SYMMETRICAL VOICE

No description of a relatively morphosyntactically conservative Austronesian language is truly complete without a treatment of symmetrical voice. The term *symmetrical voice* refers to the presence in the language of two or more basic transitive constructions ("voices") (Himmelmann 2005). In Lun Bawang, these are the actor voice (AV), patient voice (PV), and instrumental voice (IV). A benefactive voice (BV) was likely once present but is now preserved in only one verb (cf. §6.6.4).[1]

The overview of symmetrical voice languages in Himmelmann (2005) gives two common features, one morphological and one syntactic, that characterize these types of voice alternations. The first of these is the equal morphological marking that each receives, or *morphological symmetry*, such that no one voice can be said to be the "basic" or "default" from which the other(s) is/are derived. Lun Bawang's voices, for instance, are morphologically symmetrical, as is evident from the outline of voice morphology given in the "conservative" columns of table 4.19 in §4.4.2. The verb form for each voice is built by attaching the appropriate affix directly to the root, and not to a form already belonging to another voice. A morphologically *asymmetrical* voice system, by contrast, is one in which one voice is clearly more basic than another, the latter being derived from the former. Long Wat Kenyah is one such example, which forms its active voice by a homorganic nasal substitution process similar to that in Lun Bawang and its passive by prefixing *te-* to the active form (cf. Blust 1971). The "innovative" columns in table 4.19 suggest that newer generations of Lun Bawang speakers may also be trending toward a morphologically asymmetrical system with AV as the basic or "default" voice upon which the others are built.

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[1]From even that sketch of a definition, it follows that the term *(a)symmetrical* is necessarily a relative one, referring to how voices within a system behave in relation to one another or to some default pattern; hence it must be applied to a set of voices or to a whole system. No one voice in isolation can properly be called (a)symmetrical in an absolute sense.

Himmelmann's (2005) other characteristic of symmetrical voice alternations is syntactic: the syntactic (and especially core) status of each argument remains consistent across voices. For the purposes of this dissertation, this *syntactic symmetry* of voices may be formulated in the following terms: in a set of voice alternations that display syntactic symmetry, each voice preserves the same mapping between semantics and syntax. More specifically, changing from one voice to another does not affect which thematic role is assigned to the syntactic role of subject or object. By contrast, a syntactically *asymmetrical* system would be one which does not leave these assignments intact, such as the English active-passive alternation, wherein the passive demotes the agent (subject in the active voice) to an oblique and promotes the patient (object in the active voice) to subject.

The distinction between the morphological and syntactic axes of symmetry is useful to make because, although a symmetrical voice system is often symmetrical in both of those senses, there is no reason in principle why it must be so. While many of the better known conservative Austronesian voice systems do indeed display both types of symmetry (cf., e.g., Chen 2017 for several Formosan and Philippine examples), voice systems that are symmetrical morphologically need not necessarily be so syntactically, and vice versa. For instance, as mentioned above, the verbal morphology in use among young Lun Bawang speakers, which builds some non-AV forms on the AV form, is shifting toward an asymmetrical pattern, but, as of this writing, no evidence has yet emerged to indicate that the language is also losing its syntactic symmetry, i.e., that PV is changing into a true passive that makes the patient the clausal subject and demotes the agent to a lower syntactic status.

While the ongoing morphological changes and their possible syntactic consequences should not be ignored, this grammar's treatment of symmetrical voice must focus on the conservative patterns since nearly all speakers who supplied the data that constitute its basis used those forms. Since, as already stated, the morphological symmetry of the voices of Lun Bawang is readily evident, this chapter focuses on demonstrating that the voice system of Lun Bawang also exhibits syntactic symmetry.

7.1. GRAMMATICAL RELATIONS AND VOICE REVISITED

At this juncture, a revisiting of and further elaboration on the discussion of relations raised in §6.6.1 is necessary. Once again, the relations in question may be divided into two sets, thematic (semantic) and grammatical (syntactic). The thematic relations of agent, patient, instrument, recipient, and any others that may become applicable retain their common meanings as laid out previously. The grammatical relations, however, require further elaboration.

Of the three crucial syntactic relations of subject, object, and pivot, the last has already been discussed extensively (cf., e.g., §6.6.1), so no further explanation is necessary beyond reiterating that it is characterized by distinctive case marking and word order patterns as well as exclusive availability as a target for relativization and argument sharing (the *pivot-only* constraint). The pivot is distinct in sense from but may, depending on voice selection, coincide in denotation with the subject or object, terms whose definitions as given in §6.6.1 now require further explanation.

Relationships between syntactic arguments have been described in many frameworks and with many terms, whether "asymmetric c-command" or one of the myriad others available. Not a few of these, different as they may be in their theoretical presuppositions, are grounded in very similar linguistic tests, namely those to do with scope and binding developed first in Barss and Lasnik (1986) and later expanded and applied to Austronesian voice in Chen (2017), *inter alios*. In order to avoid becoming entangled in such presuppositions, this dissertation (following, *inter alios*, Mortensen 2018, which is essentially an early version of this chapter) labels the relationship between any two nominals in terms of **prominence**. For present purposes, an operative characterization of prominence is as follows: some relation X is *more prominent than* some relation Y (hereinafter $X > Y$ for conciseness) if Y can be made to depend on X for its interpretation, but not necessarily vice versa. More specifically, this definition means that X may serve as an antecedent for binding into Y, and any asymmetry in scope interpretation that cannot be explained away by some other factor such as linear word order favors the reading in which Y falls within the scope of X. Prominence conceived thus is by its very nature a relative term; therefore one relation can be said only to be more or less prominent than another, and not "prominent" or "not prominent" in an absolute sense.

From the above, the previously given (§6.6.1) definitions of *subject* as a predicate's most promi-
nent argument and *object* as any non-subject core argument become clear. Concretely, it follows
that the subject may serve as an antecedent for binding into/coreference with an object (or oblique),
but not vice versa (or only with great difficulty), and where asymmetries in scope interpretation are
found, the reading is favored in which an object (or oblique) falls within the scope of the subject.
In other words, some nominal X is the subject if and only if, for every nominal Y, X > Y. While not
necessarily so by definition, the data below will reveal that an object is usually the second-most
prominent argument in a clause.[2] If arguments in a clause are ranked according to relative promi-
nence, they take the shape of a relational hierarchy not unlike those found in, e.g., Wechsler and
Arka (1998) or Keenan and Comrie (1977), which are headed by the subject, then an object, and
so on down.

Voice, then, was defined (§6.6.1) as the mapping between the two sets of relations, semantic
(e.g., agent, patient) and syntactic (e.g., subject, object, oblique, pivot). In any basic two-argument
transitive construction (i.e., one not derived from another transitive construction by some syntactic
operation), the voice used is one that maps the thematic role of agent onto the grammatical relation
of subject and the thematic role of patient onto the grammatical relation of object.[3] An asymmet-
rical voice alternation is one in which a voice may change this mapping, as does the passive in the
English active-passive alternation. This alternation is illustrated in figure 7.1, with pivot excluded,
as it is not a relevant category for English.

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[2]It may be the case that selection of a non-core argument as pivot promotes it to the second position in the hierarchy
of prominence, making it more prominent than object, and indeed the writer's own (admittedly fallible) intuitions as
a second-language speaker of Lun Bawang favor this hypothesis, but, regrettably, the forced cancellation of the last
planned round of fieldwork for this dissertation made testing this hypothesis a practical impossibility.

[3]One way to explain this is to appeal to a thematic hierarchy, headed by the agent, then the patient, and so forth (see
Rappaport Hovav and Levin (2007) for an overview of such proposals and their motivation, and especially Wechsler
and Arka (1998) for such a proposal in an Austronesian symmetrical voice context). Then the voice used in a basic
two-argument transitive construction such as the English active voice is one that neatly maps the first position in the
thematic hierarchy (agent) to the first position in the syntactic hierarchy (subject), and so on down the line.

FIGURE 7.1. ASYMMETRICAL VOICES: ENGLISH ACTIVE AND PASSIVE

Active   Passive

Agent   Patient   Agent   Patient

Subject   Object   Subject   ~~Object~~   Oblique
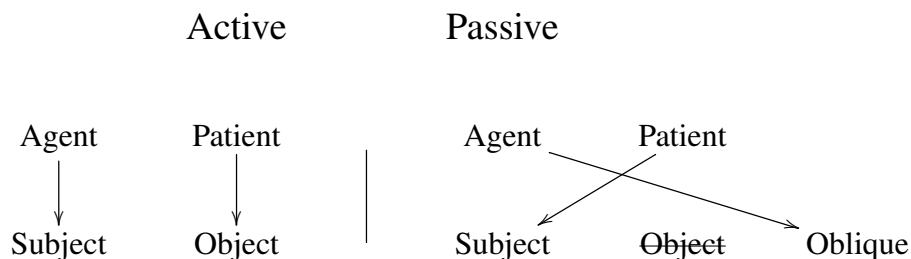
A symmetrical voice alternation, on the other hand, is one in which the mapping of the basic transitive clause is preserved, and only the choice of pivot differs, as in figure 7.2:[4]

FIGURE 7.2. SYMMETRICAL VOICES: LUN BAWANG AV AND PV

AV   PV

Agent   Patient   Agent   Patient

Subject   Object   Subject   Object

Pivot   Pivot
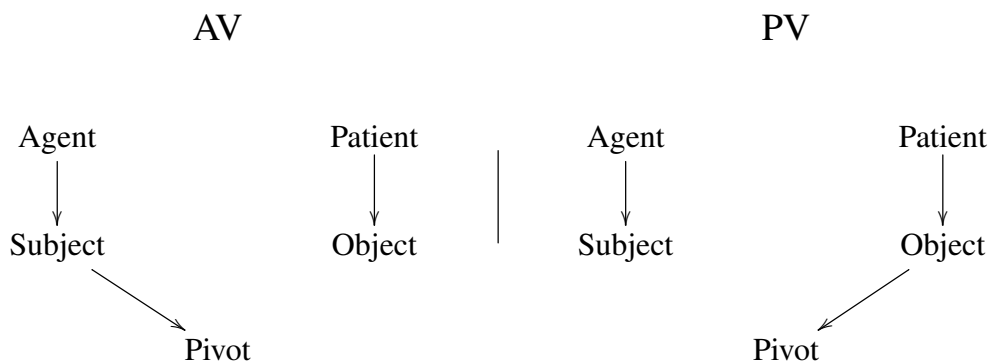
The aim of this chapter is to demonstrate, using tests for relative prominence to establish grammatical relations, the syntactic symmetry of Lun Bawang voices: that, regardless of pivot selection, the clausal subject is always the agent-like argument.

7.2. DIAGNOSING SYMMETRICAL VOICE

The method of diagnosing symmetrical voice may be easily inferred from the preceding definitions. Which arguments, if any, can be made to depend on which others, if any, for their inter-

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[4]If the hypothesis in note 2 should some day be proven correct, this definition and schema should still be valid; however, they would miss an important point: that the selection of any non-agent argument as pivot places it in the second position of the hierarchy of prominence.

pretation must be determined. The two best tools to use for this examination are scope and binding tests. Scope alone is not treated in this chapter, but rather in §10.5, for two reasons: first, several different patterns of scope-related behavior are at work in Lun Bawang, not all of which interact with grammatical relations. Second, although one of these, interactions between the universal quantifier and numerals (§10.5.3), does appear a valid diagnostic for symmetrical voice, it does not contribute any insight not already available from the binding tests used in this chapter.

The two main tests used here for relative prominence of grammatical relations both involve binding: the first is simple anaphoric binding, and the second is quantifier-variable binding, both of which lead to the same conclusion that the voice system of Lun Bawang is symmetrical. Each is demonstrated in its respective subsection.

7.2.1 ANAPHORIC BINDING

The first of these diagnostics, that of simple anaphoric binding, illustrates that a change in voice does not alter the relative prominence of the agent over all other arguments. This fact can be seen with genitives in the AV-PV alternations in (44a–b):[5]

(44) a. *Agent binds pronoun in patient in AV (FN1:80)*

Lemulun ineh$_i$ maman kerubau=neh$_{i/?*j}$.
man   that feed.AV buffalo=3SG.GEN
'That man$_i$ is feeding his$_{i/?*j}$ buffalo.'

b. *Agent binds pronoun in patient in PV (FN1:80)*

Kerubau=neh$_{i/?*j}$ pinan   lemulun ineh$_i$.
buffalo=3SG.GEN feed.PFV.PV man   that
'That man$_i$ fed his$_{i/?*j}$ buffalo.'

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[5]Many of these data are recycled from Mortensen (2018), though they are cited from field notes for greater precision. As is often the case in investigations of the finer points of syntax, the sentences in this section, though grammatically acceptable unless otherwise indicated, are hardly a model for natural speech. In part, this fact is a function of word order (the pivot occurs overwhelmingly in preverbal position in these examples, but placement after the verbal complex is more common in natural speech—nonetheless, (45) makes clear that word order does not determine binding), and some of it is due to word choice. For instance, changing *lemulun ineh* in a large number of examples to the nearly synonymous *lai sineh* would improve their naturalness considerably without affecting the syntax.

In both (44a–b), the agent binds the pronoun in the patient, and it does so regardless of voice and word order.[6] The acceptability of a coreferential reading in the PV sentence (44b) stands in stark contrast to a true passive in a language such as English, where passivizing *That man_i fed his_i buffalo* makes coreference much more difficult, i.e., *His_i buffalo was fed by that man_{*i/j}*. (45a–c) illustrate the same relations when an instrument is involved in the action, demonstrating that in every voice, the agent is more prominent than the instrument even if it follows it latter in linear word order.

(45) a. *Agent binds pronoun in instrument in AV (FN1:80)*

  Lemulun ineh_i ne-ng-(k)eteb kayuh ineh ku kepak=neh_{i/?*j}.
  man that PFV-AV-cut tree that INST axe=3SG.GEN
  'That man_i cut down that tree with his_{i/?*j} axe.'

 b. *Agent binds pronoun in instrument in PV (FN1:80)*

  Kayuh ineh k<i>teb lemulun ineh_i ku kepak=neh_{i/?*j}.
  tree that <PFV.PV>cut man that INST axe=3SG.GEN
  'That man_i cut down that tree with his_{i/?*j} axe.'

 c. *Agent binds pronoun in instrument in IV (FN1:80)*

  Kepak=neh_{i/?*j} ne-ping-(k)eteb lemulun ineh_i kayuh ineh.
  axe=3SG.GEN PFV-IV-cut man that tree that
  'That man_i cut down that tree with his_{i/?*j} axe.'

(46a–b) demonstrate that the agent is more prominent than the recipient regardless of voice, and (46c–d) demonstrates the same of the patient.

(46) a. *Agent binds pronoun in recipient in AV*

  Ieh_i ne-m-(b)eré kerubau ineh kuan tinan=neh_{i/?*j}.
  3SG.PVT PFV-AV-give buffalo that have mother=3SG.GEN
  'He_i gave that buffalo to his_{i/?*j} mother.'

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[6]The negative judgment rendered on the unbound reading here and in all the following items is probably due to pragmatic, rather than syntactic, reasons; these items were judged without any context that might have provided an-other readily available antecedent for the pronoun. With such a context, the non-coreferential reading would probably be available. What matters in these, judgments, however, is only that the coreferential reading be available in both voices, and not necessarily that it be exclusively so.

b. *Agent binds pronoun in recipient in PV*

Kerubau ineh b<i>ré   neh$_i$ kuan tinan=neh$_{i/?*j}$.
buffalo   that <PFV.PV>give 3SG.GEN have mother=3SG.GEN
'He$_i$ gave a buffalo to his$_{i/?*j}$ mother.'

c. *Patient binds pronoun in recipient in AV*

Uih   ne-m-(b)ada' neneh$_i$ inan tinan=neh$_{i/?*j}$.
1SG.PVT PFV-AV-show 3SG.OBL have mother=3SG.GEN
'I showed him$_i$ to his$_{i/?*j}$ mother.'

d. *Patient binds pronoun in recipient in PV*

Ieh$_i$ b<i>da'   kuh   inan tinan=neh$_{i/?*j}$.
3SG.PVT <PFV.PV>show 1SG.PVT have mother=3SG.GEN
'I showed him$_i$ to his$_{i/?*j}$ mother.'

The above are sufficient to establish that where interpretation of simple anaphoric binding is concerned, the arguments follow a hierarchy of prominence that always begins with the agent (therefore always the subject). Normally, the patient (which, if not the subject, is by definition an object) follows, and then the instrument and recipient come afterward.[7] The mapping of thematic roles to subject and object remains constant across voices, indicating syntactic symmetry.

7.2.2 VARIABLE BINDING

The other critical diagnostic for symmetry of voice used here is that of variable binding, which uses the previous test in conjunction with universal quantification. In these tests, the agent is associated with the universal quantifier, and a pronoun is associated with another argument such that the agent may bind the pronoun in AV, providing a distributed (one-to-one) reading. If the distributed reading is still available when the same sentence is changed to PV or IV, the scope and binding relationship has been preserved, and the voices may be said to demonstrate syntactic symmetry. (47a–b) illustrates a basic AV-PV alternation with a universally quantified agent and a bound variable pronoun in the patient:

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[7]Whether the patient is *always* more prominent than instruments and recipients is uncertain; cf. note 2. Given the rarity of triadic verbs that occur in the instrumental voice, the precise relationship between these last two may not be possible to discover.

(47)   a.   *Universally quantified agent binds variable in patient, AV (FN1:96)*

        Emung anak$_i$ ne-n-(s)ier kerubau=neh$_{i/?*j}$.
        all   child PFV-AV-see buffalo=3SG.GEN
        'Every child$_i$ saw his$_{i/?*j}$ buffalo.'

    b.   *Universally quantified agent binds variable in patient, PV (FN1:96)*

        Kerubau=neh$_{i/?*j}$ s<in>ier   emung anak$_i$.
        buffalo=3SG.GEN <PV.PFV>see all   child
        'Every child$_i$ saw his$_{i/?*j}$ buffalo.'

(47b) preserves the distributed reading of (47a), wherein each child sees his own buffalo, indicating that the change of voice has not altered the relative prominence between agent and patient. This pattern is strikingly different from English; while 'Every child saw his buffalo' can have a bound/distributed and an unbound/non-distributed reading, the passive 'His buffalo was seen by every child' can have only the unbound/non-distributed reading. In Lun Bawang, contrariwise, an agent can bind into a patient regardless of voice. On the other hand, no voice allows a patient to bind into an agent, as (48a–b) illustrate:

(48)   a.   *AV: universally quantified patient fails to bind genitive in agent (Mortensen 2018)*

        Taman=neh$_{*i/j}$ ne-n-(t)ulong anid anak$_i$.
        father=3SG.GEN PFV-AV-help each child
        'His$_{*i/j}$ father helped each child$_i$.'

    b.   *PV: universally quantified patient fails to bind genitive in agent (Mortensen 2018)*

        Anid anak$_i$ t<in>ulong   taman=neh$_{*i/j}$.
        each child <PFV.PV>help father=3SG.GEN
        'His$_{*i/j}$ father helped each child$_i$.'

Alternations including the instrumental voice, too, do not alter the grammaticality or the meaning of the sentence, as in (49a–c):

(49)   a.   *Universally quantified agent binds variable in instrument, AV (FN1:96)*

        Emung lemulun$_i$ ne-ng-abet kayuh ineh ku   abet=neh$_{i/?*j}$.
        all   person   PFV-AV-tie tree   that INST rope=3SG.GEN
        'Every man$_i$ tied that log with his$_{i/?*j}$ rope.'

b. *Universally quantified agent binds variable in instrument, PV (FN1:96)*

Kayuh ineh in-abet emung lemulun_i ku abet=neh_{i/?*j}.
tree that PFV.PV all person INST rope=3SG.GEN
'Every man_i tied that log with his _{i/?*j} rope.'

c. *Universally quantified agent binds variable in instrument, IV (FN1:96)*

Abet=neh_{i/?*j} ne-ping-abet emung lemulun_i kayuh ineh.
rope=3SG.GEN PFV-IV-tie all person tree that
'Every man_i tied that log with his_{i/?*j} rope.'

Perhaps the closest English approximation to the instrumental voice would result in a sentence such as 'His rope was used by every man to tie that log,' but this meaning differs from that of (49c), which, unlike the unbound, non-distributed English sentence, has a bound, distributed reading.

The evidence from the diagnostics presented in this section is sufficient to demonstrate that the three voices of Lun Bawang always display the same relative prominence relations between agent and any other argument in the clause. By definition, then, the agent is the subject in any voice. From this fact and the definition of *object* follows the conclusion that the patient is always a syntactic object. Since the mapping between thematic roles and syntactic relations other than pivot remains constant across voices, those voices by definition exhibit syntactic symmetry.

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CHAPTER 8: PRAGMATICALLY MARKED STRUCTURES

8.1. NEGATION

Negation is expressed with the negative morpheme *na*, which typically occurs in clause-initial position. If the pivot is placed preverbally, it normally follows negation (50a–b), but it, and it alone, can sometimes be dislocated to negation's left (50c), with consequences for scope (cf. §10.5).

(50) a. *Simple negated clause*

        Na ieh   emé'.
        NEG 3SG.PVT go
        'He's not going.'

  b. *Negated clause (Langub 2014a:182)*

        Na se-burur meh lun   me-p-apu'=neh.
        NEG one-body EMPH person STAT-RECIP=3SG.GEN
        'He hadn't come across a single other person.'

  c. *Negative clause with dislocated pivot (FN1:161)*

        Anid kerubau na   s<in>ier=kuh.
        each buffalo NEG <PFV.PV>see=1SG.GEN
        'I did not see any (lit. 'every') buffalo.'

This negative morpheme can also be used to negate questions and imperatives, to be discussed in their respective sections (§§8.2, 8.3.3). As a standalone interjection, the form of this morpheme is *nam*, retaining the coda that has been otherwise lost.

A second, less common device for negation is *do' keh*, which is composed of *do'* 'good' and the second-position particle *keh* 'actually, really.' It is so far attested only in clause-initial position and negating predicate nominals. (51) illustrates:

(51) a. Do' keh *as negation Langub (2014a:148)*

"Do' keh uih   luk ne-pian   nemuh, do' keh uih   luk ne-ng-aweh
NEG   1SG.PVT REL PFV-want 2SG.OBL NEG   1SG.PVT REL PFV-AV-marry

nemuh. Iko   keh   luk ne-nge-rabat negkuh," keneh.
2SG.OBL 2SG.PVT actually REL PFV-AV-net   1SG.OBL 3SG.QUOT
' "It was not I who wanted you. It was not I who married you. Rather, it was you who ensnared me," he said.'

  b. Do' keh *as negation Langub (2014a:172)*

"Do' keh iko   lun   luk n-(d)alan luun tana' inih em,   keli'=muh
NEG   2SG.PVT person REL AV-walk   upon earth this CONJ know=2SG.GEN

ulek=kuh?"   ki=tuk   Pelanuk.
destination=1SG.GEN NAME.QUOT=Mr. Mousedeer
' "You're not someone who walks upon the land, so would you know where I am going?" said Mousedeer.'

8.2. QUESTIONS

8.2.1 POLAR QUESTIONS

Polar questions are typically marked by intonation, and no other morphological or syntactic device is required. Some basic examples include (52a–b):

(52) a. *Basic polar question*

Kenen=muh   lawid?
eat.PV=2SG.GEN fish
'Do you eat fish?'

  b. Polar question (Langub 2014a:159)

"Ru-en=kuh   peh eceh laga, m-ileh   neh iko   tudo luun dih,
make-PV=1SG.GEN SUB one stool, *stat*-clever then 2SG.PVT sit   upon that.REM,

ku   me-kadang iur dih?"
CAUSE STAT-long   tail that.REM
' "If I make a stool, are you able to sit on it, because your tail is long?" '

A polar question may also begin with the negative *na* to suggest, similar to English, that an affirmation of the basic non-negated proposition is expected, as in (53):

(53) Negative polar question (Langub 2014a:158)

> *Na   ngadan=kuh   keli'=muh?*
> NEG name=1SG.GEN know=2SG.GEN
> ' "Don't you know my name?" '

While polar questions are usually marked only by intonation, two optional particles, *keh* and *dih*, may be placed in final position (exclusive of any vocatives) to indicate questions, as exemplified in (54). While *keh* may be used only for polar questions, *dih* may mark a polar or a wh-question (cf. also §8.2.3).

(54) a. *Polar Question with* keh *(Ganang et al. 2008:*nekabet*)*

> *Nek-abet=muh   kerubau dih   keh,   Labo?*
> PFVACH-rope=2SG.GEN buffalo that.REM POLAR Labo
> 'Labo, were you able to tie the buffalo?'

b. *Polar Question with* keh *(Ganang et al. 2008:*tinan*)*

> *T<in>an=muh   belatik   dih   peh   keh,   Sapat?*
> <PFV.PV>set.trap=2SG.GEN spring.trap that.REM already POLAR Sapat
> 'Did you already set the spring trap, Sapat?'

c. *Polar Question with* dih *(Ganang et al. 2008:*sinih*)*

> *Sinih   diko   dih?*
> this.SPEC 2SG.FOC Q
> 'Is this one yours?'

8.2.2 NEGATIVE POLAR QUESTIONS AND THEIR ANSWERS

Unlike English, however, negative polar questions, based on the limited language-internal evidence available, are answered in precisely the opposite manner. An affirmative answer to a negative question amounts to a denial of the basic, non-negated proposition, and a negative answer to a negative question amounts to an affirmation of the basic, non-negated proposition. The question in (55) illustrates:

(55) Negative polar question (FN1:126)

> *Na ieh   ne-ng-(k)eteb   kayuh ineh?*
> NEG 3SG.PVT PFV-AV-cut.down tree   that
> 'Didn't he cut down that tree?'

An affirmative answer *é'* to the above question means that the tree under discussion is still standing, while, in contrast, a negative answer *nam* means that it has been felled. Such a pattern is not unique to Lun Bawang, but is in fact widespread in Austronesian languages; Blust (2013b) provides instances in languages as distant as Indonesian and Pohnpeian.

8.2.3 WH-QUESTIONS

Any Lun Bawang wh-question will include one of the following words or phrases:

- *Idé* 'who?' or *nidé* in environments that condition oblique marking

- *Enun* 'what?'

- *Sapeh* 'which one?'

- *Kudeng apeh* 'how?'

- *Tuda'* 'how many/much'?

- *Idan* 'when?'

- *Iapeh* or *su apeh* 'where?'

- *Bura' peh* plus a quasi-adjectival root, or a root plus second-position *peh*: 'why so [root]. . . ?'

- *Ngudeh* 'why?' or 'do what?'

(56a–l) provide basic examples of the use of several of these:

(56) a. *WH-question: who?*

      M-(b)aya' n(e)=idé iko?
      AV-follow OBL=who 2SG.PVT
      'Whom are you following?'

   b. *WH-question: what?*

      Nge-rawé enun?
      AV-think what
      'Thinking about what?'

c. *WH-question: how? (FN1:76)*

Kudeng apeh ne-keli'=muh   berek ineh?
as   what PFV-know=2SG.GEN pig   that.DIST
'How did you find that pig?'

d. *WH-question: which? (FN1:140)*

Sapeh diko   anak?
which 2SG.FOC child
'Which one is your child?'

e. *WH-question: how much? (Ganang et al. 2008:*uli'*)*

Tuda'   uli' lati' midih?
how.much yield farm 2SG.REM
'How much yield did you get from your farm?'

f. *WH-question: how much? (FN3:56)*

Enun kin-angud   i=tamam?
what QUANT-young NAME=father.2SG
'How old is your father?' (lit. 'What is the extent of your father's youngness?')

g. *WH-question: how many? (Ganang et al. 2008:*kua'*)*

Tuda'   kua' iko   iné'   dai' Kota Kinabalu?
how.many time 2SG.PVT go.PFV there Kota Kinabalu
'How many times have you gone to Kota Kinabalu?'

h. *WH-question: when?*

In-ecing   idan iko?
PFV-arrive when 2SG.PVT
'When did you arrive?'

i. *WH-question: where?*

Em-é'   iapeh iko?
INTRANS-go where 2SG.PVT
'Where are you going?'

j. *WH-question: where?*

Su   apeh ulek=muh?
LOC what destination=2SG.GEN
'Where are you going?' (lit. 'Where is your destination?')

k. *WH-question: why so…? (Ganang et al. 2008:*derut*)*

Bura' peh dat derut=muh   kuyu' kinih?
excess why bad sew=2SG.GEN shirt   this.1SG
'Why did you sew my shirt so badly?'

l. *WH-question: why so…? (Ganang* et al. *2008:*ado*)*

> *Ado peh ruma' nan=muh   tudo leh?*
> far   why house AUX=2SG.GEN sit   VOC
> 'Hey, why is the house where you live so far away?'

The word *ngudeh* requires further explanation before exemplification. This word is actually an interrogative verb, from the root *kudeh*, which has the basic meaning 'what is [subject] doing?' but can also mean 'why?' in the proper context. Although asking 'What are you doing?' by saying *Enun ruen muh?* or *Ngenau' enun iko?* or using some other variant of the verb *tau'* 'do' is perfectly acceptable, the most natural way to ask this question is using this verb, as in (57a). This interrogative verb may also be marked for the perfective aspect, as in (57b). If the root takes the perfective prefix directly without any voice morphology, it means 'What happened to [subject]?', probably by way of an original accidental meaning 'What did [subject] accidentally do?' (57c).

When used as 'why?' the form *ngudeh* is invariant, and its variable placement, which is parallel to that of adverbs, indicates that it is not a true verb in such usage. In (57f), it occurs in clause-initial position, preceding a pivot that has already been dislocated into the left periphery of the clause, as its placement prior to the negative morpheme shows. On the other hand, in (57d–e), it occurs at the end of the verbal complex and precedes the pivot argument.

(57) a. Ngudeh *as 'doing what?'*

> *Ng-(k)udeh iko?*
> AV-do.what 2SG.PVT
> 'What are you doing?'

b. Ngudeh *as 'doing what?'*

> *Ne-ng-(k)udeh   iko?*
> PFV-AV-do.what 2SG.PVT
> 'What did you do?'

c. Kudeh *as 'do what?'*

> *Ne-kudeh   iko?*
> PFV-do.what 2SG.PVT
> 'What happened to you?' (prb. originally 'What did you accidentally do?')

d. Ngudeh *as 'why?' (Langub 2014a:159)*

"R<em>urut ngudeh uih, Buayeh?"
<INTRANS>climb.down why 1SG.PVT Crocodile
' "Why should I climb down, Crocodile?" '

e. Ngudeh *as 'why?' (Langub 2014a:181)*

"Buayeh, gitep-en=muh ngudeh i=Sapi' ineh?" keneh.
Crocodile bite-PV=2SG.GEN why NAME=Cow that.DIST 3SG.QUOT
' "Crocodile, why are you biting Cow?" [Rhinoceros] said.'

f. Ngudeh *as 'why?' (Langub 2014a:181)*

"Sapi', ngudeh iko na sikel m-(b)eré tipan=muh se-lipa kenen
Cow why 2SG.PVT NEG want AV-give thigh=2SG.GEN one-side eat.PV

i=Buayeh?" ki=Temecur ni=Sapi'.
NAME=Crocodile NAME.QUOT=Rhinoceros NAME.OBL=Cow
' "Cow, why don't you want to give one side of your thigh for Crocodile to eat?" said
Rhinoceros to Cow.'

As with polar questions,, wh-questions allow the optional question particle *dih* to be placed
clause-finally:

(58) *WH-question with optional* dih *(Ganang* et al. *2008:*nenamid*)*

Idé ne-n-(t)amid negkuh ina dih?
who PFV-AV-kick.backward 1SG.OBL just.now Q
'Who kicked me just now?'

In situ wh-questions, which include the majority of those in (56–57), are quite common and
always permissible. WH-fronting is also found when pragmatically called for, but it may be subject
to additional syntactic constraints. An adverbial wh-item such as *kudeng apeh* 'how,' *idan* 'when,'
or *ngudeh* 'why,' may simply be placed clause-initially with no further consequences. The same is
true most of the time with *iapeh* 'where,' but with certain verbs such as *tudo* 'sit, stay, live,' treating
iapeh as the clausal pivot (cf. §6.6.3.4) and using the appropriate periphrastic construction is more
natural. These alternatives are illustrated in the difference between (59a–b), where the latter is the
wh-fronted equivalent of the former:

(59) a. In situ *wh-question*

Tudo iapeh iko?
sit   where 2SG.PVT
'Where do you live?'

    b. *WH-fronted equivalent of (59a) (Ganang et al. 2008:nan)*

Iapeh nan=muh   tudo?
where AUX=2SG.GEN sit
'Where do you live?'

WH-fronted questions where the wh-item refers to a core or oblique argument have two variants, clefted and non-clefted, with the only surface distinction being the presence or absence of the relativizer *luk*. Both are subject to the same strict syntactic constraint: a core argument or an instrument may be fronted, with or without clefting, *only* if it is the clausal pivot. If the argument to be fronted cannot be selected by any of the available voices, the periphrastic construction from §6.6.3.4 must be used, as in (60e) (cf. also (38b) in §6.6.4). The relic benefactive voice form *pimaran*, however, may be used to front a recipient without periphrasis, as in (60f). Any attempt to front a non-pivot wh-item, as in (60g–h), results in ungrammaticality.[1]

(60) a. *Fronted wh-agent in AV*

Idé ne-m-(b)ada' dalan sinih   nemuh?
who PFV-AV-show path   this.SPEC 2SG.OBL
'Who showed you this path?'

    b. *Fronted wh-patient in PV*

Enun b<i>ré=neh   nemuh?
what <PFV.PVgive=3SG.GEN 2SG.OBL
'What did he give you?'

    c. *Fronted wh-patient in PV (Ganang et al. 2008:takap)*

Tuda'   takap d<in>amu'   muyuh?
how.many section <PFV.PV>weed 2PL
'How many sections of the farm did you weed?'

_____

[1](60h) is grammatical if the intended meaning is the somewhat nonsensical 'Whom did that tree cut down?'

d. *Clefted wh-patient in PV*

Kayuh sapeh luk k\<i\>teb lai sineh?
tree which.one REL \<PFV.PV\>cut.down man that.SPEC
'Which tree did that man cut down?'

e. *Clefted wh-recipient with periphrasis (FN1:76)*

Idé luk inan=muh ne-m-(b)eré apuh ineh?
who REL AUX=2SG.GEN PFV-AV-give broom that.DIST
'To whom did you give that broom?'

f. *Fronted wh-recipient with fossilized benefactive voice*

Idé pimaran=muh apuh ineh?
who give.BV=2SG.GEN broom that
'To whom did you give that broom?'

g. *WH-patient cannot be fronted in AV*

*Enun n-(t)au' iko?
what AV-do 2SG.PVT
For *'What are you doing?'

h. *WH-agent cannot be fronted in PV*

*Idé k\<i\>teb kayuh ineh?
who \<PFV.PV\>cut.down tree that
For *'Who cut down that tree?'

8.3. IMPERATIVES

8.3.1 IMPERATIVE TYPES AND VOICE

The common way of forming imperatives today is to use plain AV or PV verb forms in such a way that context makes clear that they have imperative force. When thus used, they follow all the same syntactic rules given in §6.6.3 above, with one exception: though a pronominal object of an AV imperative typically takes the oblique form, if, as is often the case, no agent is overtly expressed, the patient may receive pivot marking instead, despite not actually being the clausal pivot. (61a–b) are therefore both equivalent.

(61) a. *AV as imperative: oblique-marked object (FN1:102)*

M-(b)ukut neneh!
AV-punch 3SG.OBL
'Punch him!'

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b. *AV as imperative: pivot-marked object (FN1:102)*

    M-(b)ukut ieh!
    AV-punch 3SG.PVT
    'Punch him!'

PV imperatives, which usually include an overt second-person pronoun and may be formed either morphologically or periphrastically, are exemplified in (62a–b):

(62)   a.   *Morphological PV as imperative (FN2:26)*

    Kenen=muh   ruti' ineh!
    eat.PV=2SG.GEN bread that
    'Eat that bread!'

   b.   *Periphrastic PV as imperative (FN1:158)*

    Ruen=muh   m-(b)ukut ieh!
    do.PV=2SG.GEN AV-punch 3SG.PVT
    'Punch him!'

Another means of forming imperatives is with the use of a bare root with the basic verbal complex structure shown in §6.6.2, nearly always preceded by a reduplicated adverbial, as shown in (63). This construction has no voice at all, as the lack of any pivot-marked pronoun in (63c) indicates.

(63)   a.   *Root imperative (Ganang et al. 2008:*aba*)*

    Ulai-ulai   aba=muh   apui dih,   na neh luba' dih   m-eseb.
    REDUP-slow feed.fire=2SG.GEN fire that.REM NEG then rice   that.REM STAT-burn
    'Feed the fire slowly so that the rice won't burn.'

   b.   *Root imperative (Ganang et al. 2008:*abab*)*

    Rayeh-rayeh abab=muh   tulu   dalan tau   dih   ké'.
    REDUP-big   clear.path=2SG.GEN suitable walk 1PL.INCL that.REM EMPH
    'Please cut a pathway wide enough for us to walk.'

   c.   *Root imperative (Ganang et al. 2008:*akad*)*

    Ayen-ayen   akad=muh   neneh.
    REDUP-gentle turn.over=2SG.GEN 3SG.OBL
    'Turn him over gently.'

d. *Root imperative (Ganang* et al. *2008:*anam*)*

  Do'-do'   anam=muh   bera luk   <in>utat   ineh.
  REDUP-good retrieve=2SG.GEN rice   REL <PFV.PV>spill that.DIST
  'Carefully retrieve the rice that was spilled.'

Formerly, imperatives were commonly formed via one of the imperative suffixes *-uh*, *-a'*, or *-i'* (cf. §4.4.3) that, while still known, are little used today. While the function of *-i'* is simply unknown and may never be well understood due to disuse, *-a'* indicates an act to be performed on a faraway object, while *-uh* indicates an act to be performed on a nearby object. This latter suffix is reported by speakers today to be very forceful, even somewhat rude, especially if used toward someone older or of higher social standing than oneself, and it should be avoided in such situations in favor of using plain PV. Some basic examples are illustrated in (64–66). Note especially the deictic contrast between (64a–b) and (65a–b).[2]

(64) a. *Imperative in* -uh *(FN3:34)*

  Ken-uh   nuba' inih!
  eat-IMPER rice   this
  'Eat this rice!'

   b. *Imperative in* -uh *(FN3:34)*

  Lap-uh   lawid inih!
  get-IMPER fish   this
  'Get this fish!'

   c. *Imperative in* -uh *(Langub 2014a:177)*

  "Neh,   ken-uh   kayuh inih."
  INTERJ eat.-IMPER wood this
  ' "Here, eat this wood." '

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[2]The vowel variation in the stem for 'eat,' i.e., *akan* (root), *kuman* (AV), *kinan* (perfective PV), and *kana'* (imperative), but *kenen* (PV) and *kenuh* (imperative) is due to the fact that the reconstructed Proto-Austronesian root is *kaen (Blust and Trussel 2020). Any suffixation to this root would put the *a* in an antepenultimate syllable, triggering its reduction to schwa, thus explaining the lack of an *a* in *kenen* and *kenuh*. Why the *a* was retained in *kana'* is unclear.

(65) a. *Imperative in* -a' *(FN3:34)*

      Kan-a'   nuba' ineh!
      eat-IMPER rice   that
      'Eat that rice!'

    b. *Imperative in* -a' *(FN3:34)*

      Lap-a'   lawid ineh!
      get-IMPER fish   that
      'Get that fish!'

    c. *Imperative in* -a' *(Ganang* et al. *2008:*gitebpa'*)*

      Gitebp-a' tebpuh   ineh   kuan=kuh.
      cut-IMPER sugarcane that.DIST for=1SG.GEN
      'Cut the sugarcane in two for me.'

(66) a. *Imperative in* -i' *(Clayre 1991:422)*

      Pen-i'   berek dih!
      feed-IMPER pig   that.REM
      'Feed the pigs!'

    b. *Imperative in* -i' *(Ganang* et al. *2008:*teci'*)*

      Tec-i'   karit   mineh   kuan=kuh   leh?
      leave-IMPER parang 2SG.DIST for=1SG.GEN VOC
      'Can you leave your parang to me?'

    c. *Imperative in* -i' *(Ganang* et al. *2008:*dari'*)*

      Dar-i'   i=Lasung   ineh   emé' tungé'.
      call-IMPER NAME=Lasung that.DIST come here
      'Call Lasung here.'

Though possibly originally representing at least two different voices—the closest possible antecedent to the *-i'* suffix is the Proto-Austronesian locative voice imperative suffix (Ross 2009), but this still leaves the glottal stop unexplained—, all of these imperatives now exhibit syntactic behavior associated with PV. The *-a'* imperative is attested marking a patient pronoun as pivot, while marking it as oblique, as in any non-PV voice, is ungrammatical:

(67) *Imperative in* -a' *displays PV pronoun patters (FN2:26)*

    *Sir-a'=muh   uih/*negkuh!*
    see-IMPER=2SG.GEN 1SG.PVT/*1SG.OBL
    'Look at me!'

In an *-i'* imperative, the patient argument may be separated from the verb by prepositional or other such phrases, a trait characteristic of the pivot argument, indicating that, despite its possibly originally marking locative voice, this suffix has functionally merged with PV (cf. also (69a) below).

(68) a. *Imperative in -i' with PV word order (Ganang et al. 2008:teci')*

    Tec-i'   *nan tana' ineh*   ***babeh midih.***
    leave-IMPER on   earth that.DIST luggage 2SG.REM
    'Leave your luggage on the ground.'

    b. *Imperative in -i' with PV word order (Ganang et al. 2008:teci')*

    Tec-i'   *nan natad ineh*   ***tayen dih.***
    leave-IMPER on   lawn that.DIST basket that.REM
    'Leave the basket on the lawn.'

Imperatives may also be formed using a periphrastic construction that is nearly identical to that for forming the periphrastic PV. The sole difference is that the auxiliary verb 'do' takes the imperative form *rua'* (often pronounced *wa'*) instead of the PV *ruen*.[3]

(69) a. *Periphrastic imperative (Ganang et al. 2008:ngekering)*

    Rua'   *nge-kering nan bitang*   *ineh*   *kuyu'*   *midih.*
    do.IMPER AV-dry   on   clothesline that.DIST clothing 2SG.REM
    'Dry your clothes on the line.'

    b. *Periphrastic imperative (Langub 2014a:184)*

    "Rua'   *ng-un*   *i=eca'*   *Buayeh*   *sir-en*   *tau*
    do.IMPER AV-carry.on.head NAME=brother.in.law Crocodile see-PV1PL.INCL all

      emung em,"   *ki=Tuk*   *Pelanuk lek.*
      CONJ   NAME.QUOT=Mr. Mouse-deer NARR
    ' "Carry brother Crocodile on your head for us all to see," said Mouse-deer.'

---

[3]The term *eca'* used in (69b) literally refers to the brother or sister of the spouse of one's own brother or sister; that is, two people who are *dingeca'* are related because the brother of one is married to the sister of the other. It could therefore be translated 'brother-in-law,' but the translation 'brother' is preferred here because it is being used not in a literal sense but as a term of (in the context of the story, feigned) affection between two ostensible friends.

Any imperative construction may be used in the first-person nonsingular as an exhortation:

(70) a. *Imperative as exhortation (Ganang et al. 2008:*bura'*)*

    M-ileh   tu   i=Padan   nge-nau' karit leh em, (u)bur-a'
    STAT-clever truly NAME=Padan AV-make parang VOC CONJ praise-IMPER

      tau   ieh   ineh.
       1PL.INCL 3SG.PVT that.DIST
    'Padan is very skilled at making parangs. Let us praise him.'

    b. *Imperative as exhortation (Ganang et al. 2008:*peranga'*)*

    N-(d)alan pe-ranga'   tau   ko'?
    AV-walk   RECIP-unison 1PL.INCL PTCL
    'Let's all leave together, okay?'

Any imperative construction, like that in (70b) above, may use the particle *ko'* to soften its tone, akin to ending it in "okay?" or phrasing it as a question of the form, "Would you…?"

(71) a. *AV imperative with* ko' *(Ganang et al. 2008:*maya'*)*

    *M-(b)aya' negkuh   iko   **ko'**.*
    AV-follow 1SG.OBL 2SG.PVT PTCL
    'You follow me, okay?'

    b. *PV imperative with* ko' *(Ganang et al. 2008:*buken*)*

    *N-(t)angi' peh i=Labo   em, (u)buk-en=muh   ieh   **ko'**?*
    AV-cry   SUB NAME=Labo CONJ console-PV=2SG.GEN 3SG.PVT PTCL
    'If Labo cries, will you please console him?'

    c. *Periphrastic PV imperative with* ko' *(Ganang et al. 2008:*nurun*)*

    *Ruen=muh   n-(t)urun babeh kineh   ret dai' ruma' napeh **ko'**.*
    do.PV=2SG.GEN AV-descend luggage 1SG.DIST from there house later   PTCL
    'Please bring my luggage down from the house later.'

    d. *Root imperative with* ko' *(Ganang et al. 2008:*tepeh*)*

    *Do'-do'   tepeh=muh   padé dih   **ko'**.*
    REDUP-good pound=2SG.GEN rice   that.REM PTCL
    'Please pound the rice carefully.'

    e. *Archaic morphological imperative with* ko' *(Ganang et al. 2008:*luga'*)*

    *Lug-a'   buku inih kuan=kuh   **ko'**.*
    keep-IMPER book this for=1SG.GEN PTCL
    'Please keep this book for me.'

f. *Archaic periphrastic imperative with* ko' *(Ganang* et al. *2008:*ngeret*)*

Rua'   *ng-(k)eret kayuh ineh*   *ku*   *radi'* **ko'***.*
do.IMPER AV-cut   wood that.DIST INST saw   PTCL
'Please cut that wood with the saw.'

Lastly, AV imperatives allow for an important exception to normal word order rules: an overt (pivot) agent in an AV imperative may intervene between the verb and its patient:

(72) *Word order variation in AV imperatives (Ganang* et al. *2008:*peduduk*)*

Nge-nau' tau   *irau nebpa*   *em*   *pe-duduk*   *tau*   *ko'.*
AV-do   1PL.INCL feast tomorrow CONJ RECIP-collection 1PL.INCL PTCL
'Let's hold a party tomorrow and take up a collection.'

8.3.2 IMPERATIVE *kai (kemuh)*

Lun Bawang has an invariant imperative *kai* 'go!', which can be used in conjunction with other verbs to command an action to be performed in another location. For this reason, it is particularly well suited to be used alongside a verb bearing the *-a'* suffix:

(73) a. *Imperative* kai *(Langub 2014a:169)*

"*Kai*   *lap-a'*   *ieh,*"   *ki*   *Buayeh.*
go.IMPER get-IMPER 3SG.PVT QUOT Crocodile
' "Go get it [your liver]," said Crocodile.'

b. *Imperative* kai *(Langub 2014a:176)*

Kai   *sir-a'*   *ngeh kiung mineh*   *bang siayun inih!*
go.IMPER see-IMPER PTCL face   2SG.DISTAL in   mirror this
'Go look at your face in the mirror!'

Imperative *kai* can also occur with an overt agent, always of the form *kemuh*, which is otherwise primarily used as a quotative pronoun. (74) illustrates:

(74) *Imperative* kai kemuh *(FN3:50)*

Kai   *kemuh*   *emé' dai'!*
go.IMPER 2SG.QUOT go   there
'Go over there!'

The use of any other pronoun form is not permitted; any attempt to employ oblique *kai nemuh*, genitive *kai=muh*, pivot *kai iko*, or possessive *kai diko* results in ungrammaticality. This pattern of usage is not entirely restricted to *kai*, either; it is also found with *lawé* 'travel':

(75) *Imperative* lawé kemuh *(Ganang* et al. *2008:*pem*)*

    Lawé kemuh   emé tungé'!
    travel 2SG.QUOT come here
    'Come here!'

8.3.3 NEGATIVE IMPERATIVES

Negative imperatives differ from affirmative imperatives only by the presence of a leading negation marker. This word can be either *na* (cf. §8.1) or *eleg*, the latter of which is a verb root meaning 'refuse,' 'stop,' or 'abstain from' and is less used by today's young speakers. Though it has various affixed forms, only the root is used to command. The two are illustrated in (76–77), respectively.

(76) a. *Negative imperative with* na *(FN1:127)*

    Na n-(t)angal   kayuh ineh!
    NEG AV-cut.in.half tree   that
    'Don't cut that log in half!'

    b. *Negative imperative with* na *(Ganang* et al. *2008:*benen*)*

    Na t<u>ped   m-uneng iring bank ineh,   iko   (e)ben-en
    NEG <INTRANS>stand STAT-near beside bank that.DIST 2SG.PVT accuse-PV

     ne-m-(p)eno usin luk ne-tutu' dih   napeh.
     PFV-AV-steal money REL PFV-lose that.REM later
    'Don't stand near the bank, or you might be accused of stealing the missing money.'

(77) a. *Negative imperative with* eleg *(Blust 1971)*

    Eleg   n-(t)au' ineh!
    NEG.IMPER AV-do   that
    'Don't do that!'

    b. *Negative imperative with* eleg *(Ganang* et al. *2008:eleg)*

    Eleg   tudo ieneh.
    NEG.IMPER sit   there.DIST
    'Don't sit there.'

Eleg may optionally be followed by a second-person pronoun, taking the genitive form where applicable.

(78) a. *Negative imperative with overt second-person (Langub 2014a:8)*

    "Eleg=muh   ng-até negkuh!"
    NEG.IMPER=2SG.GEN AV-kill 1SG.OBL
    ' "Don't kill me!" '

    b. *Negative imperative with overt second-person (Langub 2014a:185)*

    "Iemo' eleg   nai   ba   rayeh tangi' ko', me-rugag kai   kuma'
    but   NEG.IMPER INDEF very big   cry   PTCL STAT-annoy 1PL.EXCL group

     inih," ki=Tuk   Pelanuk   lek.
     this   NAME.QUOT=Mr. Mouse-deer NARR
    ' "But don't cry too loudly, okay? We're all annoyed," said Mouse-deer.'

To command that an action cease, *ucu'* 'stop, take a rest' or *ugka'* 'stop' may be used with the main verb, such as in (79):

(79) *Negative imperative with* ucu' *(FN1:127)*

    Ucu' n-(t)angal   kayuh ineh!
    stop AV-cut.in.half tree   that
    'Stop cutting that tree in half!'

8.4. CLEFT CONSTRUCTIONS

Cleft constructions, often used for focusing an argument, are formed by relativization (cf. §9.6). Since Lun Bawang lacks an overt copula and the pleonastic *it* found in English clefts, a Lun Bawang cleft often resembles a lone argument with an attached relative clause. As with all relative clauses, the clefted head nominal *must* refer to the pivot (left as a gap) of the relative clause (the *pivot-only* constraint; see further Chapter 9). While the syntax of clefting is not complicated, the examples for illustration used here are lengthier so as to illustrate not just the syntax, but the pragmatic function of clefting, which corresponds very closely to the use of clefting in the English translations. The clefts themselves are bolded for ease of reading.

(80) *From "Tuk Pelanuk" (Langub 2014a:180)*

    a. *"Aa, terima' kasih ula'-ula',   Sapi'.*
       ah   thank.you   REDUP-much Cow
       ' "Ah, thank you so much, Cow.'

    b. *"Emung pung luk m-ulun   luun tana' inih peh em, **iko**   meh*
       all   animal REL INTRANS-live on   earth this TOP CONJ 2SG.PVT EMPH

       *****luk*** *abud do' niat, m-ileh   m-ai'.*
       REL most good spirit STAT-clever INTRANS-mercy
       'Of all the animals that live on the land, **it is you** who are the kindest, who know how to show mercy.'

    c. *****Iko*****   meh **luk** sanggup emé' m-uneng negkuh   inih, emé' n-(t)ulong*
       2SG.PVT EMPH REL willing come STAT-near 1SG.OBL this come AV-help

       negkuh," ki=Buayeh.
       1SG.OBL NAME.QUOT=Crocodile
       ' **It is you** who are willing to come near me, to come help me," said Crocodile.'

(81) *From "Raja Pulau Bunga" (Langub 2014a:144)*

    a. *"Ii, Inuk anak t<i>la',   iapeh amas kidih?"   ki=tukang*
       hey Inuk child <PFV.PV>throw where gold 1SG.REM NAME.QUOT=craftsman

       amas.
       gold
       ' "Hey, Inuk, forsaken child, where is my gold?" said the goldsmith.'

    b. *"Kian,   na luk keli'=kuh,"   ki=Awang   Muda.*
       who.knows NEG REL know=1SG.GEN NAME.QUOT=Awang Muda
       ' "Beats me, I don't know anything about it," said Awang Muda.'

    c. *"Uu, nam, **iko**   **luk** ne-ng-alap idih," keneh.*
       oh   no   2SG.PVT REL PFV-AV-take it   3SG.QUOT
       ' "Oh, no, **it's you** who took it," he said.'

    d. *"Me-tu, na   uih   ne-ng-(k)ekem, na   uih   ne-ng-alap amas*
       STAT-true NEG 1SG.PVT PFV-AV-touch   NEG 1SG.PVT PFV-AV-take gold

       midih," ki=Awang   Muda.
       2SG.REM NAME.QUOT=Awang Muda
       ' "It's true, I didn't touch it, I didn't take your gold," said Awang Muda.'

    e. *"Na peh iko   ne-ng-alap idih, iapeh ieh?   Iko   meh   sebuleng*
       NEG SUB 2SG.PVT PFV-AV-take it   where 3SG.PVT 2SG.PVT EMPH alone

       tungé' sikang inih," ki=tukang   amas.
       here   veranda this   NAME.QUOT=craftsman gold
       ' "If you didn't take it, where is it? You're alone here on the veranda," said the goldsmith.'

f. *"**Uih**   meh   **luk**   tungé'   sikang   inih   me-tu,   iemo'   na   uih*
   1SG.PVT   EMPH   REL   here   veranda   this   STAT-true   but   NEG   1SG.PVT

   ne-ng-alap   amas   midih,"   ki=Awang   Muda.
   PFV-AV-take   gold   2SG.REM   NAME.QUOT=Awang   Muda

' "True, **it is I** who am here on the veranda, but I did not take your gold," said Awang Muda.

8.5. TOPICALIZATION

When the need arises to single out a topic and then comment thereupon, Lun Bawang uses a topicalization construction consisting of the topicalized argument with second-position *peh* and final *em*, both of which frequently combine phonologically to be pronounced *pem* if no other word intervenes. This construction is identical to that used for clausal subordination (§9.5.1) except that the *peh. . . em* construction operates on only an argument rather than an entire clause. The topicalized argument is not merely fronted, but actually outside the clause commenting on the topic since it is often resumed by a pronoun therein, though it need not be so if it is the pivot of that clause. Several examples are shown in (82).

(82)   a. *Topicalization (Langub 2014a:158)*

      M-ata'   peh sidih   em,   ebpa-(e)n tala-(e)n=neh   neh ieh.
      STAT-unripe TOP whichsoever CONJ drop-PV   throw-PV=3SG.GEN then 3SG.PVT
      'Whichever ones [fruits] were unripe, he threw them down.'

   b. *Topicalization (Langub 2014a:161)*

      Tinek-en i=Tuk   Pelanuk   neh lek   sebuang lawid. Sebuang peh em
      boil-PV NAME=Mr. Mouse-deer then NARR part   fish   part   TOP CONJ

      (e)pub-in=neh   neh ieh   ku narar.
      smoke-PV=3SG.GEN then 3SG.PVT as smoked.fish
      'Mouse-deer boiled some of the fish. As for the rest, he smoked it.'

   c. *Topicalization (Langub 2014a:163)*

      i=Buayeh   peh em,   ruen=neh   ng-(k)uyum meh lek   dawa'
      NAME=Crocodile TOP CONJ do.PV=3SG.GEN AV-scoop   EMPH NARR group

      ubud.
      shoot
      'Crocodile, he scooped up all the shoots.'

d. *Topicalization (Langub 2014a:163)*

i=Tuk   Pelanuk   peh em, peri-tipa   neh   ieh.
NAME=Mr. Mouse-deer TOP CONJ REFL-pack then 3SG.PVT
'As for Mouse-deer, he packed up.'

e. *Topicalization (Langub 2014a:163)*

Dawa' lawid peh em,   makin   peh eco, makin   m-asi',   makin   me-dari
group fish   TOP CONJ increase SUB day increase STAT-few increase STAT-tiny

  teh (u)it-en   i=Buayeh.
  then bring-PV NAME=Crocodile
'As for the fish, as the days went on, Crocodile brought fewer and smaller of them.'

Topicalization may apply to more than just arguments, being frequently used to introduce adverbials in clause-initial position. Several examples illustrate:

(83) a. *Topicalized adverbial (Ganang et al. 2008:*mecing*)*

Mecing idan peh em   me-pengeh neh lati' mineh?
until   when TOP CONJ STAT-finish then farm 2SG.DIST
'When will your farm be completed?'

b. *Topicalized adverbial (Ganang et al. 2008:*eput*)*

Eput   tana' inih peh em   inan mo' lemulun.
all.over earth this TOP CONJ have PTCL person
'All over the world, there are people.'

c. *Topicalized adverbial (Ganang et al. 2008:*ngekiped*)*

Lawé kai   inih peh em   nge-kiped inih.
trip   1PL.EXCL this TOP CONJ AV-end   this
'This trip of ours, it is the last one.'

d. *Topicalized adverbial (Ganang et al. 2008:*seruked*)*

Seruked   inih peh em   kuman bua' mo' kai.
all.the.while this TOP CONJ eat.AV fruit only 1PL.EXCL
'All this time, we have just been eating fruit.'

e. *Topicalized adverbial (Ganang et al. 2008:*terawé*)*

Bang terawé=kuh   peh em   bulan enem tau   ng-imun n-(t)au' lati'.
in   thought=1SG.GEN TOP CONJ month six   1PL.INCL AV-start AV-do   farm
'In my opinion, we should start farming in June.'

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CHAPTER 9: MULTICLAUSAL STRUCTURES

Two striking facts stand out about Lun Bawang's smorgasbord of structures involving the linking of two or more clauses: First, it is one of the syntactic areas in which a generational divide is most apparent, with younger generations of speakers tending toward strategies greatly influenced by Malay and English. Nowhere is this generational gap more readily visible than in the choice of strategy to subordinate complete clauses, with older speakers using the distinctively Lun Bawang method of subordination via certain particle combinations (§9.5.1), while younger speakers strongly prefer conjunctions, sometimes even borrowed ones (§9.5.3). Second, the syntactic importance of the pivot argument comes to the forefront in these constructions. Nearly every clause-combining strategy is subject to the *pivot-only* constraint: in any clause that is in some way syntactically subordinate to another, only its pivot may be targeted for relativization or argument sharing by an argument from the matrix clause. The reader is therefore advised to consult §§6.6.1 and 6.6.3 to understand the most important properties of the pivot and of voice in general, with which the former is tightly connected, before proceeding to the sections in this chapter.

9.1. COMPLEMENT CLAUSES

Full, finite complement clauses are surprisingly uncommon in Lun Bawang, but they may be found in such constructions as indirect speech (84a–b) or used as an alternative to argument sharing constructions (85a–b), distinguished from argument sharing in the presence of an overt pivot in the complement clause. Complement clauses are in fact marked out by their total lack of any features that would distinguish them from a single, standalone clause, as the following examples illustrate.[1]

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[1] The original source for (85c) may be viewed at https://www.youtube.com/watch?v=mkRfGZF2X_0.

(84) a. *Complement clause in indirect speech (Langub 2014a:182)*

"*i=Buayeh   m-(b)ala, [ieh   ineh   me-lau].   i=Sapi'   m-(b)ala,*
NAME=Crocodile AV-word [3SG.PVT that.DIST STAT-empty] NAME=Cow AV-word

   [ieh   ne-n-(t)ulong ni=Buayeh],"   *ke=dawa'   pung   teh.*
   [3SG.PVT PFV-AV-help NAME.OBL=Crocodile] QUOT=group animal then
' "Crocodile says that he's hungry, but Cow says that he helped Crocodile," the animals
then said.'

  b. *Complement clause in indirect speech (Langub 2014a:183)*

"*Mo, Sapi', buri=muh,   [iko   ne-n-(t)ulong ni=Buayeh]."*
yes   Cow   speak=2SG.GEN [2SG.PVT PFV-AV-help NAME.OBL=Crocodile]
' "Okay, Cow, you say that you helped Crocodile." '

(85) a. *Complement clause as alternative to argument sharing (FN2:45; contrast (87a))*

Uih   pian [iko   kuman terutung   ineh].
1SG.PVT want [2SG.PVT eat.AV porcupine that]
'I want you to eat that porcupine.'

  b. *Complement clause as alternative to argument sharing (FN2:45; contrast (87b))*

Uih   me-tot   [iko   kenen balang].
1SG.PVT STAT-afraid [2SG.PVT eat.PV tiger]
'I am afraid that you'll be eaten by a tiger.'

  c. *Complement clause as alternative to argument sharing (Berauk Taie Idi Gerit Sinawat:06:05; contrast (87c))*

Me-repet   [muyuh nge-rawé nekai   dueh tepum].
STAT-hope [2PL   AV-think 1DU.EXCL.OBL two   grandparent.2]
'[I] hope you'll think of us, your grandparents.'

9.2. BASIC ARGUMENT SHARING CONSTRUCTIONS

Far more common than the full complement clause is the argument sharing construction. In Lun

Bawang, an argument sharing construction joins two clauses that semantically share an argument

by embedding one within the other. That argument is normally overt in the first ("matrix") clause

and is omitted in the second ("embedded" clause), and the gap in the latter corresponding to the

omitted argument must be the clausal pivot.[2] Indeed, the most striking property of Lun Bawang

[2]Under this characterization, relativization and other such types of clause-combining strategies could be argued to

fall within the umbrella of argument sharing constructions. They are, nonetheless, treated in separate sections so that

the unique syntactic characteristics of each may be given appropriate attention. Note also that this characterization of

argument sharing constructions is that, unlike in a language such as English, the shared argument, whatever its role in the first clause, corresponds not to the subject, but to the pivot of the embedded clause (see §§6.6.3, 7 for these terms and the distinction between them).

Constructions in which the subject of the matrix clause is shared with the pivot of the embedded clause normally have an intransitive matrix clause, such as in examples (86a–c):

(86) a. *Subject shared as pivot of AV (FN2:37)*

      Uih   *me-tot*   *[___PVT*   *kuman terutung].*
      1SG.PVT STAT-afraid [[GAP_PVT] eat.AV porcupine]
      'I am afraid to eat porcupine.'

    b. *Subject shared as pivot of PV (FN2:37)*

      Uih   *me-tot*   *[___PVT*   *kenen balang].*
      1SG.PVT STAT-afraid [[GAP_PVT] eat.PV tiger]
      'I am afraid of being eaten by a tiger.'

    c. *Subject shared as pivot of intransitive (Langub 2014a:60)*

      Me-tot   *neh lek*   *i=Labau*   *ineh*   **r<em>uat.**
      STAT-fear then NARR NAME=Labau that.DIST <INTRANS>exit
      'Labau was afraid to go out.'

Rather more common are constructions where the matrix clause's object or oblique is shared with the pivot of the embedded clause, as illustrated in (87a–b):[3]

(87) a. *Object shared as pivot of AV (FN2:45; contrast (85a))*

      Uih   *pian nemuh*   *[___PVT*   *kuman terutung*   *ineh].*
      1SG.PVT want 2SG.OBL [[GAP_PVT] eat.AV porcupine that]
      'I want you to eat that porcupine.'

    b. *Oblique shared as pivot of PV (FN2:45; contrast (85b))*

      Uih   *me-tot*   *nemuh*   *[___PVT*   *kenen balang].*
      1SG.PVT STAT-afraid 2SG.OBL [[GAP_PVT] eat.PV tiger]
      'I am afraid that you'll be eaten by a tiger.'

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argument sharing includes both those constructions referred to by the names "raising" and "control." The data needed to distinguish between them in Lun Bawang are not readily available at present.

   [3]See note 1 for the original source for (87c). Note also that the oblique marking of the second-person pronoun in (87a) as oblique is just differential object marking and not an indication of syntactic status.

c. *Oblique shared as pivot of PV (Berauk Taie idi Gerit Sinawat:03:25; contrast (84c))*

Me-repet   uih   nemuyuh [[___PVT] nge-sikula' do'-do'].
STAT-hope 1SG.PVT 2PL.OBL [[GAP_PVT] AV-school   REDUP-good]
'I hope you'll study well.'

(87a–b) in particular are notable in that they differ from (85a–b) in §9.1 above only by the case of a single pronoun. In those two examples, the pivots of the embedded clauses, in each case *iko* '2SG,' because they belong to the complement clause, take the pivot-marked form, in accordance with the properties of the embedded verb, as is expected in that construction (§9.1). On the other hand, in (87a–b), this argument instead belongs to the matrix clause, as shown by its taking the oblique form, determined thus by the matrix verb, as is characteristic of an argument sharing construction. If either argument were replaced by a non-human noun, the lack of overt case marking would result in an absence of any discernible difference to indicate whether a sentence such as (88) contains a complement clause or is an argument-sharing construction.

(88) *Ambiguity: Finite embedded clause, or argument sharing? (FN2:45)*

Uih   me-tot   balang ineh kuman negkuh.
1SG.PVT STAT-afraid tiger   that eat.AV 1SG.OBL
'I am afraid that that tiger will eat me.'

Argument sharing constructions also allow for an instrument to be the shared argument; hence, (89a–c) are equivalent:

(89) a. *Object shared as pivot of AV (FN2:64)*

Uih   me-repet nemuh   [___PVT n-(t)ebpeng kayuh ineh ku   kepak inih].
1SG.PVT STAT-hope 2SG.OBL [[GAP_PVT] AV-fell   tree   that INST axe   this]
'I hope you will fell that tree with this axe.'

b. *Object shared as pivot of PV*

Uih   me-repet kayuh ineh [___PVT tebeng-en=muh   ku   kepak inih].
1SG.PVT STAT-hope tree   that [[GAP_PVT] fell-PV-2SG.GEN INST axe   this]
'I hope you will fell that tree with this axe.'

c. *Object shared as pivot of IV (FN2:64)*

Uih   me-repet   kepak inih [___PVT   pin-(t)ebpeng=muh kayuh ineh].
1SG.PVT STAT-hope axe   this [[GAP_PVT] IV-fell=2SG.GEN   tree   that]
'I hope you will fell that tree with this axe.'

Additional evidence concerning the precise structure of argument sharing constructions may be found in examples such as (90a–b):

(90) a. *Evidence for embedding within verbal complex (Langub 2014a:128)*

Ng-ecuk netau   [___PVT   kuman bua'] ieh.
AV-order 1PL.INCL.OBL [[GAP_PVT] eat.AV fruit] 3SG.PVT
'He told us to eat a fruit.'

b. *Evidence that shared argument is in the matrix clause (Langub 2014a:58)*

Idih   peh lek   Ilan kedih   em, ieh   neh lek   duk-en=neh
present SUB NARR Ilan QUOT.REM CONJ 3SG.PVT then NARR order-PV=3SG.GEN

[___PVT   emé' pa atun].
[[GAP_PVT] go   at front]
'When Ilan came, so they say, [Labau] told him to walk in front of her.'

In (90a), the pronoun *ieh*, which is without question the pivot of the matrix clause, occurs *after* the embedded clause. Since the two places a clausal pivot may occur are before the verb or after the entire verbal complex, this placement necessarily means that the entire clause *kuman bua'* is embedded within the matrix clause's verbal complex, which is, in its totality, *ngecuk netau kuman bua'*. In (90b), the position of the pivot reveals another important point: the fact that this argument *ieh*, which is semantically shared between the matrix and embedded clauses, occurs before the matrix verb necessarily means that it is syntactically within the matrix clause and not the embedded clause. This fact in turn confirms that oblique marking on the shared arguments in, e.g., (87a–c, 89a, 90a) is due to that argument's belonging to the main clause and not from some type of exceptional case marking.

A particularly important type of argument sharing construction is the periphrastic causative using forms of the verb *tau'* 'make, do.' (91a–d) illustrate four possible variations on the periphrastic

causative using the sentence 'I made him eat rice.'[4] These examples also provide further evidence of the biclausal status of argument sharing constructions, namely that (a) the verb denoting the caused action may optionally take aspect marking, unlikely if it is within the matrix clause but subordinate to the matrix verb, and (b) that same verb may appear in any voice, unlike a verb subordinated to another within a single clause, which must display AV morphology (cf. §§6.6.3.2.2, 6.6.3.4).

(91) a. *Periphrastic causative: both verbs AV (FN1:99)*

        Uih   ne-nge-n-(t)au' neneh   [____{PVT} (ne-)kuman nuba'].
        1SG.PVT PFV-AV-AV-do 3SG.OBL [[GAP_{PVT}] (PFV-)eat.AV rice]
        'I made him eat rice.'

    b. *Periphrastic causative: matrix verb AV, subordinate verb PV (FN1:99)*

        Uih   ne-nge-n-(t)au' nuba' [____{PVT} kinan/kenen=neh].
        1SG.PVT PFV-AV-AV-do rice [[GAP_{PVT}] eat.PFV.PV/eat.PV=3SG.GEN]
        'I made him eat rice.'

    c. *Periphrastic causative: matrix verb PV, subordinate verb AV (FN1:99)*

        T<in>au'=kuh   ieh   [____{PVT} (ne-)kuman nuba'.]
        <PFV.PV>do=1SG.GEN 3SG.PVT [[GAP_{PVT}] (PFV-)eat.AV rice]
        'I made him eat rice.'

    d. *Periphrastic causative: both verbs PV (FN1:99)*

        T<in>au'=kuh   nuba' [____{PVT} kinan/kenen=neh].
        <PFV.PV>do=1SG.GEN rice [[GAP_{PVT}] eat.PFV.PV/eat.PV=3SG.GEN]
        'I made him eat rice.'

From (91a–d), one may observe that when the 'do' verb is in the perfective aspect, the subordinate verb may appear in either the perfective or imperfective aspect, with no apparent distinction in meaning. One may likewise observe that combinations of voice among the two clauses are possible. However, depending on the matrix verb used, varying the voice of the embedded clause may alter the meaning of the sentence. (92a) expresses normally the notion that Baru' asked Taie to tie up a buffalo, and although (92b–c) are also grammatical, they are judged semantically unusual:

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[4]The form *nengenau'* appears to be a doubly marked AV, where *nau'* has been reanalyzed as the root instead of as the AV of *tau'*; this reanalysis was probably done in order to avoid having a monosyllable.

(92) a. *Object shared as pivot of AV (FN2:74)*

    i=Baru'   *ne-ng-ecuk*   *ni=Taie*   *[___PVT*   *ng-abet kerubau inih ku*
    NAME=Baru' PFV-AV-order NAME.OBL=Taie [[GAP_PVT] AV-tie buffalo this INST
      abet ineh].
      rope that]
    'Baru' asked Taie to tie up this buffalo with that rope.'

    b. *Object shared as pivot of PV (FN2:74)*

    ?i=Baru'   *ne-ng-ecuk*   *kerubau ineh [___PVT*   *bet-in i=Taie*   *ku*   *abet*
    NAME=Baru' PFV-AV-order buffalo   that   [[GAP_PVT] tie-PV NAME=Taie INST rope
      ineh].
      that]
    'Baru' asked this buffalo to be tied up with that rope by Taie.'

    c. *Object shared as pivot of IV (FN2:74)*

    ??i=Baru'   *ne-ng-ecuk*   *abet ineh [___PVT*   *ping-abet i=Taie*   *kerubau*
    NAME=Baru' PFV-AV-order rope that [[GAP_PVT] IV-tie   NAME=Taie buffalo
      inih].
      this]
    'Baru' asked that rope to be used by Taie to tie up this buffalo.'

(92b), though grammatical, is unusual, sounding to consultants as though the Baru' has made the request to the buffalo rather than to Taie. (92c), then, is stranger yet, sounding as though Baru' is making the request to the rope. This semantic oddity further suggests that the shared argument is indeed the grammatical object of the matrix verb and therefore in the matrix clause. The variation of semantics with voice also occurs with verbs such as *pian* 'want.' In a hypothetical scenario, a speaker may utter the subject-sharing sentence (93).

(93) *Subject sharing (FN2:43)*

    Uih   *pian [___PVT*   *ng-até lematek inih].*
    1SG.PVT want [[GAP_PVT] AV-die leech   this]
    'I want to kill this leech.'

In such a case, someone who did not properly hear the end of the statement might ask for clarification with a wh-question. Only (94b) with periphrastic PV would have the correct meaning, and (94a) with morphological PV, though grammatical, has a meaning entirely other than what is intended.

(94) a. *Morphological PV shifts 'wanting' to patient, giving wrong meaning (FN2:43)*

    Enun pian [____PVT   pitay-en=muh]?
    what want [[GAP_PVT] kill-PV=2SG.GEN]
    'What wants to be killed by you?'

    b. *Periphrastic PV keeps 'wanting' on agent, yielding correct meaning (FN2:43)*

    Enun pian [____PVT   ruen=muh   ng-até]?
    what want [[GAP_PVT] do.PV=2SG.GEN AV-die]
    'What do you want to kill?'

The voice of the matrix verb, while normally left to the speaker's choice, may be limited by any operation to which the pivot-only constraint applies, including wh-fronting, as in both (94a–b) and (95a–b), which must consequently use PV in the matrix clause:

(95) a. *WH-extraction from PV, shared with agent (FN1:107)*

    Idé [____PVT   <i>cuk=muh   [____PVT   ne-m-(b)ukut   neneh]]?
    who [[GAP_PVT] <PFV.PV>order=2SG.GEN [[GAP_PVT] PFV-AV-punch 3SG.OBL]]
    'Whom did you ask to punch him?'

    b. *WH-extraction from PV, shared with patient (FN1:107)*

    Idé [____PVT   <i>cuk=muh   [____PVT   b<in>ukut=neh]]?
    who [[GAP_PVT] <PFV.PV>order=2SG.GEN [[GAP_PVT] <PFV.PV>punch=3SG.GEN]]
    'Whom did you ask him to punch?'

Another common use of argument sharing constructions is to express purpose. Just as in any other argument sharing construction, in this type of purpose clause, the pivot of the embedded clause is targeted for sharing by an argument from the matrix clause. (96a–b) illustrate:

(96) a. *Purpose clause with shared agent (Langub 2014a:162)*

    Ruen i=Tuk   Pelanuk   ngeruruk-nge-ruruk neh lek   puet   dawa'
    do.PV NAME=Mr. Mouse-deer REDUP-AV-poke   then NARR backside group

    lal,   [____PVT   nge-n-(t)au' nedeh   nge-kok].
    chicken, [[GAP_PVT] AV-AV-make 3PL.OBL AV-crow]
    'Mouse-deer poked all the chickens in the rear with a stick to make them crow.'

    b. *Purpose clause with shared patient (Langub 2014a:167)*

    "Iko   emé' m-(b)eré ubat   dih [____PVT   kenen ina']."
    2SG.PVT go   AV-give medicine that [[GAP_PVT] eat.PV mother]
    ' "You go give the medicine for Mother to eat." '

Finally, several of these phenomena can be observed together in (97), which contains two argument sharing constructions, the second of which contains purpose clauses:

(97) *Multiple co-occurring argument sharing constructions (Langub 2014a:136)*

    M-uli'   *peh lek lun* *sakai kedih*   *em, duk-en* *Raja*
    INTRANS-return SUB NARR people visitor QUOT.REM CONJ order-PV King

      Pulau Bunga ideh   *neh*   *[___PVT* *n-(t)anga akan [___PVT* *it-en*
      Pulau Bunga 3PL.PVT that.DIST [[GAP_PVT] AV-wrap food [[GAP_PVT] take-PV

      m-uli'],   *[___PVT* *it-en*   *ku balu'*   *arang dalan]].*
      INTRANS-return] [[GAP_PVT] take-PV as provision among road]]
    'When they went back, so they say, the King of Pulau Bunga told them to wrap food to be taken back, to be taken as provisions for the road.'

9.3. ADVERBIAL USE OF NOMINALIZED CLAUSES

Nominalized clauses may be used adverbially when following either *kereb* 'time' or *ku* 'because (of).' Though these constructions are not syntactically identical, with *kereb* phrases being complex noun phrases and *ku* phrases being prepositional phrases, they share a number of behaviors in common. That such clauses are nominalized is evident from the presence of the demonstrative *dih* 'that' in contexts where it could not possibly be syntactically linked to any other noun. Likewise, these constructions commonly occur between the verbal complex of the matrix clause and its pivot, though they may be dislocated to the edge of the clause—usually right, but left is also allowed—if leaving them in place would cause difficulty in parsing. Both *ku* and *kereb* in the dislocated use have since grammaticalized as true conjunctions, for which see §9.5.3. Several variations on these constructions are shown in the examples below:

(98) Ku *clause* in situ *(Ganang* et al. *2008:*murung*)*

    M-(b)urung negkuh *ku*   *[uih*   *na*   *awan dih]*   *muyuh.*
    AV-gossip 1SG.OBL CAUSE [1SG.PVT NEG spouse that.REM] 2PL
    'You are gossiping about me because I do not have a spouse.'

The nominalized clause accompanying causal *ku* may also lack an overt pivot, which is targeted for sharing by another argument. (99a–e) are illustrative:

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(99) a. Ku *clause* in situ *with shared pivot (Ganang* et al. *2008:*nekabuk*)*

Nek-abuk ku [___PVT *ne-ng-irup burak dih]* *ideh* *neh.*
PFV-drunk CAUSE [[GAP_PVT] PFV-AV-drink rice.wine that.REM] 3SG.PVT that.DIST
'They got drunk from drinking rice wine.'

b. *Dislocated* ku *clause with shared pivot (Ganang* et al. *2008:*dat ali*)*

Pelaba dat ali kai ku [___PVT *t<i>can muyuh dih]*
too.much bad silence 1PL.EXCL CAUSE [[GAP_PVT] <PFV.PV>leave 2PL that.REM]
'We were very lonely since you left.'

c. Ku *clause with shared pivot (Langub 2014a:162)*

Kok-kok neh lek dawa' lal, me-rugag ku [___PVT *reruk-en*
crow-crow then NARR group chicken, STAT-annoy CAUSE [[GAP_PVT] poke-PV

i=Tuk Pelanuk dih].
NAME=Mr. Mouse-deer that.REM]
'Then all the chickens crowed, annoyed at being poked by Mouse-deer.'

d. Ku *clause with shared pivot (Langub 2014a:177)*

N-(t)angi' ku [___PVT *k<in>uyo i=Becuk* "*busir kiung*"
AV-cry CAUSE [[GAP_PVT] <PFV.PV>insult NAME=Monkey "abscess face"

dih].
that.REM]
'He cried at having been insulted as "abscessed-face" by Monkey.'

e. Ku *clause with shared pivot (Langub 2014a:165)*

"*Iuk peh tudo ku* [___PVT *ng-inét nemuh] m-ecing*
continue SUB sit CAUSE [[GAP_PVT] AV-wait 2SG.OBL] INTRANS-arrive

m-uned eco, oo na mek-inét=kuh peh."
STAT-center day, oh NEG STAT-wait=1SG.GEN already
' "I kept sitting waiting for you until midday, oh, I couldn't wait any longer." '

A distinctive characteristic of *kereb* with a nominalized clause is that, rather than the clause having

an overt pivot, a pronoun targeting the pivot for sharing cliticizes to the word *kereb* itself.

(100) a. Kereb *phrase* in situ *(Ganang* et al. *2008:*nepapu'*)*

<I>lap=kuh kereb ne-papu' neneh dih buku kidih.
<PFV.PV>take=1SG.GEN time PFV-meet 1SG.OBL that.REM book 1SG.REM
'I took my book when I met him.'

b. Kereb *phrase* in situ *(Ganang* et al. *2008:*linipo')

L<in>ipo'=neh   *kereb=muh*   *rudap dih*   *iko.*
<PFV.PV>evade=3SG.GEN time=2SG.GEN sleep that.REM 2SG.PVT
'He sneaked away from you when you were sleeping.'

c. Kereb *phrase dislocated (Ganang* et al. *2008:*guta*)*

G<u>ta   *ebpa' dih*   *uih*   *kereb=muh*   *n-(d)awar dih.*
<INTRANS>cross water that.REM 1SG.PVT time=2SG.GEN AV-call   that.REM
'I was crossing the river when you called.'

d. Kereb *phrase topicalized (Ganang* et al. *2008:*kereb*)*

Kereb=neh   *n-ecing*   *dih*   *peh em*   *na*   *uih*   *idih*   *dai'*
time=3SG.GEN PFV-arrive that.REM TOP CONJ NEG 1SG.PVT present there
> *ruma'.*
> house
'When he arrived, I was not at home.'

The last example in (100d) demonstrates that in this use, the entire *kereb* phrase containing the nominalized clause is a single nominal phrase, as the second-position particle *peh* does not occur within it as it would if it were a finite clause. Rather, the entire *kereb* phrase is topicalized (cf. also §8.5). From this use, however, reanalyzing of the *kereb* noun phrase as a subordinate clause requires only a short step; this reanalysis has indeed occurred, for which see §9.5.3.

9.4. PARTICIPIAL PHRASES

When an argument is shared by the two clauses, they may be conjoined without any other overt syntactic indication, and the second clause's pivot is targeted for sharing by an argument from the first. (101a–d) illustrates:

(101)   a.   *Participial phrase (Langub 2014a:168)*

Arod-arod   *meh lek*   *i=Tuk*   *Pelanuk*   *neh*   *[___$_{PVT}$*   *it-en*
REDUP-scream EMPH NARR NAME=Mr. Mouse-deer that.DIST [[GAP$_{PVT}$] take-PV
> *i*   *Buayeh*   *emé' uned*   *ebpa' ineh].*
> NAME Crocodile go   middle river   that]
'Mouse-deer screamed, [as he was] being taken by Crocodile into the midst of the river.'

b. *Participial phrase (Langub 2014a:159)*

Rimud kabing, rimud biring   meh   lek   i=Buayeh   [___PVT   n-(s)ier
smile left   smile lopsided EMPH NARR NAME=Crocodile [[GAP_PVT] AV-see

  ni=Tuk   Pelank   ineh].
  NAME.OBL=Mr. Mouse-deer that.DIST]
'Crocodile smiled lopsidedly, seeing Mouse-deer.'

c. *Participial phrase (Langub 2014a:162)*

N-(d)alan neh lek   i=Tuk   Pelanuk   [___PVT   m-(b)abeh
AV-walk   then NARR NAME=Mr. Mouse-deer [[GAP_PVT] AV-carry.on.back

  bakang atid],   [___PVT   ng-abin   bakal ilang   nidih].
  rattan.carrying.frame] [[GAP_PVT] AV-wear.around.waist ornate.sword 3SG.REM]
'Mouse-deer then left, carrying his pack and wearing his sword.'

d. *Participial phrase (Langub 2014a:173)*

N-(d)alan neh lek   i=Tuk   Pelanuk   ineh   [___PVT   n-(t)ecan
AV-walk   then NARR NAME=Mr. Mouse-deer that.DIST [[GAP_PVT] AV-leave

  ni=Buayeh   peh].
  NAME.OBL=Crocodile already]
'Mouse-deer then departed, leaving Crocodile behind.'

9.5. SUBORDINATION OF FULL CLAUSES

Subordination of one full clause to another may occur in one of two ways, the difference between which is one of the most prominent generational divides in the use of the language. Today's youth tend to favor setting off a dependent clause with what is easily recognizable as a subordinating conjunction, very likely due to the influence of Malay and English (§9.5.3). The traditional strategy still employed by older generations of speakers, however, is the much more distinctively Lun Bawang use of particles (§9.5.1) as a generalized subordination mechanism. These two strategies and the variations thereon are discussed and robustly exemplified in turn in the subsections immediately below.

9.5.1 LINKING CLAUSES WITH PARTICLES

The traditional method for subordination in Lun Bawang, amply attested in the corpus of oral literature but rarely used by young speakers today, is to mark the dependent clause with the second-position particle *peh*, which functions as an all-purpose subordinator and may be variously trans-

lated 'if,' 'when,' or otherwise as the context requires. The dependent clause with second-position *peh* always occurs first and quite often ends with the final particle *em*, the generalized conjunction.[5] The main clause is also usually marked by one of several second-position particles. The most common of these is *neh*, which denotes temporal or logical succession and is best translated 'then.' (102) illustrates this structure, which may also be observed in numerous other examples throughout this work:[6]

(102)   a. *Particle-based subordination (Mina Taie, p.c., May 2018)*

    Me-lau   ***peh*** *nai,*   *kuman* ***neh*** *nai.*   *Me-pering* ***peh*** *nai,*   *ng-irup*
    STAT-hungry **SUB** INDEF, eat.AV **then** INDEF. STAT   **SUB** INDEF, AV-drink

    neh *nai.*
    then INDEF
    'If you're hungry, then eat. If you're thirsty, then drink.'

   b. *Particle-based subordination (Langub 2014a:176)*

    "Ruen lun   *ng-uyo* ***peh*** *iko,*   *ruen nai*   *ng-uyo* ***neh*** *ieh*
    do.PV   person AV-insult **SUB** 2SG.PVT, do.PV INDEF AV-insult **then** 3SG.PVT

    lemubed."
    return
    ' "If someone insults you, then you insult him back." '

   c. *Particle-based subordination (Langub 2014a:162)*

    Me-lak   ***peh*** *lek*   *nuba' nidih*   ***em,***   *or-en=neh*   ***neh*** *lek*
    STAT-cook **SUB** NARR rice   3SG.REM **CONJ**, scoop-PV=3SG.GEN **then** NARR

    ieh.
    3SG.PVT
    'When his rice was cooked, he then scooped it.'

   d. *Particle-based subordination (FN3:54)*

    Pelaba   ***peh*** *akan=muh*   *nuba' Tuan*   *inih, me-lemuh* ***neh*** *iko.*
    too.much **SUB** eat=2SG.GEN rice   White.Man this, STAT-fat   THEN 2SG.PVT
    'If you eat too many of these french fries, then you'll become fat.'

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[5]Interestingly, this combination of particles is exactly the same one used in topicalization; cf. §8.5.

[6](102d) is a joke, using the phrase *nuba' Tuan* 'white man's rice' as a term for french fries, which a speaker had acquired in town and brought home to the highlands; he used the term to attempt to explain them to his elderly parents, who were unfamiliar with the dish.

In place of *neh*, the main clause may use second-position *mo'* instead if it follows a root or an intransitive predicate, as the following illustrate:

(103) a. *Particle-based subordination (Ganang* et al. *2008:*murak*))*

T<i>bpeng=kuh   **peh** *bulu'* *dih*   ***em,*** *m-urak* ***mo'*** *ieh.*
<PFV.PV>fell=1SG.GEN **SUB** bamboo that.REM **CONJ** STAT-split **PTCL** 3SG.PVT
'When I felled the bamboo, it split open.'

b. *Particle-based subordination (Ganang* et al. *2008:*kinipet*)*

K<in>ipet   *kuda' dih*   **peh** *iur=neh*   ***em,*** *keneh* ***mo'*** *mateh*
<PFV.PV>wag horse that.REM **SUB** tail=3SG.GEN **CONJ** hit   **PTCL** eye

  i=Labo.
  NAME=Labo
'When the horse wagged its tail, it hit Labo's eye.'

c. *Particle-based subordination (Ganang* et al. *2008:*nesikatul*)*

Ne-si-katul   **peh** *uko' dih*   ***em,*** *taka* ***mo'*** *keling nidih.*
PFV-MID-struggle **SUB** dog that.REM **CONJ** untie **PTCL** rope   3SG.REM
'When the dog struggled, its rope came untied.'

d. *Particle-based subordination (Ganang* et al. *2008:*kilep*)*

<In>iup=kuh   **peh** *lapung dih*   ***em,*** *k-ilep*   ***mo'***
<PFV.PV>blow=1SG.GEN **SUB** lamp   that.REM **CONJ** ACH-extinguish **PTCL**

  ieh.
  3SG.PVT
'When I blew on the lamp, it went out.'

Less commonly, subordination may occur with *pana'* 'however (much), even (though),' and final *em* marking the subordinate clause. The main clause may optionally take a second-position particle, sometimes the *mo'* seen in the examples immediately preceding, but more often *teh* 'still.' Some examples of this usage are provided in (104). For more on *pana'* and its various functions, see especially §10.4.

(104) a. *Subordination with* pana' *(Ganang* et al. *2008:*mekudik*)*

N-(s)ier negkuh   *inih remarar* ***pana'*** ***em,*** *mek-udik=kuh*   **teh**
AV-see   1SG.OBL this old   **however CONJ** STAT-ascend=1SG.GEN **still**

  Pegkung Murud.
  Mountain Murud
'However old you may think I am, I can still climb Mt. Murud.'

b. *Subordination with* pana' *(Ganang et al. 2008:*sumad*)*

S<um>ad	***pana'***	*iko*	*emé'*	***em***	*na*	***teh***	*lun*	*m-(b)eré*	*luk*
<INTRANS>insist	**however**	2SG.PVT	go	**CONJ**	NEG	**still**	person	AV-give	REL

nan=muh	*tudo*	*bang*	*kerita'*	*ineh.*
AUX=2SG.GEN	sit	in	car	that.DIST

'However much you insist on going, no one will give you a place to sit in the car.'

c. *Subordination with* pana' *(Ganang et al. 2008:*tengien*)*

Tengi(')-en=muh	***pana'***	*laput*	*ineh*	***em***	*na*	***teh***	*ineh*
cry-PV=2SG.GEN	**however**	cloud	that.DIST	**CONJ**	NEG	**still**	that.DIST

m-ebpeh	*ret*	*i=langit.*
INTRANS-fall	from	LOC=sky

'However much you cry for the clouds, they will still not fall from the sky.'

d. *Subordination with* pana' *(Ganang et al. 2008:*na binang*)*

Emé'	***pana'***	*ieh*	*ineh*	*m-(b)aya'*	*netau*	***em***	*na*	*binang*
go	**however**	3SG.PVT	that.DIST	AV-follow	1PL.INCL.OBL	**CONJ**	NEG	useful

nineh.
3SG.DIST

'Even if he comes with us, he will be useless.'

A conditional sentence whose antecedent contains a contrary-to-fact condition follows these same syntactic rules for subordination. Such sentences show a strong preference for marking the antecedent for perfective aspect, but this marking is not strictly obligatory, as (105b) shows.[7]

(105) a. *Counterfactual (Langub 2014a:167)*

"Na	*peh*	*m-ai'*	*ni*	*tinam*	*eca'*	*em,*	*na*	*uih*
NEG	SUB	STAT-pity	NAME.OBL	mother.2SG	brother.in.law	CONJ,	NEG	1SG.PVT

inih	*emé'."*
this	go

' "If I didn't feel pity for your mother, O brother, I wouldn't go." '

---

[7]The term *eca'* in (105a), while literally meaning 'brother-in-law,' is rendered 'brother' in the free translation for naturalness' sake; it is not, in this instance, intended to be taken literally, but rather as a term of affection among comrades.

b. *Counterfactual (Ganang* et al. *2008:*nginanga'*)*

Na	*peh*	*uih*	*ngi-nanga'*	*ku*	*ieh*	*isut*	*dih*	*ké,*
NEG	SUB	1SG.PVT	AV-respect	CAUSE	3SG.PVT	small	that.REM	EMPH

b<i>bal=kuh	*ieh.*
<PFV.PV>beat=1SG.GEN	3SG.PVT

'If I didn't respect that he's young, I would have beaten him.'

9.5.2 TEMPORAL CLAUSES WITH ROOT AND QUOTATIVE

Another type of subordinate clause, relatively less common, consists of a verbal root and a nominal (noun or pronoun) in the "quotative" form, i.e., with the *ke-* pronoun (§4.3.1), or, if a human noun, preceded by the particle *ki*.[8] This usage indicates that the event indicated by the main clause occurs either contemporaneously or in quick succession with that denoted by the subordinate clause. If translated into English, the dependent clause is best set off by a conjunction such as 'as,' 'while,' or 'when.'

Syntactically speaking, these clauses may be intransitive or transitive. In the latter type, the patient follows the "quotative" agent, but a second-position particle may intervene between the two, indicating that the patient falls outside the verbal complex. This fact of word order is characteristic of PV, but it is not by itself sufficient to demonstrate that that voice is indeed in play. Some examples are given in (106) and (107), the former being intransitive and the latter being transitive:

(106) a. *Root plus quotative construction (Ganang* et al. *2008:*tekuku'*)*

Sier	*kegkuh*	*em,*	*te-kuku'*	*balud*	*dih*	*nan*	*angat*	*lunuk*
see	1SG.QUOT	CONJ	STAT-sit	green.pigeon	that.REM	on	branch	fig.tree

dih.
that.REM

'As I looked, the green pigeon was sitting on the branch of the fig tree.'

---

[8]Why agents may in this one construction be marked with pronouns otherwise used for reporting speech is a mystery. One may reasonably ask whether the fact that other Lun Bawang dialects use the *ke-* forms as obliques is relevant, but even so, any connection to this usage is far from obvious.

b. *Root plus quotative construction (Ganang et al. 2008:*li*)*

Li   kegkuh   pa puet em, idih   uko' dih   nge-rada'
look.over.shoulder 1SG.QUOT at rear CONJ present dog that.REM AV-chase
  negkuh.
  1SG.OBL
'As I looked back over my shoulder, there was the dog chasing me.'

c. *Root plus quotative construction (Ganang et al. 2008:*tekukab*)*

Ecing kegkuh   ina   em,   te-k-ukab   neh tanga' ineh.
arrive 1SG.QUOT just.now CONJ STAT-ACH-open then door   that.DIST
'As I arrived just now, the door was already open.'

(107) a. *Root plus quotative construction (FN2:57)*

Terawé   keneh   uyo   i=Pelanuk...
remember 3SG.QUOT insult NAME=Mouse-deer
'As he remembered Mouse-deer's insult. . . .'

b. *Root plus quotative construction (Langub 2014a:158)*

Akan ki=Tuk   Pelanuk   peh lek   bua' ilang ineh kedih
eat   NAME.QUOT=Mr. Mouse-deer SUB NARR fruit *ilang* that QUOT.REM
  em...
  CONJ
'As Mouse-Deer ate the *ilang* fruit, they say, . . .'

c. *Root plus quotative construction (Ganang et al. 2008:*ebpa*)*

Ebpa kegkuh   bua' datu' dih   em, lé-lé   teh ieh   in-ebpeh
drop 1SG.QUOT fruit durian that.REM CONJ REDUP-almost yet *3sg.pvt* PFV-fall
  nan kukud i=Dawat.
  on foot   NAME=Dawat
'When I dropped the durian, it almost fell on Dawat's foot.'

d. *Root plus quotative construction (Ganang et al. 2008:*udik*)*

Emé' Medeleng peh iko   em, udik   kemuh   peh Irang Ilad em,
go   Medeleng SUB 2SG.PVT CONJ ascend 2SG.QUOT SUB slope Ilad CONJ
  m-uneng   neh iko   dai'.
  STAT-close then 2SG.PVT there
'If you go to Medeleng, when you ascend Ilad Hill, you are almost there.'

9.5.3 SUBORDINATION VIA CONJUNCTION

Probably due to the influence of Malay and English, subordination via a clause-initial conjunc-

tion is becoming increasingly common. Some conjunctions used in such a construction include *ku*

or *ngecekuh* 'because,' *kereb* 'when,' *kudeng* 'if,'[9] *agan (tu) pana'* or *sagan pana'* 'although,' *pelé*

'in order to, so that,' and *pad* 'until, so that.' The following examples illustrate their usage:

(108) a. *Subordination with clause-initial conjunction (FN1:101)*

   Agan pana' kayuh ineh   na   n-até,   t<i>bpeng   delai ineh.
   even.though tree   that.DIST NEG PFV-die <PFV.PV>fell man that
   'Even though that tree had not died, that man cut it down.'

   b. *Subordination with clause-initial conjunction (FN1:101)*

   Ngecekuh kayuh ineh   pengeh n-até,   t<i>bpeng   lai sineh.
   because   tree that.DIST finish PFV-die <PFV.PV>fell man that.DIST.SPEC
   'Because that tree was already dead, the man cut it down.'

The use of *ku* 'because' and *kereb* 'when' functions in the same fashion, these having been gram-

maticalized as true conjunctions from their uses described in §9.3. In the use of the latter, pronouns

behave as they would in any normal clause, rather than the agent cliticizing to *kereb*.

(109) a. Ku *as a subordinating conjunction (Langub 2014a:183)*

   Me-ria'   neh lek dawa' pung beken ku   i=Tuk   Pelanuk
   STAT-uproar then NARR group animal other CAUSE [NAME=Mr. Mouse-deer

   ng-ecuk ni   Buayeh   kuman ni   Sapi'.
   AV-order NAME.OBL Crocodile eat.AV NAME.OBL Cow]
   'All the other animals then went into an uproar because Mouse-deer had told Crocodile
   to eat Cow.'

   b. Ku *as a subordinating conjunction (Langub 2014a:158)*

   "Iko   na ne-si-bada'   negkuh,   ku   iko   dai' bang ebpa'..."
   2SG.PVT NEG PFV-REFL-show 1SG.OBL, CAUSE 2SG.PVT there in   water
   ' "You didn't show yourself to me, because you're there in the water...'

   c. *Kereb as a subordinating conjunction (FN1:109)*

   Uih   pengeh ne-m-(p)upu' kén   kereb iko   m-ecing   nebpa.
   1SG.PVT finish PFV-AV-wash   cloth when 2SG.PVT INTRANS-arrive tomorrow
   'I will have already washed the clothes when you arrive tomorrow.'

---

[9]Malay *asal* or even *kalau* are also not uncommonly used for 'if' in place of *kudeng*.

The conjunctions *pelé* 'in order to, so that' and *pad* 'until, so that,' while not wholly synonymous, have significant semantic overlap and are therefore interchangeable in many cases. For negative purpose, *na'* 'lest' is used. (110a–d) illustrate:[10]

(110) a. *Purpose clause with* pelé *(Langub 2014a:169)*

    "It-en=kuh   kudih   iko,   pelé   [miek teh ieh   kuman
    bring-PV=1SG.GEN therefore 2SG.PVT, in.order.that can   yet 3SG.PVT eat.AV

      até=muh]."
      liver=2SG.GEN
    ' "I'm taking you so that she can eat your liver." '

  b. *Purpose clause with* pelé *(Langub 2014a:172)*

    "Neh ké'   tenganga' uih   rayeh-rayeh, pelé   saget neh iko
    then   EMPH wide.open 1SG.PVT large-large,   in.order.that [quick then 2SG.PVT

      m-até.
      INTRANS-die]
    ' "Then I'll open [my mouth] very wide, so that you'll die quickly." '

  c. *Purpose clause with* pad *(UCAPAN Y.B. BARU BIAN:05:59)*

    Tau   ng-alap dalan nge-picet   n-(t)ecu   bala Lun Bawang pad
    1PL.INCL AV-take path   AV-encourage AV-continue word Lun Bawang so.that
    ineh   miek bedé-n   kuan anak tau   idi kuan pupuh tau.
    that.DIST POSB teach-PV for   child 1PL.INCL and for   tribe   1PL.INCL
    'We take the path of encouraging the continuation of the Lun Bawang language so that it may be taught to our children and our people.'

  d. *Negative purpose clause with* na' *Ganang* et al. *(2008:*betien)

    Do'-do'   rot=muh   leh, na' beti-en=deh   kukud=muh napeh.
    REDUP-good' play=2SG.GEN VOC lest kick-PV=3PL.GEN leg=2SG.GEN later
    'Play carefully, lest they kick you.'

A counterfactual sentence—that is, one containing an antecedent condition that in some way contradicts reality— may be formed according to these same syntactic rules. The antecedent condition very strongly prefers, though does not strictly require, being marked for the perfective aspect.

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[10]The full video source for (110c), entitled "UCAPAN Y.B [sic] BARU BIAN DI BA KELALAN (1 JUN 2014) - VERSI LUN BAWANG," may be viewed at https://www.youtube.com/watch?v=bHFaUma8mIE. The example sentence taken from it has been slightly edited down for ease of presentation, but not in such a way as to alter the meaning of what was said or the syntactic structures under discussion.

(111)   a.   *Counterfactual (FN1:117)*

    Kudeng kayuh ineh n-até,   tebeng-en=kuh   ieh.
    if   tree   that PFV-die, fell-PV=1SG.GEN 3SG.PVT
    'If that tree were dead, I would cut it down.'

   b.   *Counterfactual (Langub 2014a:167)*

    Kudeng uih   ne-n-(d)alan, kudeng apeh, idé tun-in=muh?
    if   1SG.PVT PFV-AV-walk, as   what, who ask-PV=2SG.GEN
    ' "If I had left, what then, whom would you ask?" '

9.6. RELATIVIZATION

Relative clauses are formed by interposing the relativizer *luk* between the head noun and a following clause. As with so many other multiclausal structures, relative clauses adhere to the pivot-only constraint: the pivot, and only the pivot, of the relative clause may be targeted for relativization. If this argument is the relative clause's agent, patient, or instrument, the constraint may be satisfied simply by selecting the corresponding voice for the relative clause's verb. If the argument in question is neither agent, patient, nor instrument, a periphrastic construction, usually involving auxiliary *nan* 'on, at, to' or *inan* 'have' is required. The sentence pairs (112a–b) and (112c–d), illustrate this constraint; the first sentence in each has the head noun targeting the relative clause's pivot, but the second attempts to target another argument, resulting in ungrammaticality. The requirement is only that the relativized nominal target the pivot of the relative clause and not that it be the pivot of the matrix clause, as (112e) illustrates. (112f) exemplifies the use of periphrasis to target an argument that lacks a corresponding voice.[11]

(112)   (FN1:75), via (Mortensen 2018:5)

   a.   *Agent targeted in AV*

    *Lemulun luk [____PVT   ne-**m**-(b)eré apuh ineh negkuh] m-udeng dai'*
    man   REL [[GAP_PVT] PFV-**AV**-give broom that 1SG.OBL] STAT-stay there
     Lawas.
     Lawas
    'The man who gave me the broom lives in Lawas.'

---

[11]For ease of reading, voice morphology and pivot arguments are bolded.

b. *Agent cannot be targeted in PV*

*Lemulun luk [apuh   ineh b<i>ré   ____GEN   negkuh]   m-udeng   dai'
man   REL [**broom that <PFV.PV>**give [GAP~GEN~] 1SG.OBL] STAT-stay there
Lawas.
Lawas
*'The man who gave me the broom lives in Lawas.'

c. *Patient targeted in PV*

Lemulun luk   [____PVT   b<i>da'=neh   negkuh]   m-udeng   dai'
man   REL [[**GAP~PVT~**] **<PFV.PV>**show=3SG.GEN 1SG.OBL] STAT-stay there
Lawas.
Lawas
'The man whom he showed to me lives in Lawas.'

d. *Patient cannot be targeted in AV*

Lemulun luk   [ieh   ne-m**-(b)ada' ____OBL   negkuh]   m-udeng   dai'*
man   REL [**3SG.PVT** PFV-**AV**-show [GAP~OBL~] 1SG.OBL] STAT-stay there
Lawas.
Lawas
*'The man whom he showed me lives in Lawas.'

e. *Relativized nominal need not be pivot in matrix clause*

Ieh   ne-m-(b)ada' lemulun luk   [____PVT   m-udeng   dai' Lawas] ineh
3SG.PVT PFV-AV-show man   REL [[GAP~PVT~] STAT-stay there Lawas] that
negkuh.
1SG.OBL
'He showed me that man who lives in Lawas.'

f. *Periphrasis to target argument without its own voice (Ganang et al. 2008:*kedianan*)*

Me-sad   tu   pana'   iko   ng-alap tana' luk [____PVT   nan=muh
STAT-insist true however 2SG.PVT AV-take land REL [[GAP~PVT~] AUX=2SG.GEN
n-(t)ibu bua'] ineh   em...
AV-plant fruit] that.DIST CONJ...
'Insist as you may on taking that land where you planted the fruit [trees]...'

Relativization may of course be used in conjunction with other types of argument sharing construc-
tions such as those triggered by certain verbs (§9.2). As (113a–b) illustrate, the same pivot-only
constraint determines the voice of both clauses:

(113) a. *Relativization from PV targeting pivot of AV (FN2:44)*

Inih menipeh luk [____**PVT**   s\<in>ier=kuh   [____**PVT**   kuman lawid]].
this snake   REL [[**GAP**_{PVT}] \<PFV.PV>see=1SG.GEN [[**GAP**_{PVT}] eat.AV fish]]
'This is the snake that I saw eat a fish.'

b. *Relativization from PV targeting pivot of PV (FN2:44)*

Inih lawid luk [_____**PVT** s\<in>ier=kuh   [____**PVT**   kinan
this fish   REL [[**GAP**_{PVT}]   \<PFV.PV>see=1SG.GEN [[**GAP**_{PVT}] eat.PFV.PV

menipeh]].
snake]]
'This is the fish that I saw the snake eat.'

Although rather infrequent, a variant form of the relativizer, *seluk*, may be found instead of plain

luk. The leading *se-* appears to be the reduced form of the numeral 'one' (cf. §4.7). In the few

examples of its usage available, it is used only when the head noun of the relative clause is a

singular, specific, identifiable individual; this use might therefore loosely correspond to the use of

the specific series of demonstratives (cf. §4.3.3). Three instances of its use are shown in (114):

(114) a. *Relative clause with* seluk *(Ganang et al. 2008:*nepapan*)*

M-(p)apan uko' se-luk   [____**PVT**   m-item] dih   uih   sen   em
AV-feed   dog one-REL [[**GAP**_{PVT}] STAT-black] that.REM 1SG.PVT EMPH CONJ

ne-papan=kuh   neh se-luk   [____**PVT**] me-buda'] dih.
PFV-feed=1SG.GEN then one-REL [[**GAP**_{PVT}] STAT-white] that.REM
'I was supposed to feed the black puppy, but I fed the white one by mistake.'

b. *Relative clause with* seluk *(Ganang et al. 2008:*kekemen*)*

Kekem-en tau   eco sinih   lai se-luk   [____**PVT**   ne-**m**-(p)eno usin
arrest-PV 1PL.INCL day this.one man one-REL [[**GAP**_{PVT}] PFV-**AV**-steal money

inalem]   dih.
yesterday] that.REM
'Today we will catch the man who stole the money yesterday.'

c. *Relative clause with* seluk *(Ganang et al. 2008:*pesuk-pesuk*)*

Na lai se-luk   [____**PVT**   nan emé' papu'] dih   idih.
NEG man one-REL [[**GAP**_{PVT}] AUX go   meet] that.REM present
'The man whom [I] had gone to meet was not in.'

9.7. CLAUSAL COORDINATION

Today, thanks to contact, sentences may be coordinated with a sizable selection of borrowed and phonologically adapted Malay conjunctions such as *dan* 'and,' *tapi'* 'but,' *atau* 'or,' or *jadi'* 'so,' as well as native forms such as *idi* 'and' and *iemo'* 'but.' All of these follow the basic pattern seen in (115):

(115) a. *Modern clausal coordination (Ganang et al. 2008:*siberu'*)*

        Si-beru'   iko   atun   idi tau   ng-irup.
        REFL-wash 2SG.PVT before and 1PL.INCL AV-drink
        'Wash yourself first, and then we'll drink.'

    b. *Modern clausal coordination (FN1:124)*

        Kerubau ineh   pian nge-lipo ar,   iemo' na   neke-tau'=neh.
        buffalo   that.DIST want AV-jump fence but   NEG PFV-do=3SG.GEN
        'That buffalo tried to jump the fence, but it was unable to.'

In traditional speech less influenced by such contact, however, even those native forms, with the exception of *na'* 'lest', are rarely found. The most important clause-combining item is the multipurpose conjunctive final particle *em*—notably, *without* the presence of a subordinating second-position *peh*.[12] The specific sense and most appropriate translation of the conjunction are determined contextually. A large assortment of examples illustrating the flexibility of this clausal coordination strategy follows.

(116) a. *Traditional clausal coordination (Ganang et al. 2008:*miteb*)*

        Iko   isut ret arang muyuh wa' ng-anak em iko   teh luk
        2SG.PVT small from among 2PL   group LIG-child CONJ 2SG.PVT yet REL
          ruen   m-(p)iteb.
          do.PV AV-obey
        'You are the youngest among all you children, and yet it's you who is obeyed.'

---

[12]Note that the *peh* in (116b) is the aspectual clause-final *peh* and not the second-position subordinator *peh*. Cf. §4.12 for the difference.

b. *Traditional clausal coordination (Ganang et al. 2008:*rinuked*)*

R<in>uked=kuh   lak inih peh   em,   na   teh pudut ruma' kinih
<PFV.PV>end=1SG.GEN year this already CONJ NEG yet build house this.1SG

  pengeh.
  finish
'This year is over, but the building of my house is not complete.'

c. *Traditional clausal coordination (Ganang et al. 2008:*tunud*)*

Bura' peh tunud=muh   t<em>urun   leh? Ne-t<em>urun
why.so   often=2SG.GEN <INTRANSdescend VOC PFV-<INTRANS>descend

  iko   *inalem em t<em>urun*   *teh iko*   *eco sinih.*
  2SG.PVT yesterday CONJ <INTRANS>descend yet 2SG.PVT day this.one
'Why do you come down so often? You came down yesterday, and you also came down today.'

d. *Traditional clausal coordination (Ganang et al. 2008:*tebarin*)*

Tebu-in=muh   lati' kidih   em tebar-in=kuh   iko.
clear-PV=2SG.GEN farm 1SG.REM CONJ pay-PV=1SG.GEN 2SG.PVT
'You clear my farmland, and I'll pay you.'

e. *Traditional clausal coordination (Ganang et al. 2008:*netutem*)*

B<in>ayung=kuh   lawa kayuh dih   ku busu kidih   em
<PFV.PV>spear=1SG.GEN trunk tree   that.REM INST spear 1SG.REM CONJ

  ne-t<u>tem   *iedih*   *neh ieh.*
  PFV-<INTRANS>stick there.REM then 3SG.PVT
'I threw my spear at the tree trunk, and it stuck there.'

f. *Traditional clausal coordination (Ganang et al. 2008:*neketeb*)*

Ng-(k)eteb tebpuh   dih   uih   sen em, ne-keteb=kuh   neh
AV-cut   sugarcane that.REM 1SG.PVT EMPH CONJ PFV-cut=1SG.GEN then

  wé   *dih.*
  rattan that.REM
'I was trying [or supposed] to cut the sugarcane, but I accidentally cut the rattan.'

g. *Traditional clausal coordination (Padan and Ganang 2018:388)*

Luun pegkung ruma' nineh   kedih   em, bang arur dai' beneh
upon mountain house 3SG.DIST QUOT.REM CONJ in   stream there below

  aken nan nineh   *emé' diu' em*   *ng-ereb ebpa' bang rua*
  jetty AUX 3SG.DIST go   bathe CONJ AV-draw water in   container

  pinge-lak=neh.
  IV-cook=3SG.GEN
'Her house was atop a mountain, and in a stream down below, there was a jetty where she would go to bathe and draw water in a bamboo container to cook with.'

Although less frequent, *idi* is used even in more traditional speech along with the second-position particles *teh* or *mo'* for specific meanings; in the case of the former, it is 'and then' or 'so that,' while in the case of the latter it is 'and (only) then.' Such sentences may be found with or without the generic conjunction *em*. Interestingly, quite unlike *em*, which always occurs in the final position of the first of two clauses, *idi* occurs in the initial position of the second clause, as demonstrated by the fact that it may be immediately followed by second-position particles. The following examples illustrate these specific uses:

(117)   a.   *Clausal coordination with* idi teh *(Ganang* et al. *2008:*lubpa*)*

   L<u>bpa   iko   atun   idi teh iko   miek diu' bang kulem
   <INTRANS>naked 2SG.PVT before and yet 2SG.PVT POSB bathe in   pool
     ineh.
     that.DIST
   'Take off your clothes first, and then [or 'so that'] you can use the swimming pool.'

   b.   *Clausal coordination with* idi teh *(Ganang* et al. *2008:*tukag*)*

   T<u>kag   iko   idi teh keli'=muh   uih.
   <INTRANS>raise.head 2SG.PVT and yet know=2SG.GEN 1SG.PVT
   'Lift your face and then [or 'so that'] you will see me.'

   c.   *Clausal coordination with* idi mo' *(Ganang* et al. *2008:*kinayep*)*

   K<in>ayep=kuh   ideh   em   idi mo' ideh   m-iti
   <PFV.PV>wave.hand=1SG.GEN 3PL.PVT CONJ and only *3pl.pvt* STAT-recognize
     negkuh.
     1SG.OBL
   'I waved at them, and only then were they able to recognize me.'

   d.   *Clausal coordination with* idi mo' *(Ganang* et al. *2008:*kiniab*)*

   K<in>iab=kuh   kibung dih   em   idi mo' dawa' pirit   ne-buro.
   <PFV.PV>flap=1SG.GEN cloth   that.REM CONJ and only group sparrow PFV-flee
   'I flapped the cloth, and only then did all the sparrows fly away.'

CHAPTER 10: MISCELLANEOUS PHENOMENA

10.1. COMPARISONS

10.1.1 COMPARATIVES

Comparisons in Lun Bawang are made primarily by juxtaposition of the entity compared with the object of comparison, the latter of which is marked with the compound preposition *retnan* 'than' (from *ret* 'from' and *nan* 'upon,' probably modeled after Malay *daripada*), or, less often, a plain *ret*. A pronoun or human noun following either of these prepositions receives oblique marking. The most common order is the predicate first, then the subject, and lastly the prepositional phrase containing the object of comparison. Four examples, the last of which illustrates questioning the degree of the predicate, are shown in (118a–d):

(118) a. *Comparative (FN1:100)*

      Batek=kuh   isut   retnan batek   Lun Bawang.
      stomach=1SG.GEN small than   stomach Lun Bawang
      'My stomach is smaller than that of a Lun Bawang.'

  b. *Comparative (FN1:100)*

      Isut   tu-tu   i=Eva   ret   ni=Ethan.
      small REDUP-true NAME=Eva from NAME.OBL=Ethan
      'Eva is much smaller than Ethan.'

  c. *Comparative (Ganang* et al. *2008:*mekara*)*

      Me-kara   lawid luk <i>lap   kai   dih   retnan ineh.
      STAT-bulky fish   REL <PFV.PV>take 1PL.EXCL that.REM than   that.DIST
      'The fish that we caught are bigger than that.'

  d. *Comparative (Langub 2014a:162)*

      "Enun lek   ki-rayeh   i=ama'   inih ret   negkuh   lek?"
      what   maybe QUANT-large NAME=father this from 1SG.OBL maybe
       ki=Tuk   Pelanuk.
       NAME.QUOT=Mr. Mouse-deer
      'How much larger could Father have been than I?" said Mouse-deer.

In comparisons of the suitability of multiple courses of action, *do'* 'good' is often used followed by the second-position particle *teh* 'yet,' which may be rendered, equally appropriately, either 'better to' or 'should,' as in the two following examples. Because of the semantic overlap, this construction appears again in the discussion of modal necessity in §10.2.

(119)   a.   *Comparative (FN1:100)*

    Retnan iko   m-(p)ili'   emé' Long Semadoh, do' teh iko   emé' Long
    than   2SG.PVT AV-choose go   Long Semadoh, good yet 2SG.PVT go   Long
      Bawan.
      Bawan
    'Rather than choosing to go to Long Semadoh, it's better that you go to Long Bawan.'
    OR '. . . you should go to Long Bawan.'

    b.   *Comparative (Langub 2014a:127)*

    "Retnan m-ulun   na   anak, do' teh peri-paté, kegkuh   ni   Babu
    than   INTRANS NEG child good yet REFL-kill 1SG.QUOT NAME.OBL Babu
      Beteri' inih," ki=Raja   Pulau Bunga.
      Beteri' this   NAME.QUOT=King Pulau Bunga
    ' "I said to Babu Beteri' that rather than live childless, it's better that we [OR 'we should'] kill ourselves," said the King of Pulau Bunga.'

10.1.2 SUPERLATIVES

Superlatives are expressed simply by using the root *abud* 'end' before the quality to be compared. Two examples are given in (120a–b); a third may be found at (80b) in the discussion of clefting in §8.4 above.

(120)   a.   *Superlative (FN1:100)*

    Batek=kuh   luk abud isut.
    stomach=1SG.GEN REL end   small
    'My stomach is the smallest.'

    b.   *Superlative (Baru Bian's opening address for* Irau Aco Lun Bawang, *31 May 2019)*

    Beré luk abud do' luk miek beré-n tau   kuan   anak tau. . .
    gift REL end   good REL can give-PV 1PL.INCL possess child 1PL.INCL
    'The best gift that we can give to our children. . .'

While not possessing an extensive system of modals, Lun Bawang does have the tools to differentiate between various sorts of modality. The primary distinction encoded in the language is between possibility and necessity, with context normally serving to specify the type of modality involved. For the sake of clarity in the illustrations of modality in this section, ample context is provided before most of the example sentences, where appropriate.[1]

10.2.1 POSSIBILITY

Any type of possibility, be it deontic, epistemic, circumstantial, or otherwise, may be expressed with the modal *miek* 'can, may.' The first of these, deontic possibility, may be loosely defined as the moral permissibility of an act and is illustrated in the following examples:

> Context for (121): Upai's parents have never allowed him to ride a motorbike before, but now that they think he's old enough, they've decided that...

(121)   *Deontic possibility (FN2:23)*

> ...*ieh   miek   m-(b)aya' moto.*
> 3SG.PVT POSB AV-follow motorbike
> '...he may ride a motorbike.'

> Context for (122): Labo's teacher told the class it was okay to swim, but Labo doesn't know how. The teacher said...

(122)   *Deontic possibility (FN2:24)*

> ...*ideh   miek   l<em>anguy.*
> 3PL.PVT POSB <INTRANS>swim
> '...they may swim.'

The deontic meaning of (123) is clear enough so as to require no further context:

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[1]Some of the stimuli used to elicit modality were loosely based on those developed by Jozina Vander Klok (n.d.) of the Max Planck Institute, the original of which is viewable at

https://www.eva.mpg.de/lingua/tools-at-lingboard/pdf/Modal_Questionnaire_CrossLing_JVK.pdf.

(123)   Deontic possibility (Langub 2014a:131)

"Miek   uih   me-rot   dengan me-ng-anak?" ki=Awang   Muda
POSB   1SG.GEN INTRANS-play with   2-LIG-child   NAME.QUOT=Awang Muda

  anak Raja Pulau Bunga.
  child King Pulau Bunga

' "Can I play with you two [who are brothers]?" said Awang Muda, the son of the King of Pulau Bunga.'

Epistemic possibility, expressing that a state of affairs occurs in at least one out of all the sets of circumstances consistent with one's knowledge of the world, uses the same modal *miek*:

Context for (124): Upai's parents said he can't go visit his friend in Kuala Lumpur because it's too far. You heard he's leaving Long Semadoh next week, but don't know where he's going. You know he's daring and often does things he's not allowed. You think...

(124)   *Epistemic possibility (FN2:23)*

...i=Upai   miek emé' dai' KL.
NAME=Upai POSB go   there KL

'...Upai might be going to KL.'

Circumstantial possibility, too, may use the same modal:

Context for (125): You go to visit Hawai'i and notice that many plants are similar to those on Borneo. The temperature is the same, the rainfall is the same, the rocks and soil are the same. But you don't see any bamboo stalks.[2] But because the climate is the same, you think, even if there isn't any, that...

(125)   *Circumstantial possibility (FN2:24)*

...bulu' miek m-ulun   tungé'.
bamboo POSB STAT-live here

'...bamboo can grow here.'

Context for (126): Even though the law only allows 13 people in a truck, drivers often take more, because there's room for 20. Even though it's illegal...

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[2]This example was fictitious, used for the sake of elicitation. Hawai'i has no shortage of bamboo.

(126)   *Circumstantial possibility (FN2:24)*

> *. . . truck miek s<em>uet   20 burur.*
> truck   POSB <INTRANS>enter 20 body
> '. . . a truck can fit 20 people.'

However, for circumstantial possibility, *miek*, while permissible, is not, traditionally, the most common device to indicate that modality. Rather more frequent is the use of stative verbs in *me-* (cf. §4.4.1.9) to express ability or disposition, as in the following example:

(127)   *Circumstantial possibility via a stative (Ganang* et al. *2008:*mabud*)*

> *M-abud=muh   luba' luk tudu' nge-tanga ineh   napeh keh Lakui?*
> STAT-finish=2SG.GEN rice   REL seven LIG-wrap that.DIST later   Q   Lakui
> 'Will you be able to finish all seven dumplings, Lakui?'

The other common option for circumstantial possibility is to use *mileh*. This is in origin a stative verb meaning 'clever' and was probably originally used specifically to refer to a subject's knowing how to perform an action. However, as (128) makes clear, its use has broadened to general ability; one may reasonably suppose that it is on a path to grammaticalization as a modal verb, but that process is incomplete, as, unlike *miek* or other abilitative statives, its use is apparently limited to human, or at least anthropomorphized, subjects.

(128)   Mileh *as circumstantial possibility (Langub 2014a:159)*

> *"Ruen=kuh   peh eceh laga, m-ileh   neh iko   tudo luun dih,*
> do.PV=1SG.GEN SUB one   stool STAT-clever then 2SG.PVT sit   upon that.REM
>
> *ku   me-kadang iur dih?"   ki=Tuk   Pelanuk.*
> CAUSE STAT-long   tail that.REM NAME.QUOT=Mr. Mouse-deer
> ' "If I make a stool, will you be able to sit on it, since your tail is long?" said Mouse-deer.'

That *mileh* has undergone semantic bleaching sufficient to be used for circumstantial possibility rather than for knowledge alone is evident from the fact that in (128), Mouse-deer cites Crocodile's tail—a possible *physical* impediment—as the reason for questioning whether he could sit on a stool. At this point in the story from which the line is taken, the two have only just met, and

Mouse-deer believes, mistakenly, that Crocodile's overtures to him are sincere; although Mouse-deer will indeed go on to repeatedly insult Crocodile's (admittedly low) intelligence after the latter shatters the pretense of friendship by trying to eat him, the hostilities have not yet commenced. Both the immediate and broader context thus make clear that *mileh* here is used not in its strict sense of knowledge, but in a looser manner to denote ability.

10.2.2 NECESSITY

In contrast with possibility, the expression of modal necessity in Lun Bawang is more varied. To begin with, epistemic necessity, a state of affairs that, although not observed directly, is true in every conceivable set of circumstances consistent with the state of the speaker's knowledge, does not seem to employ any overt modal at all. Instead, context supplies the modal nature of the statement, as in the following:

> Context for (129): You know that Upai goes to the paddy field every morning at 6:00 even when he doesn't have to. You wonder where he is and check the time. It's 6:30, so. . .

(129) *Epistemic necessity (FN2:22)*

. . . i=Upai   dai'   lati'.
NAME=Upai there farm
'Upai must be at his field.'

> Context for (130): As it rained, the waters of the Brunei River swelled. When the waters swelled, Brunei was flooded all over. The hut of palm fronds at the bathing place was gone, swept away by the water. The morning dew fell, the morning breeze blew, and the people of Brunei awoke. The King of Brunei awoke, looked out from the window, and saw that the river was very great. He was astounded at how large the river was. He saw that Dayang Beteri' and Buet's hut of palm fronds was no more (Langub 2014a:152).[3]

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[3] Author's translation of the Lun Bawang original.

(130)   *Epistemic necessity (Langub 2014a:152)*

   "Edui-edui, dai' i=Buet   dawa' nge-ruma' n-anud   peh,"   ki=Raja.
   REDUP-oh   there NAME=Buet group LIG-house PFV-drift already *name.quot*=King
   ' "Oh, dear, Buet and his whole household [must] have been swept away!" said the King.'

Like epistemic necessity, circumstantial necessity generally does not take an overt modal and allows context to supply the modality, as in (131a–b).

(131)   a.   *Circumstantial necessity (FN2:22)*

      Me-pia'   uih.
      INTRANS-sneeze 1SG.PVT
      'I have to sneeze.'

   b.   *Circumstantial necessity (Langub 2014b:156)*

      "Ian peh idih   Ilan em, m-irat   bebpa'=kuh"   keneh.
      want SUB that.*rem* Ilan CONJ INTRANS-pass urine=1SG.GEN 3SG.QUOT
      ' "Excuse me, Ilan, I have to pee," she [Labau] said.'

For deontic and teleological necessity, on the other hand, overt modals are used. For both types, the Malay *mesti'* 'must' is commonly heard, existing alongside and largely replacing the native *na miek na* 'must' (lit. 'cannot not'). These modals apparently do not distinguish strong ("must") necessity from weak ("should") necessity. The following illustrate deontic necessity, which may be conceived as a moral imperative, so to speak.

   Context for (132): Padan just started learning to drive a motorbike. His friend says. . .

(132)   *Weak deontic necessity (FN2:22)*

   . . . mesti' iko   n-(d)alan ulai-ulai.
   NEC   2SG.PVT AV-walk   REDUP-slow
   '. . . you should drive slowly.'

   Context for (133): You are going to visit your friend in the hospital. When you enter, you go to the information desk to ask where he is, but the woman there says you can't visit because it's already 8:00. She says, "I'm sorry, but the hospital rules say that. . . "

(133) *Strong deontic necessity (FN2:22)*

> ...*iko   mesti' emé' kereb na   teh pukul enem.*
> 2SG.PVT NEC   go   time NEG yet hour six
> '...you must leave by six o'clock.'

Context for (134): When Ukab went to the airport, he wasn't allowed to board the plane because he didn't have a ticket. The gate attendant told him that...

(134) *Strong deontic necessity (FN2:22)*

> ...*lun luk m-(b)aya' kapal mesti' inan tiket.*
> person REL AV-follow plane NEC   have ticket
> '...passengers must have a ticket.'

Teleological necessity, the need to perform a particular action in order to attain a particular goal, is similar:

Context for (135): There is more than one way to get to Ba' Kelalan from Lawas. You can drive or fly. Sakai thinks flying is better because it's faster. So, according to Sakai...

(135) *Weak teleological necessity (FN2:23)*

> ...*iko   mesti' m-(b)aya' kapal.*
> 2SG.PVT NEC   AV-follow plane
> '...you should fly.'

Context for (136): There is only one road from Long Semadoh to Ba' Kelalan. If you go from Long Semadoh to Ba' Kelalan...

(136) *Strong teleological necessity (FN2:23)*

> ...*mesti' iko   m-(b)aya' dalan inih.*
> NEC   2SG.PVT AV-follow road this
> '...you must follow this road.'

Context for (137): The main road from Long Semadoh Rayeh to Long Telingan is impassable right now. If you want to go from Long Semadoh Rayeh to Long Telingan...

(137) *Strong teleological necessity (FN2:23)*

...na miek na iko n-(d)alan kukud.
NEG POSB NEG 2SG.PVT AV-walk foot
'...you must walk on foot.'

Another device for indicating necessity is the phrase *do' teh*, that is, 'good' followed by the second-position particle *teh* 'yet.' It functions as a form of weak necessity which, like *mesti'* and *na miek na*, can be either deontic or teleological as the context requires.[4] Two examples of contextless weak necessity open to multiple modal interpretations, with some creative thinking, are given in (138):

(138) a. *Weak necessity of ambiguous modality(Ganang et al. 2008:nekisu')*

Do' teh medueh p-aweh kereb terawé mineh na ne-kisu'.
good yet 2DU RECIP-marry time thought 2.DIST NEG PFV-change
'You'd better get married now before your mind has changed.'

b. *Weak necessity of ambiguous modality (Ganang et al. 2008:nganam)*

Na peh me-tau'=muh ng-anam bera luk <in>utat ineh
NEG SUB STAT-do=2SG.GEN AV-retrieve rice REL <PFV.PV>spill that.DIST

em, do' teh iko buro.
CONJ good yet 2SG.PVT flee
'If you can't retrieve the spilled rice, you should leave.'

Example (139), even with more context, avails itself of two interpretations: deontic (as coming from a parent, and a monarch, no less, who therefore has the right to command) and teleological, though the context does somewhat favor the latter:

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[4]Without digressing excessively, a note is here opportune: although deontic and teleological necessity are conceptually distinct, they overlap in their content to a non-negligible degree. Perhaps this overlap can be explained by the fact that moral imperatives may be viewed as both categorical ("I must do X because it is legitimately commanded of me.") and hypothetical ("I must do X if I wish to be perfect" or "I must do X if I wish to fulfill my duties according to my state in life"), the latter of which is teleological in character.

Context for (139): Awang Muda, the son of the King of Pulau Bunga, tells his father about two brothers he met and went to play with. The King, on hearing of suspicious behavior on the part of the brothers, gives his son the advice in (139a). Awang Muda questions the advice, and in response his father tells him that he believes the two brothers may be trying to kill him. He then gives the advice in (139b).

(139) a. *Weak necessity (Langub 2014a:132)*

      "Uu, kudeng idih   peh di-ng-anak dih   em, do' teh iko   na
      oh   like   that.REM SUB 3-LIG-child that.REM CONJ good yet 2SG.PVT NEG

      emé' me-rot   dengan di-ng-anak," ki=Raja.
      go   INTRANS-play with   3-LIG-child NAME.QUOT=King
      ' "Oh, if the brothers are like that, you shouldn't go play with them," said the King.

    b. *Weak necessity (Langub 2014a:132–3)*

      "Do' teh iko   ng-até ne-di-ng-anak   atun," ki=Raja.
      good yet 2SG.PVT AV-kill OBL-3-LIG-child before NAME.QUOT=King
      ' "You should kill those two brothers first [i.e., before they can kill you]," said the King.

A final example, on the other hand, is more plainly teleological and needs no context, as it explains its own motivation:[5]

(140) *Weak teleological necessity in a comparative (Langub 2014a:127)*

    "Retnan m-ulun   na anak, do' teh peri-paté, kegkuh   ni=Babu
    than   INTRANS-live NEG child good yet REFL-kill 1SG.QUOT NAME.OBL=Babu

    Beteri' inih," ki=Raja   Pulau Bunga.
    Beteri' this   NAME.QUOT=King Pulau Bunga
    ' "I said to Babu Beteri' that rather than live childless, we should kill ourselves," said the King of Pulau Bunga.'

The relevant portion could just as well be translated "It is better that we kill ourselves rather than live childless," as the structure of (140) bears a striking similarity to that of comparative constructions, for more on which see §10.1.

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[5]The exceptionally observant reader may note, based on a previous example and the page numbers in the corresponding citations, that the King and his wife were unsuccessful in and then dissuaded from their intention.

10.3. NEGATIVE POLARITY

Lun Bawang does not have a full set of negative polarity items corresponding to wh-words such as 'anyone,' 'anything,' 'anywhere,' and so forth. These notions are usually expressed with a bare word such as *lun* 'person' or a headless relative clause, neither of which is polarity sensitive, as illustrated in (141a–d):

(141) a. *(FN2:27)*

    Na   uih   ne-keli' lun   dai' lati'.
    NEG 1SG.PVT PFV-find person there farm
    'I didn't find anyone at the farm.'

   b. *(FN2:27)*

    Inan lun   iné'   n-(t)akap negkuh?
    have person go.PFV AV-seek 1SG.OBL
    'Did anyone [or 'someone'] come looking for me?'

   c. *(FN2:29)*

    Na   luk   kinan=deh.
    NEG REL eat.PFV.PV=3PL.GEN
    'They didn't eat anything,' or 'They ate nothing.'

   d. *(Ganang et al. 2008:*kekem*)*

    Na   luk   kekem-en=kuh   eco sinih.
    NEG REL work-PV=1SG.GEN day this.SPEC
    'I don't have anything to do today,' or 'I have nothing to do today.'

As an alternative, *enun* 'what' may be made into a negative polarity item 'anything' via reduplication. This use is illustrated in (142a–b)

(142) a. *Reduplication as negative polarity (FN2:29)*

    Na   uih   ne-keli' enun-enun luun mija'.
    NEG 1SG.PVT PFV-find REDUP-what upon table
    'I didn't find anything on the table.'

b. *Reduplication as negative polarity (Ganang* et al. *2008:*ngedanak*)*

Na peh muyuh pian ku ideh t<em>ina' enun-enun em,
NEG SUB 2PL want COMP 3PL.PVT <INTRANS>prepare REDUP-what CONJ

  ruen muyuh nge-danak ideh.
  do.PV 2PL AV-sudden 3PL.PVT

'If you do not want them to prepare anything, you will need to take them by surprise.'

At least two other negative polarity items exist. One is *tupu* 'at all,' and the second is *pana'* 'even;'

the latter also has a number of other functions not associated with polarity, for which see, e.g.,

§§9.5.3, 10.4. (143) exemplifies the use of these items:

(143)   a.   Pana' *as a negative polarity item (Ganang* et al. *2008:*sebuleng*)*

      Sebuleng pana' na teh.
      one   even NEG yet
      'None at all' (lit. 'not even one').

  b.   Pana' *as a negative polarity item (Langub 2014a:177)*

      N-(t)akap akan pana' na teh me-tau' nineh peh, ku susa',
      AV-seek food even NEG yet STAT-do 3SG.DISTAL already, CAUSE distress,

       ku leso niat neh.
       CAUSE sorrow spirit 3SG.GEN

      'He could not even manage to look for food because of his distress and sorrow.'

  c.   Tupu *as a negative polarity item (FN2:31)*

      Na tupu-tupu bua' kaber ne-keli=kuh.
      NEG REDUP-at.all fruit pineapple PFV-know=1SG.GEN
      'I didn't find any pineapples at all.'

  d.   Tupu *as a negative polarity item (Ganang* et al. *2008:*iput*)*

      <I>put=kuh reked dih em na tupu baka
      <PFV.PV>go.all.over=1SG.GEN flat.land that.REM CONJ NEG at.all wild.boar

       ne-papu'=kuh.
       PFV-meet=1SG.GEN

      'I walked all around the flat land, but I did not come across any wild boar at all.'

10.4. FREE CHOICE ITEMS

A free choice item (e.g., 'anyone/whoever,' 'anything/whatever') may be formed in one of

several ways. The most common is to use a wh-word followed by either *mo'* 'only' or *pana'* 'even.'

Reduplication of wh-words is also observed, usually but not obligatorily with the accompanying

mo' or *pana'*. Several examples of these are available, a representative sample of which is given here as (144a–d):[6]

(144) a. *Free-choice reduplicated wh-item (FN2:28)*

  Uih miek kuman enun-enun luk beré-(e)n=muh.
  1SG.PVT POSB eat.AV REDUP-what REL give-PV=2SG.GEN
  'I can eat anything/whatever you give me.'

b. *Free-choice wh-item with* mo' *(FN2:28)*

  Uih ng-(k)irim surat inih kuan idé mo'.
  1SG.PVT AV-send letter this possess who only
  'I will send this letter to anyone/whomever [I choose].'

c. *Free-choice wh-item with* mo' *(FN2:28)*

  Uih miek papu' nemuh su apeh mo' inan=muh.
  1SG.PVT POSB meet 2SG.PVT at which only have=2SG.GEN
  'I can meet you wherever you are.'

d. *Free-choice reduplicated wh-item with* pana' *(See note 6)*

  Iemo' nekinih peluang m-ukab kuan idé-idé pana' miek n-(t)ecu
  but now opportunity STAT-open for REDUP-who even POSB AV-continue
   sikula' tungé' Malaya luk inan kin-ula' 20 IPTA idi 27 Politiknik.
   school here Malaya REL have QUANT-many 20 IPTA and 27 Polytechnic
  'But now the opportunity is open for anyone to continue schooling here in Malaya,
  which has 20 public universities and 27 polytechnic schools.'

Pana' can also be used with predicates to create a free choice item with the sense of 'however much' or 'to whatever extent.' These are usually used in concessive subordinate clauses, the structure of which is discussed in finer detail in §9.5.1. One example is provided in (145) for reference.

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[6]Example (144d) is taken from a blog post by Balan Berauak found at https://longsemadoh.wordpress.com/2011/ 09/22/sikula-tu-tu-rayeh-muci-ame-kuh-tuan/. The abbreviation *IPTA* stands for Malay *Institut Pengajian Tinggi Awam* 'Public Institute of Higher Studies,' i.e., a public university.

(145) *Free-choice* pana' *(Langub 2014a:166)*

M-io   *tu*   *pana'* *lawé=muh*   *em...* *na* *teh* *uih*   *tudo-tudo*
STAT-long.time truly even   journey=2SG.GEN CONJ NEG yet 1SG.PVT REDUP-sit
  ng-inét *nemuh.*
  AV-wait 2SG.OBL
'However long your journey takes. . . I will still be sitting here waiting for you.'

In addition to free choice items built on wh-words or predicates, the specific remote demonstrative *sidih* 'that one' also has a secondary function as a free choice item. It may refer to either animate or inanimate persons or objects and may therefore be translated either 'whoever' or 'whatever.' Some examples of its use are shown in (146):

(146) a. *Free choice* sidih *(Langub 2014a:186, via FN3:46)*

   Ret *iedih* *peh* *sidih*   *em,* *emé'* *iedih* *neh* *ieh.*
   from there SUB whosoever CONJ go   there then 3SG.PVT
   'Let each of us return whence he came.'

   b. *Free choice* sidih *(Langub 2014a:160 via FN3:47)*

   Sidih   *peh* *muka* *m-ecing*   *ienih* *em,* *ieh*   *ng-inét.*
   whosoever SUB early INTRANS-arrive here   CONJ 3SG.PVT AV-wait
   'Whoever arrives here first will wait.'

   c. *Free choice* sidih *(Langub 2014a:158)*

   M-ata'   *peh* *sidih*   *em,* *ebpa-(e)n* *tala(')-(e)n=neh*   *neh* *ieh.*
   STAT-unripe TOP whatsoever CONJ drop-PV   throw-PV=3SG.GEN then 3SG.PVT
   'Whichsoever ones were unripe, he threw down.'

   d. *Free choice* sidih *(Ganang et al. 2008:akau-akau)*

   Sidih   *peh* *lap-en=muh*   *em*   *lap-en* *neh* *ieh*   *me-saget,*
   whatsoever SUB taken-PV=2SG.GEN CONJ take-PV then 3SG.PVT STAT-quick
   na   *akau-akau.*
   NEG REDUP-indecisive
   'Whichever one you take, just take it quickly, it doesn't matter which.'

   e. *Free choice* sidih *(Ganang et al. 2008:pawan)*

   N-até *dat* *peh* *awan* *lai* *sidih*   *em,* *emé'* *ku* *pawan* *emung-emung*
   PFV-die bad SUB spouse man whosoever CONJ go   as *pawan* REDUP-all
   binaweh   *luk* *bang* *ruma'* *nidih.*
   possession REL in   house 3SG.REM
   'If any man's wife dies a bad death [i.e., in childbirth], all the goods in his house become *pawan* [property that must be discarded].'

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10.5. Scope Phenomena

Scope interactions in Lun Bawang are quite varied, with different relations depending on the type of scope-taking elements involved. Because of this variation and the context-sensitivity of scope interpretation, the following subsections are best regarded not as a definitive exposition of Lun Bawang scope, but rather as a set of interesting observations inviting further study, in particular because many of them cannot be entirely explained by linear word order.

For the sake of exactness, these subsections make considerable use of logical notational symbols. The principal symbols used, which should be familiar to any reader with a grasp of basic set theory, are as follows:

- $\forall$ (read "for all"), the universal quantifier

- $\exists$ (read "there exists"), the existential quantifier

- $\Rightarrow$, material implication; "$P \Rightarrow Q$" may be read "P entails Q" or "if P, then Q"

- $\wedge$ (read "and"), logical conjunction

- $\vee$ (read "or"), logical disjunction

- $\neg$ (read "not"), logical negation

For example, the English sentence *Every zookeeper played a glockenspiel* is ambiguous and has two possible interpretations, one of which is represented with the following notation: $\forall x[\textbf{zookeeper}(x) \Rightarrow \exists y[\textbf{glockenspiel}(y) \wedge \textbf{played}(x,y)]]$. This notation should be read (approximately), "for all beings x, if x is a zookeeper, then there exists a being y such that y is a glockenspiel and x played y." The other interpretation is represented $\exists x[\textbf{glockenspiel}(x) \wedge \forall y[\textbf{zookeeper}(y) \Rightarrow \textbf{played}(y,x)]]$, which is read, "there exists a being x such that x is a glockenspiel and for every being y, if y is a zookeeper, y played x." In the former representation, where the universal quantifier takes scope over the existential (represented $\forall > \exists$), each zookeeper played a separate glockenspiel; this interpretation is called the *distributed* (or one-to-one) reading. In the latter, where the existential quantifier takes scope over the universal (represented $\exists > \forall$), the same, single glockenspiel

is played by all the zookeepers; this interpretation is called the *non-distributed* (or many-to-one) reading. Distinguishing between these and other similar consequences of scope ambiguity will be essential to understanding the following subsections.

10.5.1 QUANTIFIER-INDEFINITE INTERACTIONS

In a transitive clause where one of the arguments is associated with the universal quantifier and another is left indefinite and is thus trivially associated with the existential quantifier, logically, two possible readings exist. In one, the universal quantifier (UQ) takes scope over the existential (the distributed reading), and in the other, the existential quantifier (EQ) takes the wider scope (the non-distributed reading). Sentences of this type are often ambiguous and open to both of these readings, and voice alternations and linear word order do not affect the availability of the readings.

Each of the following examples is ambiguous:

(147)   *Scope ambiguity in AV*

   Emung anak ne-n-(s)ier   kerubau.
   all   child PFV-AV-see buffalo
   'Every child saw a buffalo.'

Possible readings of (147):

- Distributed (a different buffalo for each child): $\forall x[\textbf{child}(x) \Rightarrow \exists y[\textbf{buffalo}(y) \wedge \textbf{saw}(x,y)]]$

- Non-distributed (only one buffalo): $\exists y[\textbf{buffalo}(y) \wedge \forall x[\textbf{child}(x) \Rightarrow \textbf{saw}(x,y)]]$

(148)   *Scope ambiguity in PV*

   Kerubau s<in>ier   emung anak.
   buffalo   <PFV.PV>see all   child
   'Every child saw a buffalo.'

The readings available for (148) are the same as those for (147), despite the change in voice and word order. When the sentence is changed so that the UQ is associated with the patient, as in (149a–b), the available interpretations are somewhat changed, but they are nonetheless consistent across voices.

(149) a. *Scope ambiguity in AV*

    Anak ne-n-(s)ier   emung kerubau.
    child PFV-AV-see all   buffalo
    'A child saw every buffalo.'

    b. *Scope ambiguity in PV*

    Emung kerubau s<in>ier   anak.
    all   buffalo <PFV.PV>see child
    'A child saw every buffalo.'

Readings available for (149a–b):

- Distributed (a different child for each buffalo): $\forall y[\textbf{buffalo}(y) \Rightarrow \exists x[\textbf{child}(x) \wedge \textbf{saw}(x,y)]]$

- Non-distributed (one child): $\exists x[\textbf{child}(x) \wedge \forall y[\textbf{buffalo}(y) \Rightarrow \textbf{saw}(x,y)]]$

Unsurprisingly, the same ambiguity arises between agents and patients in triadic clauses: each sentence is ambiguous, and its two readings are unaffected by voice alternations and word order.

(150) a. *Scope ambiguity in triadic AV*

    Emung anak ne-m-(b)ada' lawid negkuh.
    all   child PFV-AV-show fish   1SG.OBL
    'Every child showed me a fish.'

    b. *Scope ambiguity in triadic PV*

    Lawid b<i>da'   emung anak negkuh.
    fish   <PFV.PV>show all   child 1SG.OBL
    'Every child showed me a fish.'

    c. *Scope ambiguity in triadic AV*

    Anak ne-m-(b)ada' emung lawid negkuh.
    child PFV-PV-show all   fish   1SG.OBL
    'A child showed me every fish.'

    d. *Scope ambiguity in triadic PV*

    Emung lawid b<i>da'   anak negkuh.
    all   fish   <PFV.PV>show child 1SG.OBL
    'A child showed me every fish.'

(150a–b), though in AV and PV, respectively, have the same two readings available:

- Distributed (one fish per child): $\forall x[\textbf{child}(x) \Rightarrow \exists y[\textbf{fish}(y) \wedge \textbf{showed}(x,y,\textbf{me})]]$

- Non-distributed (only one fish): $\exists y[\textbf{fish}(y) \wedge \forall x[\textbf{child}(x) \Rightarrow \textbf{showed}(x,y,\textbf{me})]]$

The same is true of (150c–d): although their logical representations are distinct from those of (150a–b), due to the change in the quantifier's association, each of the sentences is ambiguous with the same two readings available, in spite of voice alternation and word order variation:

- Distributed (one child per fish): $\forall y[\textbf{fish}(y) \Rightarrow \exists x[\textbf{child}(x) \wedge \textbf{showed}(x,y,\textbf{me})]]$

- Non-distributed (only one child): $\exists x[\textbf{child}(x) \wedge \forall y[\textbf{fish}(y) \Rightarrow \textbf{showed}(x,y,\textbf{me})]]$

Lastly, the scope interactions between patients and recipients are also ambiguous, and variation in the available readings is not affected by voice alternations or word order:

(151) a. *Scope ambiguity in AV*

   Uih   ne-m-(b)ada' lawid ne-dawa'   anak.
   1SG.PVT PFV-AV-show fish   OBL-group child
   'I showed every child a fish.'

   b. *Scope ambiguity in PV*

   Lawid b<i>da'   kuh   ne-dawa'   anak.
   fish   <PFV.PV>show 1SG.GEN OBL-group child
   'I showed every child a fish.'

   c. *Scope ambiguity in AV*

   Uih   ne-m-(b)ada' emung lawid ne-dawa'   anak.
   1SG.PVT PFV-AV-show all   fish   OBL-group child
   'I showed a child every fish.'

   d. *Scope ambiguity in PV*

   Emung lawid b<i>da'   kuh   ne-dawa'   anak.
   all   fish   <PFV.PV>show 1SG.GEN OBL-group child
   'I showed a child every fish.'

Readings available for both (151a–b):

- Distributed (one fish per child): $\forall y[\textbf{child}(y) \Rightarrow \exists x[\textbf{fish}(x) \wedge \textbf{showed}(\textbf{me},x,y)]]$

- Non-distributed (only one fish): $\exists x[\textbf{fish}(x) \wedge \forall y[\textbf{child}(y) \Rightarrow \textbf{showed}(\textbf{me},x,y)]]$

Readings available for both (151c–d):

- Distributed (one child per fish): $\forall x[\textbf{fish}(x) \Rightarrow \exists y[\textbf{child}(y) \land \textbf{showed}(\textbf{me},x,y)]]$

- Non-distributed (only one child): $\exists y[\textbf{child}(y) \land \forall x[\textbf{fish}(x) \Rightarrow \textbf{showed}(\textbf{me},x,y)]]$

The foregoing are sufficient to demonstrate that voice alternations have no effect whatsoever on the interpretation of the scope of the universal and existential quantifiers. Every example in (147) – (151) has two possible interpretations, one in which the universal quantifier takes scope over the existential, and one in which the existential takes scope over the universal, and these readings are not altered by change of voice.

As a final note, while in principle two interpretations of such constructions are always possible, considerations of context and plausibility very frequently bias the hearer toward one interpretation over the other. Such is the case in this line uttered in a public address:[7]

(152) *A naturally occurring scope ambiguity (UCAPAN Y.B BARU BIAN:02:04)*

Uih   ne-m-(p)utuh   [unintelligible] m-(b)eré budget kuan anid bangsa' bang
1SG.PVT PV-AV-request [unintelligible] AV-give budget for   each tribe   in
   Sarawak nge-tueh   bala tau
   Sarawak AV-strong word 1PL.INCL
'I have asked the [unintelligible] to give a budget to each tribe in Sarawak to strengthen our languages.'

While in principle (152) has two possible interpretations, the hearer will quickly conclude that the correct interpretation is the distributed reading, wherein the universal quantifier has wide scope; that is, the correct reading is the one in which each tribe has a separate budget. One need not even look at the broader linguistic context to ascertain this fact, understanding that allotting a single budget to all the different tribes spread across Sarawak to collectively work toward the strengthening of their separate languages is implausible. Importantly, however, the reason for

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[7]Full video source available at https://www.youtube.com/watch?v=bHFaUma8mIE. Unfortunately, due to the acoustics in the environment where the speech was delivered, a portion of the sentence is unintelligible. The syntactic structure and intended meaning, however, are still quite clear.

rejecting the non-distributed reading is *pragmatic*, not syntactic, and the marginal acceptability of such a reading does not in fact contradict the above claims that UQ-indefinite interactions are syntactically ambiguous.

10.5.2 QUANTIFIERS AND NEGATION

By contrast with the above, no ambiguity is present when the universal quantifier interacts with negation. Rather, scope uniformly follows word order. In consequence, more often than not, negation takes scope over the UQ, in any voice.

(153)   a.   *AV sentence:* $\neg > \forall$ *(FN1:156)*

       Na   uih   ne-n-(s)ier emung kerubau.
       NEG 1SG.PVT PFV-AV-see all   buffalo
       'I did not see all the buffalo.'

    b.   *PV sentence:* $\neg > \forall$ *(FN1:156)*

       Na   s<in>ier=kuh   emung kerubau.
       NEG <PFV.PV>see=1SG.GEN all   buffalo
       'I did not see all the buffalo.'

    c.   *AV sentence:* $\neg > \forall$ *(FN2:31)*

       Na   uih   ne-keli' emung bua' kaber.
       NEG 1SG.PVT PFV-find all   fruit pineapple
       'I did not find all the pineapples.'

    d.   *PV sentence:* $\neg > \forall$ *(FN2:31)*

       Na   ne-keli'=kuh   emung bua' kaber.
       NEG PFV-find=1SG.GEN all   fruit pineapple
       'I did not find all the pineapples.'

In each of (153a–d), only a reading in which negation takes scope over the quantifier is possible regardless of voice, whether the pivot is in clause-final position or in the preverbal position. Thus, the interpretations of (153a–d):

- (153a–b): $\neg(\forall x[\textbf{buffalo}(x) \Rightarrow \textbf{saw}(\textbf{me},x)])$

- (153c–d): $\neg(\forall x[\textbf{pineapple}(x) \Rightarrow \textbf{found}(\textbf{me},x)])$[8]

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[8]By application of De Morgan's laws, these may be rewritten in a logically equivalent manner that, though not

When, however, the universally quantified argument is dislocated to the left of negation and therefore necessarily selected as pivot (cf. §8.1), the scope reading reverses, with negation now falling within the scope of the quantifier.

(154)   a.   *Sentence (153b) with left-dislocated pivot: ∀ > ¬ (FN1:156)*

   Emung kerubau na   s<in>ier=kuh.
   all   buffalo   NEG <PFV.PV>see=1SG.GEN
   'I did not see all the buffalo.' (= 'I saw none of the buffalo.')

   b.   *Sentence (153d) with left-dislocated pivot: ∀ > ¬ (FN2:31)*

   Emung bua' kaber   na   ne-keli'=kuh.
   all   fruit pineapple NEG PFV-find=1SG.GEN
   'I did not find all the pineapples.' (= 'I found none of the pineapples.')

These two sentences therefore have the following interpretations:

- (154a): ∀x[**buffalo**(x) ⇒ ¬**see**(**me**,x)]

- (154b): ∀x[**pineapple**(x) ⇒ ¬**find**(**me**,x)]

Because only one interpretation is available for each of the examples given in this subsection, the conclusion follows that, in contrast to the highly ambiguous quantifier-indefinite interactions, quantifier-negation interactions rigidly follow word order.

10.5.3 QUANTIFIERS AND NUMERALS

Yet another pattern of scope interactions is to be found: When one argument in a transitive clause is universally quantified and the other is quantified by a numeral, then, regardless of voice, word order, or which quantifier is associated with which argument, the object falls within the scope of the subject.[9] Notably, this result parallels the results of the binding tests used to diagnose

closely following the syntax of the natural language, may be easier for a human reader to interpret:

(153a–b): ∃x[**buffalo**(x) ∧ ¬**saw**(**me**,x)]

(153c–d): ∃x[**pineaapple**(x) ∧ ¬**found**(**me**,x)]

[9]See §7.1 for definitions of *subject* and *object*.

symmetrical voice in §7.2 and may be taken as further evidence for symmetrical voice in Lun Bawang.

By way of example, in (155a–b), the subject is universally quantified and the object quantified by the numeral 'two.' In both cases, despite the differences in voice and word order, the universally quantified subject takes scope over the object:

(155) a. *AV: UQ subject > numeral object (FN2:32)*

        Anid-anid   guru'   ng-ukak dueh bua' kaber.
        REDUP-each teacher AV-peel two   fruit pineapple
        'Each teacher peeled two pineapples.'

    b. *PV: UQ subject > numeral object (FN2:32)*

        Dueh bua' kaber   <in>ukak   anid-anid   guru'.
        two   fruit pineapple <PFV.PV>peel REDUP-each teacher
        'Each teacher peeled two pineapples.'

The logical readings of the above are the same, represented as follows:

- $\forall x[\textbf{teacher}(x) \Rightarrow \textbf{two}(y)[\textbf{pineapple}(y) \Rightarrow \textbf{peel}(x,y)]]$

If the associations of the quantifiers are reversed, such that the object is universally quantified and the subject quantified by the numeral, then the readings, too, reverse, in keeping with the principle that UQ-numeral interactions give wide scope to the subject in any voice or word order. (156a–b) illustrate:

(156) a. *AV: Numeral subject > UQ object (FN2:32)*

        Dueh guru'   ne-ng-ukak   emung bua' kaber.
        two   teacher PFV-AV-peel all   fruit pineapple
        'Two teachers peeled every pineapple.'

    b. *PV: Numeral subject > UQ object (FN2:32)*

        Emung bua' kaber   <in>ukak   dueh guru'.
        all   fruit pineapple <PFV.PV>peel two   teacher
        'Two teachers peeled every pineapple.'

The logical readings of these, too, are the same, represented as follows:

- **two**(x)[**teacher**(x) $\Rightarrow$ $\forall$y[**pineapple**(y) $\Rightarrow$ **peel**(x,y)]]

Just as with (155a–b), the reading is such that the subject takes scope over the object in all cases involving interaction between a UQ and numeral, perfectly consistent with the other diagnostics of prominence investigated in §7.2.

10.5.4 NUMERALS AND NEGATION

Where numerals and negation are concerned, yet another pattern is followed: regardless of voice, word order, or which argument is quantified by the numeral, that numeral uniformly takes scope over negation. (157a–c) illustrate with a numerically quantified subject:[10]

(157)   a.   *AV: Numeral subject > ¬ (FN2:33)*

Na   dueh guru'   ne-ng-uit   bua' kaber.
NEG two   teacher PFV-AV-bring fruit pineapple
'Two teachers did not bring pineapples.'

   b.   *AV with left-dislocated pivot: Numeral subject > ¬ (FN2:33)*

Dueh guru'   na   ne-ng-uit   bua' kaber.
two   teacher NEG PFV-AV-bring fruit pineapple
'Two teachers did not bring pineapples.'

   c.   *PV: Numeral subject > ¬ (FN2:33)*

Na   bua' kaber   <in>uit   dueh guru'.
NEG fruit pineapple <PFV.PV>bring two   teacher
'Two teachers did not bring pineapples.'

In each of the above cases, the only reading possible is that in which, however many teachers the scenario may contain, two of them brought no pineapples. Logically, the reading is represented as follows:

- **two**(x)[**teacher**(x) $\Rightarrow$ $\forall$y[**pineapple**(y) $\Rightarrow$ ¬**brought**(x,y)]]

If the numeral quantifies the object instead, no change in scope relations occurs; the numeral retains its scope over negation, as illustrated in (158a–c)[11]:

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[10]The consultant who judged (157a) considered it acceptable but unnatural.

[11](158b) is the subject of conflicting judgments among speakers; if acceptable, it is probably unnatural.

(158) a. *AV: Numeral object > ¬ (FN2:33)*

 Na   uih   ne-ng-uit   dueh bua' kaber.
 NEG 1SG.PVT PFV-AV-bring two   fruit pineapple
 'I did not bring two pineapples.'

 b. *PV: Numeral object > ¬ (FN2:33)*

 Na   dueh bua' kaber   <in>uit=kuh.
 NEG two   fruit pineapple <PFV.PV>bring=1SG.GEN
 'I did not bring two pineapples.'

 c. *PV with left-dislocated pivot: Numeral object > ¬ (FN2:33)*

 Dueh bua' kaber   na   <in>uit=kuh.
 two   fruit pineapples NEG <PFV.PV>bring=1SG.GEN
 'I did not bring two pineapples.'

These three sentences, too, allow for only one reading, that in which, no matter the total number of pineapples that I have brought to the designated location, I have omitted exactly two. Logically represented, the reading is as follows:

- **two**(x)[**pineapple**(x) ∧ ¬**bring**(**me**,x)]

The conclusion follows from the above that a numeral, regardless of the argument it quantifies, the clause's word order, or the verbal voice, invariably takes scope over negation.

10.5.5 SCOPE OF QUOTATIVES

Quotative pronouns, too, have scope. In particular, they may fall either within or without the scope of a question, be it polar or WH. They may not, however, be negated.

On its face, a sentence containing the words *Ngudeh ieh keneh* is ambiguous, with two possible interpretations disambiguated in writing by punctuation and in speech by intonation. Both of the following interpretations, one in which the wh-item takes scope over the quotative and one in which the reverse is true, are acceptable:

(159) a. *Quotative > WH-word*

 "Ng-(k)udeh ieh?"   keneh.
 AV-do.what   3SG.PVT 3SG.QUOT
 ' "What's going on?" he said.'

b. *WH-word > Quotative*

   Ng-(k)udeh ieh   keneh?
   AV-do.what 3SG.PVT 3SG.QUOT
   'What did he say is happening?'

The same may hold for a sentence containing the words *Emé' yapeh uih kemuh*:

(160) a. *Quotative > WH-word (FN2:58)*

   "Emé' yapeh uih?"   kemuh.
   go   where 1SG.PVT 2SG.QUOT
   ' "Where do I go?" you said.'

   b. *WH-word > Quotative (FN2:58)*

   Emé' yapeh uih   kemuh?
   go   where 1SG.PVT 2SG.QUOT
   'Where did you say I'm going?'

Likewise, a quotative may both relate a polar question and fall within a polar question:

(161) a. *Quotative outside the scope of a polar question (FN2:58)*

   "M-ecing   nebpa?" keneh.
   INTRANS-arrive tomorrow 3SG.QUOT
   ' "Arriving tomorrow?" he said.

   b. *Quotative within the scope of a polar question (FN2:58)*

   M-ecing   nebpa   keneh?
   INTRANS-arrive tomorrow 3SG.QUOT
   'Did he say [he's] arriving tomorrow?'

In contrast, however, a quotative may fall only outside the scope of negation and may never be negated, hence only (162a) is grammatical. (162b) is unacceptable with the intended meaning, and (162c–d) are entirely ungramamatical.

(162) a. *Negation within the scope of a quotative (FN2:58)*

   "Na uih   k<i>tep   i   Buayeh," ki   Pelanuk.
   NEG 1SG.PVT <PFV.PV>bite NAME Crocodile NAME.QUOT Mouse-deer
   ' "I wasn't bitten by Crocodile," said Mouse-deer.

b. *Quotatives cannot be negated (FN2:58)*

   *Na "Uih   k\<i\>tep   i   Buayeh" ki   Pelanuk.
   NEG 1SG.PVT \<PFV.PV\>bite NAME Crocodile NAME.QUOT Mouse-deer
   For *'Mouse-deer didn't say, "I was bitten by Crocodile." '

c. *Quotatives cannot be negated (FN2:58)*

   *"Uih   k\<i\>tep   i   Buayeh," na   ki   Pelanuk.
   1SG.PVT \<PFV.PV\>bite NAME Crocodile NEG QUOT Mouse-deer
   For *'Mouse-deer didn't say, "I was bitten by Crocodile." '

d. *Quotatives cannot be negated (FN2:58)*

   *Na ki   Pelanuk,   "Uih   k\<i\>tep   i   Buayeh."
   NEG NAME.QUOT Mouse-deer 1SG.PVT \<PFV.PV\>bite NAME Crocodile
   For *'Mouse-deer didn't say, "I was bitten by Crocodile." '

The conclusion follows, then, that, while quotatives may, but need not, fall within the scope of questions, they otherwise take wide scope and cannot, for example, be negated.

Part III

Historical and Areal Relationships

CHAPTER 11: LUN BAWANG IN ITS GENETIC AND AREAL CONTEXT

11.1. INTRODUCTION

The linguistic affiliation of Lun Bawang is quite clear: it is a member of the Dayic[1] language group, commonly regarded as one of four primary branches of the North Sarawak subset of the North Borneo languages (see, e.g. Blust 2010). The internal structure of Dayic, however, and hence the place of Lun Bawang therein, is far murkier. The group contains a wide variety of languages and dialects, but so far few reliable criteria for subgrouping have been identified, and the shreds of evidence that can be found are often at odds with one another. This chapter presents the relevant geographic and linguistic evidence to attempt to determine what can be said, and with what degree of certainty, about the internal structure of the Dayic languages and the place of Lun Bawang therein. In the course of the investigation, fraught with difficulties due to confounding areal influence, one fact continually comes to the fore: Lun Bawang, a language genetically and geographically close to dialects ranging from moderately to wildly innovative, is by comparison shockingly conservative—in fact, it may be the most conservative language of Borneo anywhere outside Sabah.

11.2. OVERVIEW OF THE DAYIC DIALECTS

The exact number of Dayic dialects is even now uncertain. Data from thirty-four dialects were considered in the preparation of this dissertation. While a few others yet may probably exist, the total is not likely to be much higher.

11.2.1 DISTRIBUTION

The Dayic dialects are concentrated principally in the highlands of Sarawak's Miri and Limbang Divisions, Sabah's Sipitang and Tenom Districts, and Kalimantan's Krayan and Krayan Se-

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[1] Also variously called "Apo Duat" or "Apad Uat;" see Hudson (1977) and Hemmings (2016).

latan Subdistricts, an area affectionately known among locals as the "Heart of Borneo." A map presenting an overview of Dayic-speaking Borneo is given as figure 11.1. The following subsections then break down language distribution by watershed.

FIGURE 11.1. DAYIC-SPEAKING REGIONS OF BORNEO
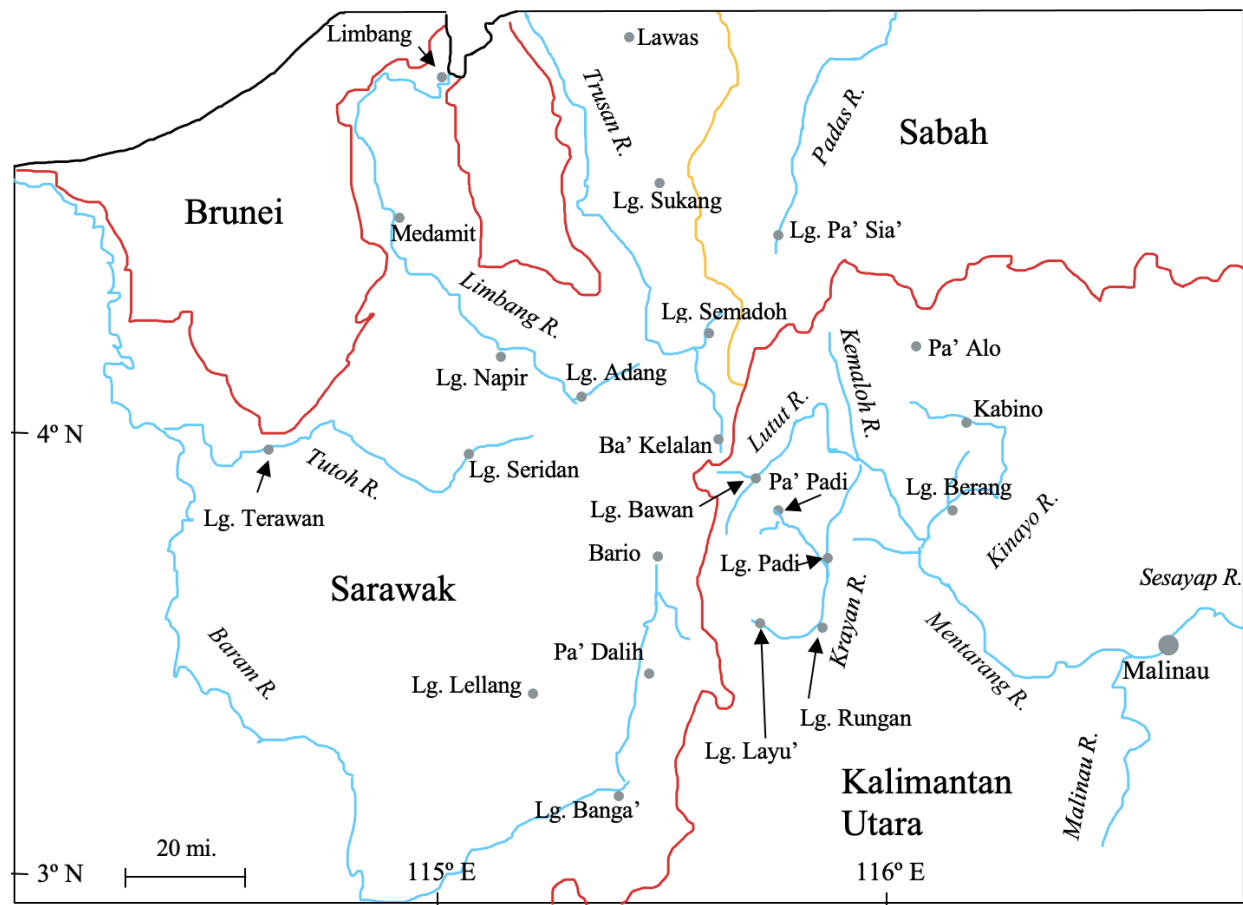
11.2.1.1 SESAYAP WATERSHED (AND ADJACENT), KALIMANTAN

Nearly all Dayic dialects in Kalimantan are found on tributaries of the Sesayap River, called the Mentarang upstream of the confluence of the Malinau. Figure 11.2 provides an illustration of the relevant river systems and population centers.

FIGURE 11.2. SESAYAP WATERSHED AND ADJACENT AREAS

FIGURE 11.2. SESAYAP WATERSHED AND ADJACENT AREAS
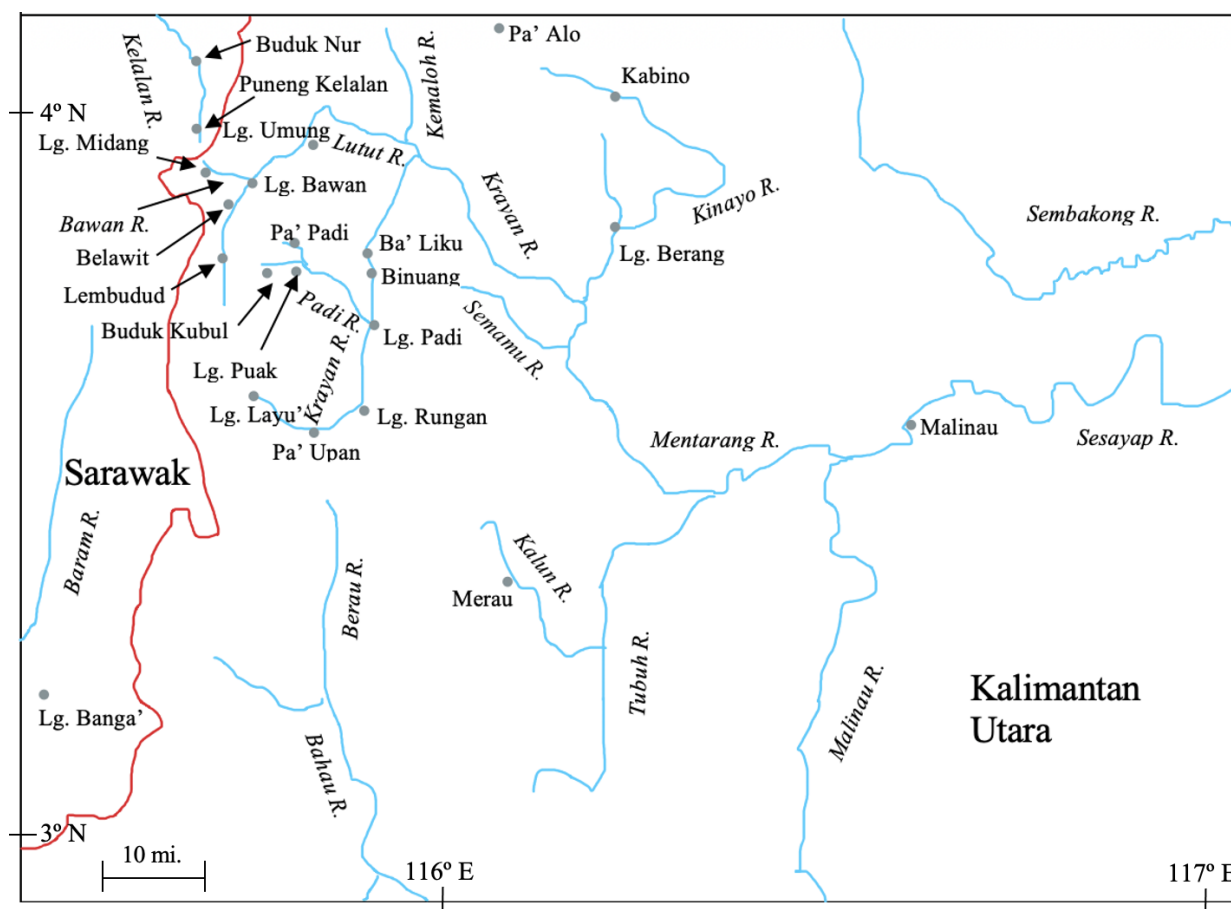
A short distance upriver from the confluence of the Krayan is found Long Berang; a Lundayeh dialect was reportedly spoken here as well as up the adjacent tributaries of the Mentarang, with a small number of speakers spilling over into the upper tributaries of the Sembakong to the north. Data on this dialect are scarce, coming only from Schneeberger (1979) and secondhand from Ricky Ganang (p.c.), but it does not appear to differ significantly from the Kemaloh dialect except by a couple of sound changes. Whether this area is still populated or if, like the Kemaloh to the west, the inhabitants have since relocated to lower ground, is unclear.

The Kemaloh dialect itself originated further to the west on the Kemaloh River, which joins the Krayan about 40 kilometers west-northwest of Long Berang. The Kemaloh River itself is no longer inhabited, speakers having moved westward into the Krayan-Lutut basin and settled in the villages east of Long Bawan, especially Long Umung, on the Lutut River.

Further up the Lutut River and its tributaries are found two dialects: the first is the Southern Ba' dialect, found on the Lutut headwaters from Long Bawan, the Krayan subdistrict's major population center, upriver to Lembudud in the south. The other is the Northern Ba' dialect, found on the Bawan river, to the northwest of Long Bawan, and reaching all the way to Long Midang at the border with Sarawak.[2]

A much larger number of dialects can be found on the Krayan and its tributaries. Moving upriver from its meeting with the Kemaloh, the first two settlements are Ba' Liku and Binuang, the dialect from the latter of which is clearly Lengilu'. The former dialect has also been claimed to be Lengilu' (Clayre 2005), but the linguistic evidence does not support this classification. The next settlement upriver, at the confluence of the Padi, is Long Padi, where another Lengilu' dialect is spoken. On the upper Padi and the Kurid, one of its tributaries, can be found a cluster of three closely related dialects at Pa' Padi, Buduk Kubul, and Long Puak, which are among the most innovative in the family and display sound changes that are highly unusual, even bizarre.

Continuing up the Krayan from Long Padi, the next settlement is Long Rungan, which appears to be in origin a local dialect now mixed with some Lengilu' due to an influx of the latter from further downriver. Nearby is found Tang Paye, which appears connected to Sa'ban. Further upriver still is Pa' Upan, where the population is mixed, including some Punan, Sa'ban (a recent back-migration, per Sellato (2009)), and possibly Lengilu'. Furthest up the Krayan is the Krayan Selatan subdistrict's major population center, Long Layu', a village formed when eight longhouses in the region moved together during the government-led reorganization campaign mentioned in §2.5. Long Layu' is a mixed area, originally settled by speakers of a number of smaller local dialects with little available data and now having a substantial Lengilu' population as well as a recent influx of Kemaloh speakers.

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[2]The terms "Northern" and "Southern" Ba' are based on longstanding geographical and agricultural considerations and should not be taken to imply an especially close genetic relationship. Indeed, as shall be demonstrated herein, Northern Ba' appears to fall within the umbrella of Lun Bawang, while Southern Ba' may not.

To the southeast of the Krayan were once found a number of peoples whom Sellato (2009) calls Merau-Kalun, apparently closely related to Sa'ban, on the upper Tubuh River, another tributary of the Mentarang. Further to the west, speakers of similar dialects have spilled over into the upper Bahau River system, a tributary of the Kayan.[3] Per Clayre (2005), these populations have since dispersed, migrating westward into Sarawak, back northward into the Krayan, or further down the Bahau. A Tring dialect is rumored to be spoken further south in the Mahakam River watershed (Blust 1984, *inter alios*), but no data on this dialect are available.

11.2.1.2 UPPER PADAS RIVER, SABAH

The Sabahan Lundayeh in the Sipitang and Tenom districts speak a variant of the Kemaloh dialect that arrived via northward migration of speakers from the Kemaloh River area. (See the map in figure 11.1 for the location.)

11.2.1.3 TRUSAN RIVER, SARAWAK

Sarawak's Trusan River hosts three main Dayic dialects. One, found on the Kelalan, a tributary of the upper Trusan, is nearly the same as the Northern Ba' dialect of Kalimantan's Bawan River. Geographically, these regions are adjacent, with Long Midang, the furthest upriver of the Bawan villages, being just across the ridge forming the Malaysia-Indonesia border from Puneng Kelalan, the furthest upriver of the Ba' Kelalan villages.

The second dialect found on the Trusan is the Kemaloh dialect, spoken along the river from its headwaters at Long Semadoh down to Long Sukang on the nearby Tengoa River, a tributary of the middle Trusan.

The third Trusan dialect, called *Pa' Ruab* by Southwell (1949), is found on the mid-to-lower reaches of the river as well as further to the east near the town of Lawas.[4]

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[3]*Caveat lector:* The Krayan and Kayan Rivers, though having similar names, must not be confused.

[4]Based on information provided by Tuie (1995), this dialect appears to have been the original dialect of the upper Trusan, whose speakers were displaced downriver about six generations after its initial settlement by the arrival of the more warlike Kemaloh people. Cf. also §2.3.

11.2.1.4 LIMBANG RIVER, SARAWAK

A dialect called Tabun, about which little is known other than the wordlists collected by Ray (1913) is found near Medamit on the lower Limbang River.[5] Ray classifies Tabun as a Tring variety, and Hudson (1977) reports that most Tabun have since shifted to Adang, a Lun Bawang dialect from further upriver. On the upper Limbang, a Kelabit dialect may be found at Long Napir. Further upriver still is Long Adang, the original home of the aforementioned Adang dialect. The settlement was abandoned in the 1940s (for which see §2.3), and its residents dispersed, with some going downriver to Limbang, others to Kalimantan (especially the Bawan River area), and yet others to Long Kerebangan on the upper Trusan, where they have since largely assimilated to the Kemaloh dialect (Agong Taie, p.c. [10 June 2018]).

11.2.1.5 BARAM RIVER, SARAWAK

Except for Long Napir, all Kelabit dialects are found on Sarawak's Baram River and its tributaries, primarily along the the headwaters, from Pa' Lungan in the north through Bario onward to to Pa' Dalih in the south. Of these, two documented Kelabit dialects are not found on the headwaters but rather its tributaries. One is that of Long Lellang, found on the upper Akah River, a tributary of the middle Baram, and the other is that of Long Seridan, found on the Magoh River, a tributary of the upper Tutoh, in turn a tributary of the lower Baram. Midway down the Tutoh from Long Seridan is Long Terawan, where is spoken a dialect called Tring, which has been influenced to a degree by contact with a Berawan variety from a separate but fairly closely related language group.[6] Ray (1913) also reports that a similar dialect, which he labels Balait, can be found on the Tutoh River at Long Tepin, data for which are scarce but clearly indicate that it is a Dayic dialect,

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[5]Ray also reports that Tabun speakers may be found on Kalimantan's Malinau River, but no data are available to confirm this claim. One might reasonably wonder whether this dialect could be the same as or similar to the Tring dialect reportedly spoken in the Mahakam watershed.

[6]Interestingly, the Tring at Long Terawan hold that their settlement is the result of a back-migration from the Mahakam already mentioned as the rumored location of another Tring or Tabun dialect (Blust 1984).

probably Tring.[7] The upper Baram is also home to the westernmost Sa'ban dialect, found in Long Banga', about thirty miles to the south of the nearest Kelabit settlement of Pa' Dalih.

11.2.1.6 TEMBURONG DISTRICT, BRUNEI

The Dayic dialect with a small number of speakers in the Temburong District of Brunei appears to be the same as the Pa' Ruab dialect found in the lowlands of Sarawak's Limbang Division (Southwell 1949).

11.2.2 PROPOSED GROUPINGS

Several groupings of the few dozen Dayic dialects have previously been proposed. The earliest comes from Ray (1913), who provides three divisions: Kelabit, Tring, and Murut. Kelabit appears to consist of the groups conventionally known as such on the upper Baram and Limbang Rivers. His Tring group includes both Tabun and Balait, but no mention is made of Long Terawan. The third group, "Murut," includes the dialects of the Trusan River and the Adang River (upper Limbang) in Sarawak as well as the upper Padas and its tributary the Matang in Sabah (where a small number of Kemaloh speakers may be found). No mention is made of Lengilu', Sa'ban, or any of the other dialects of the Krayan, Tubuh, or Bahau River systems.

Southwell (1949) provides a classification with seven dialect groupings. They are, in order of his presentation:

1. Pa' Ruab, the dialect of the mid-lower Trusan, Lawas, and Brunei's Temburong District.

2. Pa' Brunei, the varieties found along the Limbang River and its tributaries, presumably including the Adang dialect. Southwell (1949:105) reports that this dialect "shows Tabun influence" but does not address the classification of Tabun itself.

3. Ba', spoken in the areas where wet rice agriculture was practiced prior to the 1960s, i.e., Ba' Kelalan in Sarawak, the villages across the international border to the south, and the

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[7]This "Balait," a Dayic language, must not be confused with another, better known language also called "Belait," a language of Brunei related to those of the lower Baram River and also known as Lemeting (cf., e.g., Martin 1993).

Lutut River valley in Kalimantan. Southwell (1949:105) notes that "there are several local varieties of this dialect," but they are in actuality different enough that they may not belong in a single subgroup at all.

4. Kemaloh, spoken on the upper Trusan in Sarawak, the upper Matang in Sabah, and near the confluence of the Krayan and the Beruan (the name of the Lutut downriver from the confluence of the Rayeh until it meets the Kemaloh).

5. Long Berang, spoken near where the Berang meets the Mentarang, a few miles up the latter from the confluence of the Krayan.

6. Ulu Krayan, spoken in the Krayan Selatan subdistrict. This label in fact likely refers to multiple otherwise unclassifiable dialects of the upper Krayan and may also cover Lengilu'.

7. Kelabit, including all those dialects conventionally so-called.

Southwell (1949) includes no mention of Tring (unless he considers it synonymous with Tabun), Sa'ban, or Lengilu', although the latter may be included within his "Ulu Karayan [sic]" classification. No mention, either, is made of the aberrant dialects of the upper Padi and Kurid Rivers near the middle Krayan. While certain of these categories may well be valid, the omissions and the lumping together of a single *Ba'* category both call for further examination.

Hudson (1977) presents a two-branch model of Dayic. One branch he calls "Kelabitic," consisting of the dialects conventionally called "Kelabit" in the Baram watershed. To the second branch are assigned all other dialects: all varieties of Lun Bawang/Lundayeh, as well as Adang, Pa' Ruab, "Tabun Treng [sic]," and Kemaloh (how this dialect differs from Lun Bawang/Lundayeh is unclear). While less certain, he also supposes that Sa'ban belongs to this group. His isolation of Kelabit from the rest is in line with Southwell's (1949:105) claim that Kelabit is the "most divergent" of the Dayic dialects, although this claim cannot now be maintained given the availability of data on Sa'ban and the Ulu Padi dialects. The Kelabitic branch has a respectable probability of being valid (§11.4.1), but the other branch very likely ought to be split up.

Blust (2006, *inter alia*), supported by Smith (2017) also holds to a two-branch model of Dayic, albeit a quite different one. The first branch he labels a "Murut" group, consisting of Lun Bawang (Kemaloh, the only dialect for which he had data at the time; Smith adds Southern Ba'), and the second he labels "Kelabit," consisting of all dialects conventionally considered Kelabit along with Sa'ban and Tring. Tabun, Balait, and Lengilu' are excluded for lack of available data. A case may certainly be made for the grouping together of the so-called Kelabit dialects (§11.4.1), but, in view of data on several newly recorded dialects from Kalimantan, the position of Sa'ban and Tring is less clear, in particular since their grouping with Kelabit is based on lexicostatistical similarity and not exclusively shared innovations.

Sellato (2009) proposes a four-branch model, consisting of Kelabitic, Kemaloh, Lengilu', and Sa'ban.[8] His Kelabitic branch includes not just the dialects conventionally called Kelabit, but also the Northern and Southern Ba' dialects and the three closely related Ulu Padi dialects. His mention of its spread to the Limbang and Tutoh Rivers could be taken to imply that Tring and Tabun fall in this group, unless by it he means only the Kelabit dialects of Long Napir (upper Limbang) and Long Seridan (upper Tutoh). His second branch, Kemaloh, consists of the Kemaloh and Long Berang dialects, geographically adjacent prior to the spread of Kemaloh and reportedly highly similar. The third group, Lengilu', consists of two varieties, one spoken in the Ba'Liku/Binuang area, and one further up the Krayan River in the Long Padi/Long Rungan area, a form of which is also spoken in Long Layu' much further upriver. Sa'ban is given a branch of its own in this model; two dialects called Selio' and Merau-Kalun are included in this group, but adequate data on these are not available.

The last major classification to take into account, and the one that will be used as a starting point for historical investigation, is that of Clayre (2005). Clayre accepts the basics of Sellato's classification with one adjustment, splitting up "Kelabitic" into three groups. One consists of Kelabit and the Ba' dialects; the second, the dialects of the upper Padi and Kurid rivers, which she

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[8]Importantly, while Sellato proposes that these are the four main ethnolinguistic groups, he does not propose that they are all primary branches of Dayic, leaving open the possibility of subgrouping some to the exclusion of others.

calls the "central" dialects (herein "Ulu Padi"); and the third, consisting of the dialects found on the upper Krayan River prior to the spread of Lengilu', is labeled "Ulu Kerayan." Clayre (2005) therefore recognizes six groups, which becomes seven when Tring, omitted from her classification, is added.

11.2.3 COMMON INNOVATIONS

The Dayic languages are characterized by a number of common distinctive traits in the form of exclusively shared phonological innovations. Most prominent among these are the merger of the palatal and coronal consonant series, the assimilation of successive dissimilar liquids, a change of intervocalic *k to a glottal stop, and the loss of intervocalic glottal stop under a highly specific condition. Although not unique to Dayic, one further phonological feature is so unusual as to merit a brief discussion, as well: the presence of phonemic voiced aspirated stops or reflexes thereof.

11.2.3.1 VOICED ASPIRATES

The voiced aspirated consonants (cf. §3.1.1.1), considered to be the defining characteristic of the North Sarawak languages, have already been treated in detail in Blust (2006, 2016), and their origin shall therefore be examined only cursorily here.

By the time of Proto-North Borneo, a language ancestral to the modern Dayic languages, two crucial events had occurred (Smith 2017). First, consonants began to undergo allophonic gemination following a penultimate schwa, which was probably stressed at the time; this automatic gemination is still found in Bario Kelabit (cf. Blust 2006, 2016). Second, word-medial consonant clusters resulting from the reduplication of a monosyllable fully assimilated to the second consonant, creating a geminate. The geminates resulting from both these occurrences later (whether in Proto-North Sarawak or independently in Dayic is uncertain) underwent terminal devoicing, resulting in a segment that begins voiced and ends voiceless, often with a late voice onset time for the following vowel. All Dayic languages, even if they do not retain these voiced aspirated stops, display reflexes thereof that differ from the reflexes of plain voiced stops found in similar environments. Thus Kemaloh Lun Bawang has *dicing* 'curtain' from Proto-Malayo-Polynesian *diŋdiŋ

'wall' (via an intermediate *diddiŋ) and *ebpar* 'loincloth' from PMP *bahaR (via *bar > *ebar > *ebbar), but *abuh* 'ash' from Proto-Austronesian *qabu 'ash' (cf. Blust and Trussel 2020).

Because these consonants are single segments that are both voiced and voiceless, that they should be unstable and likely to simplify in some manner or other is only to be expected. Indeed, only Kemaloh Lun Bawang and the Bario and Long Lellang Kelabit varieties retain these consonants more or less intact. Therefore, similarity in the reflexes of the voiced aspirates across certain Dayic dialects will, for subgrouping purposes, be regarded as, at best, a weak criterion, since the reflexes found can also be explained by a common inherited pressure.

11.2.3.2 PALATAL/CORONAL MERGER

One of the defining criteria of the Dayic languages is a merger of the Proto-Malayo-Polynesian palatal consonant series with the coronal series. In particular, Smith (2017) notes that both of PMP *d and *z are reflected as *d* in Dayic. A set of cognates illustrating this change is given in table 11.1.[9] Additionally, PMP *ñ has merged with *n*, such that any *s*-initial verb root that undergoes nasal substitution (§3.3.1) takes *n* as its new onset instead of the *ñ* found in non-Dayic languages (e.g., Kemaloh *sier* 'see' becomes *nier*, not **ñier*, and similarly for its cognates in other Dayic dialects).

TABLE 11.1. DAYIC PALATAL-CORONAL MERGER

PMP	Lengilu'	Sa'ban	Tring	Tabun	S. Ba'	N. Ba'	Kemaloh
*quzan 'rain'	udan	din	udan	udan	odan	udan	udan

11.2.3.3 LIQUID ASSIMILATION

The Dayic languages have, or have historically had, a constraint banning successive dissimilar liquids, namely, the sequences *lVr* and *rVl*. Where either of these should have appeared, the former liquid has assimilated to the latter. This assimilation is evident in reflexes of PMP *telur 'egg,' which become Proto-Dayic *terur, retained thus in many Dayic dialects. The constraint is

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[9](Long Banga') Sa'ban data from Blust (1999), (Long Terawan) Tring from Blust (1984), and Tabun from Ray (1913).

still active in Northern Ba', where, following a change of *d > r in word-initial position, *dalan 'road' and *dila' 'tongue' became not the expected **ralan and **rila', but lalan and lila'. Many southern Dayic dialects have since ceased to follow this constraint, either changing *r > l at word boundaries or dissimilating a word-final *rVr sequence to rVl, for which see §§11.4.3.2, 11.5.1.

11.2.3.4 *k > ʔ

Another change, pointed out by Smith (2017), is a change of intervocalic -k- to a glottal stop (later lost in a number of dialects). Two examples are given in table 11.2:[10]

TABLE 11.2. *k > ʔ

PMP	Lengilu'	Sa'ban	Tring	Tabun	S. Ba'	N. Ba'	Kemaloh
*takut 'fear'	ta'ot	ta'eut	ta'ut	tahut (?)	taut	taut	tot
*sakit 'pain'	a'ét	ét	a'it	(?)	ait	ait	ét

The change is not without exception, with sporadic common Dayic lexemes retaining an intervocalic singleton *k, such as baka 'wild boar' from an earlier *bakas, as demonstrated by cognates in non-Dayic languages of northern Borneo (Ray 1913; Lobel 2016). This change to a glottal stop did not affect geminate intervocalic *kk, meaning that the degemination that has occurred in most Dayic dialects followed this change. Thus, a word such as beken 'different' retains the consonant, as it reflects Proto-Dayic *bekken due to automatic gemination of a consonant following a penultimate schwa, a phenomenon still present in Bario Kelabit (cf. §11.2.3.1). Likewise, geminate intervocalic *kk resulting from the assimilation of a consonant cluster in a reduplicated monosyllable was exempt. Hence, from the root *kud, reduplicated to *kudkud, comes *kukkud by assimilation and kukud 'leg' by degemination.

11.2.3.5 GLOTTAL STOP DELETION

A final possible diagnostic for the Dayic languages is the deletion of intervocalic glottal stop in a very particular environment: between non-identical vowels if the first vowel is high (Smith 2017). Whether this deletion is actually a pan-Dayic innovation is impossible to verify since a

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[10]Sources of non-original data: Sa'ban from Blust (1999), (Long Terawan) Tring from Blust (1984), Tabun from Ray (1913), Southern Ba' from Smith (p.c.).

number of northern (predominantly Lun Bawang/Lundayeh) dialects have dropped the intervocalic glottal stop entirely. Whether the entire group had undergone this change prior to the total loss of the intervocalic glottal stop in the northern dialects therefore cannot be determined. This change is best exemplified by reflexes of PMP *ikur 'tail,' which, according to the change in the previous subsection, became *i'ur, then losing its glottal stop in all Dayic dialects. Thus, even in the somewhat phonologically conservative Lengilu', *ior*, and not **i'or*, is found, and likewise *iur* in Bario Kelabit, both of which have otherwise retained the intervocalic glottal stop.

11.3. KEMALOH HISTORICAL PHONOLOGY

Before examining the whole of the Dayic family, a brief overview of the historical phonology of the conservative Kemaloh Lun Bawang dialect, the primary subject of this dissertation, will set a helpful basis for comparison.

11.3.1 FIRST MONOPHTHONGIZATION

The first change that affected this dialect (among many others) is an unconditioned monophthongization whereby Proto-Dayic *aw and *ay became /o/ and /é/, respectively. A sampling of affected words are shown in table 11.3.[11] For a cross-linguistic treatment of this change, see §11.5.4.

TABLE 11.3. FIRST MONOPHTHONGIZATION IN KEMALOH

Proto-Dayic	Kemaloh	Gloss
*menaw	meno	'steal'
*edʰaw	eco	'day'
*buraw	buro	'flee'
*laway	lawé	'travel'
*atay	até	'liver'
*paday	padé	'rice plant'

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[11]Orthographic note: In reconstructions, the voiced aspirates are written <bʰ>, <dʰ>, and <gʰ> to make clear that they are single phonemes. In the daughter languages that retain the voiced aspirates, however, the standard orthographic conventions (<bp>, <dt> or <c>, and <gk>) are followed.

11.3.2 LOSS OF INTERVOCALIC GLOTTAL STOP

Following the first monophthongization, a far smaller number of dialects underwent a second change whereby the intervocalic glottal stop was entirely lost, creating new sequences of adjacent vowels which would later either coalesce or monophthongize (cf. §§11.3.3, 11.3.4). This change is illustrated in table 11.4. For a cross-linguistic discussion of this change, see §11.5.5.

TABLE 11.4. LOSS OF INTERVOCALIC GLOTTAL STOP IN KEMALOH

Proto-Dayic	Post-Deletion	Gloss
**ta'ut	*taut	'fear'
**da'un	*daun	'leaf'
**na'it	*nait	'wait'
**ma'it	*mait	'sick, hurt'
**mi'id	*miid	'wipe'
**ngu'ut	*nguut	'suck'

11.3.3 VOWEL COALESCENCE

Following the loss of intervocalic glottal stop, some dialects (it is not entirely clear which, except that Kemaloh was among them and that the Southern Ba' dialect of the Long Bawan area was not) experienced some contractions and coalescence in vowel sequences. A sequence of two adjacent identical vowels would coalesce into a single long vowel, e.g., *puung [pu.ʊŋ] 'animal' (thus preserved in Southern Ba') > *pung* [puːŋ] in Kemaloh. Similarly, *miid [mi.ɪd] 'wipe' > *mid* [miːd]. When the loss of intervocalic glottal stop resulted in a sequence of the form *ae*, it would coalesce into a long [aː], as in, e.g., **da'et 'bad' > *daet > dat [daːt̪].

11.3.4 SECOND MONOPHTHONGIZATION

The final change, affecting only the Kemaloh dialect, was a second monophothongization affecting the new diphthongs *au and *ai that had resulted from the loss of intervocalic glottal stop, producing (invariably long) mid-vowels. This monophthongization operated under a more restrictive condition than the first one, exempting those diphthongs which occurred either word-finally or before a final glottal stop. Examples illustrating this change and where it did not apply are shown in table 11.5.

TABLE 11.5. SECOND MONOPHTHONGIZATION IN KEMALOH

Other Lun Bawang	Kemaloh	Gloss
daun	don	'leaf'
taut	tot	'fear'
mait	mét	'sick, hurt'
pait	pét	'bitter'
ngi-nait	ngi-nét	'wait'
delai	delai	'man'
tai'	tai'	'excrement'
me-lau	me-lau	'hungry'
me-lau'	me-lau'	'hot'

11.4. PROBABLE GROUPINGS

Among the Dayic dialects, several groupings can be considered probably or even certainly valid based on a sufficient number of exclusively shared innovations, mostly phonological, of a high enough quality. Several Dayic subgroups are likely to be valid on this basis, each of which is taken up in the the following subsections.

11.4.1 KELABIT

At least one innovation is shared among all and only those dialects known by the name "Kelabit." Each has (with some sporadic exceptions) changed a word-initial *t to *s* before *i, which occurs prior to antepenultimate vowel neutralization. (In contrast to Lun Bawang, Kelabit often reduces *i to *e* in antepenultimate syllables.) Therefore, although these two changes are, taken on their own, of rather low quality, the fact that these dialects share not just the changes but also the relative chronology makes a Kelabit subgroup probable. Examples are available for no fewer than four Kelabit dialects, taken from Blust (1971), and are given in table 11.6.[12] Kemaloh Lun Bawang is used as a non-Kelabit basis for comparison.

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[12]As is usually the case, a number of sporadic exceptions, most of them verb roots, may be found. Tuan and Smith (forthcoming) gives, for the Bario dialect, such lexemes as *tibu* 'to plant,' *tidta'* 'step on something; footprint,' *tidtu'* 'hand,' and a small number of others beginning in *ti-*. Some of these exist in free variation with *si*-initial forms (*tidta'* 'footprint' ~ *sidta'*, *tidtul* 'point' ~ *sidtul*), while others do not. When infixed for the perfective patient voice, however, all, without exception, undergo the expected change of *t > s before the *i* of the infix <*in*>.

TABLE 11.6. *t > s / #___i

Proto-Dayic	Bario	Long Lellang	Long Napir	Pa' Dalih	Kemaloh	Gloss
*tina'	sina'	sina'	sinan	sina'	tinan	'mother'
*tinu'eh	senu'eh	senu'eh	senu'eh	senu'eh	tinueh	'right (side)'
*t<in>urun	sinurun	—	sinurun	sinurun	tinurun	'lowered'

Smith (2017) has argued for the inclusion of Sa'ban within Kelabit because of this sound change, pointing out that Sa'ban reflects Proto-Dayic *tina'ih 'intestines' as *sen'ay*, corresponding to the form *sena'ih* found in the above Kelabit dialects. This word, however, appears to be a sporadic exception; the vocabulary given in Blust (1999) contains no other unambiguous instances of words reflecting a change of *t > s,[13] and at least one word can be found that does not: Proto-Dayic *tinien 'catfish' is reflected as *telnyen*, in contrast with the *sinien* found in Kelabit. A further reason to suppose that this word is a sporadic mutation is that the same is found in the Lengilu' dialect of Long Layu' (*inter alia*), where *tina'ih* and *sena'ih* coexist in free variation, but almost no other instances of *t > s are attested (Proto-Dayic *tina' 'mother' is reflected as *tinam*, *tid^{h}u' 'hand' as *tisu'*, and *tinu'eh 'right' as *tinu'eh*). While this sound change is a valid criterion for designating a Kelabit subgroup, the inclusion of Sa'ban appears unjustified.

11.4.2 THE ULU PADI DIALECTS

Perhaps the most plainly valid subgroup within Dayic is that consisting of the dialects of the upper Padi River and its tributary, the Kurid, spoken in the three villages of Pa' Padi, Buduk Kubul, and Long Puak.[14] These three dialects share several sound changes with conditions that are unusual, perhaps even unique, not just among Austronesian languages, but on a global scale. Within this group, Buduk Kubul and Long Puak demonstrably form a lower-order subgroup that excludes Pa' Padi. The changes shared by these three dialects are exemplified in their respective subsections below. The relative chronology of the changes must follow the order of presentation.

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[13]One difficulty with evaluating Sa'ban is that, in many cases, the reflexes of both *t and *s have merged, by coalescing with and devoicing a following sonorant.

[14]The writer's Long Puak corresponds to Clayre's (2005) Long Kabid, which no longer exists as a distinct village. The writer's Buduk Kubul probably corresponds to her Pa' Kurid in the same manner.

11.4.2.1 VOICED STOPS > y / #__a

Perhaps the strangest change in the Ulu Padi language group is that of word-initial voiced stops to /y/ only if followed by the vowel /a/. Examples of the change with *ba- and *da- initial words are shown in table 11.7. Examples of words with *ga- are difficult to come by, but Long Puak does attest *gala' > *yala'* 'clear' and *ganang > *yanang* 'act of lifting.'

TABLE 11.7. VOICED STOPS > y #__a

Proto-Dayic	Long Puak	Buduk Kubul	Pa' Padi	Gloss
*me-bata'	yata'	yata'	yata'	'green, blue'
*me-baur	yaul	yaul	yaul	'full, satiated'
*ba'ung	ya'ung	*ya'ung > i'ung	ya'aung	'banana'
*dapur	yapul	yapul	yapul	'kitchen'
*da'un	ya'un	*ya'un > i'un	ya'un	'leaf'

11.4.2.2 EROSION FROM THE LEFT

Following the above-mentioned mutation of voiced stops into *y*, all word-initial consonants except for glides and voiceless obstruents were lost before any vowel *other than* /a/. If the erosion resulted in a schwa's falling on the left edge of the word, it, too, would be lost.[15] Table 11.8 exemplifies this phenomenon.

TABLE 11.8. EROSION FROM THE LEFT IN THE ULU PADI DIALECTS

Proto-Dayic	Long Puak	Buduk Kubul	Pa' Padi	Gloss
*beti	ti	ti	ti	'calf'
*bua'	va'	va'	va'	'fruit'
*ded^{h}ur	cul	cul	sul	'woman'
*gegker	icel	icel	—	'shiver'
*masiw	acéw	acuy	asuy	'sell'
*nebpa	fé	fé	fa	'tomorrow'
*ngirup	irop	irup	—	'drink'
*riek	yek	zek	—	'hiccough'

The results of this change are extraordinarily uncharacteristic of Austronesian languages, which in general favor disyllabic roots. The necessary precondition for this erosion would seem to be a

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[15]Proto-Dayic *l is somewhat erratic; no condition has yet been found to determine when it is retained or lost.

stress shift away from a Lun Bawang-like pattern (§3.4), with relatively even weight a word's last two syllables and a slight preference for the ultima, to a much more lopsided pattern, with heavy stress on the ultima and a concomitant de-stressing of the penult. Some such event probably also occurred in the pre-history of Sa'ban (§11.4.4), which has also experienced erosion from the left, in a quite distinct manner with quite different consequences, and perhaps also in other, only distantly related, languages of Borneo such as Hliboi Bidayuh and Merap, which have undergone similar phenomena to varying degrees (cf., e.g., Blust (1999), Smith (2017)).

11.4.2.3 GLIDE FORTITION

Although less consistent, and perhaps even allophonic, varying degrees of fortition of *w are observed across all three dialects. Each reflects Proto-Dayic *bua' 'fruit' as *va'* (likely from intermediate **ua' > *wa'). Reflexes of the 1SG pronoun *uih are less consistent, with *wéh* in Long Puak, *véh* in Buduk Kubul, and *vwéh* in Pa' Padi.

11.4.2.4 A KURID RIVER SUBGROUP

The two dialects of Buduk Kubul and Long Puak can be further shown to form a subgroup that excludes Pa' Padi because of two further changes: both changed *k > h in word-initial position before /a/, such that, e.g, *kai '1PL.EXCL' became *hai*. Both dialects also took Ulu Padi's erosion from the left further by deleting (with sporadic exceptions) *all* consonants except glides in words of more than one syllable, if they occur, once again, word-initially before any vowel *other than* /a/. For example, where Pa' Padi has *kejung* 'face' from Proto-Dayic (PDAY) *kiung, Long Puak has *yung*, and Buduk Kubul has *zyung*. Likewise, both the Kurid dialects have *ukud* 'leg' from PDAY *kukud, while Pa' Padi retains the onset. The internal structure of Ulu Padi may be illustrated as in figure 11.3.

FIGURE 11.3. INTERNAL STRUCTURE OF ULU PADI

Ulu Padi

Pa' Padi   Ulu Kurid

Buduk Kubul   Long Puak
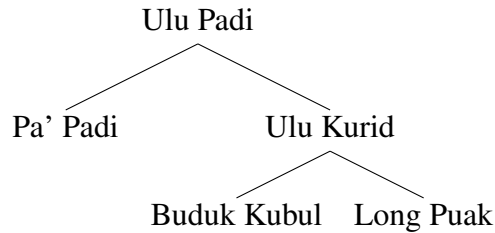
11.4.3 LENGILU'

Another group that can be safely circumscribed is Lengilu', consisting of at least the dialects of Long Layu', Long Padi, Binuang, and the former village of Long Mutan. Two sound changes, given in the present subsections, delineate this group. The dialect of Long Rungan also appears to share one of these changes with Lengilu', but inconsistently so. It is therefore probably a distinct dialect that has fallen under Lengilu' influence as a result of their upriver expansion. The group may be conveniently divided into Northern Lengilu' (Binuang) and Southern Lengilu' (the remaining dialects), but these are labels reflecting broader areal trends (for which see §§11.5.3, 11.5.4) and not genetic labels.

11.4.3.1 VOWEL LOWERING IN (MOST) CLOSED SYLLABLES

All four of these dialects display some degree of lowering of the high vowels *i and *u in syllables closed by any coda other than *-h* or a voiced stop. Table 11.9 gives a sample of this lowering, using Long Layu' as a representative of Southern Lengilu' and Binuang for Northern Lengilu', though they do not differ significantly in these particular data.

TABLE 11.9. LENGILU' HIGH VOWEL LOWERING

Proto-Dayic	Long Layu'	Binuang	Gloss
*ba'ung	ba'ong	ba'ong	'banana'
*buri'	buré'	buré'	'speak'
*ma'it	ma'ét	ma'ét	'sick, hurt'
*ngirup	ngirop	ngirop	'drink'
*ped^{h}i'	pesé'	pesé'	'sweet'
*tud^{h}u'	tuso'	toso'	'salt'

While vowel lowering in closed syllables is hardly an uncommon phenomenon in itself, the precise conditions for this Lengilu' change are somewhat unusual: a voiced stop or *-h* in a coda blocks this lowering, as exemplified by unaltered retentions of, e.g. *lawid 'fish,' *ipub 'dew,' *la'ud 'downriver,' *ngemug 'keep,' *buluh 'body hair,' and *ta'ih 'excrement.'

11.4.3.2 WORD-FINAL *r > l DISSIMILATION

Another change affecting both Northern and Southern Lengilu' involves a dissimilation of word-final *r > l if the preceding consonant is also /r/. Thus from *merur 'tired,' both dialects have *merol*, and from *terur 'egg,' both have *terol*. Also attested in Long Layu' is *burol* 'body' from *burur, and Binuang attests *biral* 'yellow' from *birar. This change occurs only as a dissimilation and does not affect instances of *-r that are not preceded by another /r/; thus, both dialects retain, e.g., *ni'er 'see' and have *temesor* 'rhinoceros' from *temed^hur, with no liquid mutation.

11.4.3.3 A NOTE ON BA' LIKU

While the Lengilu' dialects dealt with in this section constitute a clearly valid group on the basis of the two changes with highly specific conditions discussed above, the picture may be somewhat more complex. Clayre (2005) also designates the dialect of Ba' Liku, a very short distance to the north of Binuang, as Lengilu'. The precise rationale for this classification is not stated and therefore unclear. Perhaps her informant identified herself as Lengilu', or perhaps the assumption was made based on geographical proximity to Binuang, within the general area from which the Lengilu' are reputed to have spread. The linguistic evidence to justify such a classification, however, is lacking.

First, the Ba' Liku dialect does not share either of the innovations given above to define Lengilu' as a linguistic entity. While Ba' Liku does exhibit a few instances of sporadic high vowel lowering in closed syllables (e.g., *ba'ong* 'banana' from PDAY *ba'ung), the high vowels are more often retained (e.g., *pelanuk* 'mouse-deer,' where Lengilu' has *pelanok*; *sit* 'adult frog' from PDAY *etit, where Lengilu' varies freely between *tét* or *sét*;[16] *tisu'* 'hand' from PDAY

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[16]Though apparently sharing the change of *t > s / #__i with Kelabit, the sharing is illusory, as the change in these dialects is sporadic and confined only to one or two lexemes.

*tid^{h}u', where Lengilu' has *tiso'*). Ba' Liku also does not share the dissimilation of word-final *r >
l if part of a sequence of the form *rVr#. Instead, this dialect changes *r > l at all word boundaries,
a feature that it shares with the Ulu Padi dialects, Greater Sa'ban, one Tring dialect, and at least
one Ulu Krayan dialect (for which see §11.5.1). Besides the fact that Ba' Liku does not share these
two innovations with the Lengilu' dialects, finding any exclusively shared innovations that might
justify a higher-order grouping that would split into Ba' Liku and other Lengilu' dialects has so far
been impossible.

Ba' Liku does share at least two features with the Northern Lengilu' dialect of Binuang: it
displays the first monophthongization (cf. §11.5.4) and shares with it the Northwest Dayic-type
pronouns not found in Southern Lengilu' dialects (cf. §11.5.3). These, however, are hardly dis-
tinctive of Lengilu', as they also characterize dozens of other dialects and are better understood as
areal features, to be discussed in their respective sections below. That both have *so* as the 2SG per-
sonal pronoun (< PDAY *ikaw) is slightly better as evidence. In many dialects in the Krayan-Lutut
basin, reflexes of *ikaw have undergone some degree of palatalization, the outcomes of which vary
considerably (Clayre 2005). Ba' Liku and Binuang are the only two attested dialects to display *so*.
Even so, a single exclusively shared pronominal form between two dialects that are in immediate
proximity is hardly strong evidence for a tight genetic relationship.

The foregoing evidence makes clear that Ba' Liku does not belong to Lengilu' as characterized
by the two innovations provided in this section. Ba' Liku may indeed belong to a higher order
Lengilu' group with a binary division into Ba' Liku and the rest, in which case Clayre's (2005)
label would be correct. Such a claim is in principle impossible to disprove unless either Ba' Liku
or Lengilu' can be shown instead to subgroup with some other dialect(s) due to exclusively shared
innovations. However, the burden of proof must remain on the positive claim of relationship, and
the linguistic evidence in its support, at least for the time being, is nonexistent.

11.4.4 GREATER SA'BAN

Another safe grouping includes several dialects can be labelled "Greater Sa'ban." This includes
the best studied dialect, the Sa'ban dialect of Long Banga', as well as several others: the dialect

of Tang Paye, located near Long Rungan, and four dialects attested to by Schneeberger (1979), albeit with very little data: one from Long Pupung, near Long Layu';[17] another from Pa' Dalan, to the north of Long Layu';[18] and two from further south, one each from the upper Berau and Merau-Kalun River systems. Though few words for these four are available, the sound changes demonstrated therein are of sufficient quality to group them together beyond any reasonable doubt.

The chief among these is the raising of *a when a voiced obstruent, including a voiced aspirate, occurs earlier in the word. Whether the *a raises to /é/ or /i/ varies by dialect; what matters is that the raising occurs in this specific environment. A small sampling of words in table 11.10 is sufficient to demonstrate:[19]

TABLE 11.10. SA'BAN *a RAISING

PDAY	Lg. Banga'	Tang Paye	Pa' Dalan	Lg. Pupung	Berau	Merau-Kalun	Gloss
*eb^{h}a'	pei'	pé'	pé'	pé'	pei'	—	'water'
*bera	brée	—	beré	beré	brée	uéh	'husked rice'
*nuba'	bi'	bwé'	lubé'	bui	bie	bui	'cooked rice'
*rudap	diep	ludék	ludék	déak	diek	diak	'sleep'

Furthermore, all these dialects have undergone, to a greater or lesser extent, erosion from the left, albeit of a quite different sort and under different conditions from that described for the Ulu Padi dialects in §11.4.2.2 above. Every single dialect in this subgroup, for instance, reflects *la'al 'chicken' as *al* and *lawid 'fish' as *awid* (except for Long Banga', which has *awit* due to having devoiced all word-final stops).

All Greater Sa'ban dialects except for Pa' Dalan and Tang Paye very probably form a Sa'ban proper subgroup, as they have two further changes in common: First, they show much more erosion from the left than the other two dialects, having lost their penultimate syllables in the items in table 11.10. Second, and likely connected with the first, they display a degree of metathesis in the

[17]This settlement is no longer inhabited, having relocated to Long Layu'.

[18]See note 17. Schneeberger (1979) curiously labels this dialect "Kalabit [sic]."

[19]Long Banga' data from Blust (1999). Tang Paye data original. Other dialects from Schneeberger (1979).

reflexes of *nuba'.[20] Though the data for the dialects other than Long Banga' and Tang Paye are limited to eleven lexemes each, the sound changes revealed therein are so distinctive and unlikely to recur independently that the grounds for positing a Greater Sa'ban group consisting of these six dialects, as well as a subgroup of Sa'ban including Long Banga', Long Pupung, Berau, and Merau-Kalun, are secure. A proposed structure for Sa'ban is given in figure 11.4:

FIGURE 11.4. INTERNAL STRUCTURE OF GREATER SA'BAN

Greater Sa'ban

Pa' Dalan   Tang Paye   Sa'ban

                              Long Pupung   Merau-Kalun   Berau   Long Banga'

Except for Long Pupung, the dialects here called Sa'ban proper are those whose speakers moved southward out of the Krayan into the upper reaches of the Bahau and nearby river systems. These areas have since been depopulated (Clayre 2005), with speakers having moved westward to Long Banga', Sarawak; back into the Krayan, such as to Pa' Ibang (now relocated to Pa' Upan); and further down the Bahau and Kayan (*not* Krayan) River into lowland areas. The Greater Sa'ban dialects not falling within Sa'ban proper, on the other hand, are probably autochthonous to the Krayan area and not the product of back-migration, as they were attested in the Krayan at a time prior to the depopulation of the Bahau. Greater Sa'ban might therefore plausibly show some affinity with other local dialects of the upper Krayan.[21]

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[20]*Luba'* is also found, some dialects having both forms, which can be used interchangeably. The metathesis phenomenon is discussed at length by Blust (1999) in the Long Banga' dialect, in which it is robustly attested.

[21]Clayre (2005) contains some tantalizing hints suggesting possible links between Greater Sa'ban and the Upper Krayan dialects of Pa' Kaber and Pa' Sing, but more data on the latter two dialects are required to confirm or refute this suspicion.

11.4.5 TRING

Blust (1984) provides evidence that, though small in quantity, is of such a specific nature as to make highly probable that Long Terawan, Tabun, Balait, and fourth dialect that Ray (1913) calls "Trusan" belong to a single subgroup.[22] Blust identifies four changes that link these dialects.

The first of these is the sporadic loss of word-initial consonants from Proto-Dayic, shown in table 11.11:

TABLE 11.11. TRING ONSET LOSS

Proto-Dayic	Long Terawan	Tabun	Balait	Trusan	Gloss
*kukud	ukut	—	ukod	uod	'leg and foot'
*ngadan	adan	ada	—	adan	'name'

This onset loss differs from the erosion from the left seen in Ulu Padi and Sa'ban in that, while in those dialects it occurs due to a regular sound change, it is sporadic in Tring, affecting only a few specific lexical items.

The second change cited by Blust (1984) is that the leading *i-* is lost in second-person pronouns: *ikaw '2SG' > *ko* in Balait, Tabun, and Long Terawan,[23] and *ikam '2PL' > *kam* in Tabun and Long Terawan (becoming singular in Tabun). Based on the data now available, however, the utility of this change for subgrouping is doubtful. The loss of the leading *i-* is extremely common all across the Dayic languages. A sampling of second-person pronouns from the family is given in table 11.12, adapted from Clayre (2005) and modified with original data:[24]

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[22]Ray (1913) classifies "Trusan" as "Murut," i.e., Lun Bawang. What this dialect is is uncertain, as it is clearly distinct from the Kemaloh dialect found on the upper Trusan and the Pa' Ruab dialect found on the middle and lower Trusan, and Ray does not specify where along the Trusan it is spoken.

[23]Ray also gives *'kor* for Trusan, citing J. C. Moulton; the final *-r* is likely erroneous and is often added by British authors to indicate a long final vowel.

[24]See §11.5.3 for further discussion of the Northwest-Southeast isogloss. The term *Ulu Krayan* is used herein, as in Clayre (2005), to refer to the dialects of the Upper Krayan that cannot be easily placed in another group such as Greater Sa'ban or Lengilu'. It is a geographic label of convenience and should not be understood genetically.

TABLE 11.12. LOSS OF *i*- IN 2SG PRONOUNS

	Pronoun form	Dialects
NW Dayic type (*ikaw)	iko	Lun Bawang, Kelabit
	ko	S. Ba', Tring
	kʸo	Ulu Padi (Pa' Padi)
	ico	Ulu Padi (Lg. Puak)
	co	Ulu Padi (Buduk Kubul)
	so	N. Lengilu', Ba' Liku
	sʸo	Ulu Krayan (Pa' Tera)
SE Dayic type (*ikeh)	ikeh	S. Lengilu', Ulu Krayan (Lg. Pa' Sia')
	keh	Ulu Krayan (Lg. Rungan, Pa' Kaber)
	ceh	Sa'ban

The prevalence of monosyllabic forms in the above table indicates that, among the Dayic languages, loss of the leading *i*- in pronominal forms is the norm, not the exception. It must therefore be discarded as a criterion for subgrouping.

The third change cited by Blust (1984) is a sporadic change of penultimate *e to *i*; examples are given in table 11.13:[25]

TABLE 11.13. TRING SPORADIC PENULTIMATE *e > i

Proto-Dayic	Long Terawan	Tabun	Balait	Trusan	Gloss
*dedʰem	dicam	dicem	dicem	dicem	'dark'
*dedʰur	dicul	dicor	dicor	dicur/licur	'woman'

Blust also gives a sporadic change of *ecan > *ican* 'ladder' in Long Terawan; this change is not exclusive to Tring, as it is also attested in Kemaloh Lun Bawang. Those in table 11.13, however, appear to be valid criteria for designating a Tring group.

The fourth change given by Blust (1984) is the lowering of *i to /é/ before a final -*w*, such that, e.g., *bariw 'wind' > *baréw* in all four dialects (written <bareu> in Ray (1913)). While not necessarily invalid, this change should be approached with caution for use as a subgrouping criterion.

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[25]Blust (p.c.) points out that the Long Terawan form *dicul* 'woman' could be influenced by Long Terawan Berawan, which reflects PDAY *dedʰur as *dicu*. This fact is not, however, a sufficient reason to discount the sporadic *e > i change as a whole, as it is attested for the same lexeme in other Tring dialects unlikely to be influenced by Berawan, and it occurs in several other lexemes as well.

Independent sporadic changes of *-iw > -*éw* are attested in several dialects of the Krayan River and its tributaries, including Long Layu' (S. Lengilu'), Binuang (N. Lengilu'), Long Rungan, Long Budung, and Buduk Kubul (Ulu Padi). This change cannot be reconstructed to a single common source for two reasons. First, lexemes affected are not consistent across dialects (the two most common are *keniw 'eagle' and *masiw 'sell'). Second, although it occurs in Buduk Kubul, it is found in neither of the other Ulu Padi dialects, which have both instead metathesized the sequence to -*uy* (and in the case of Pa' Padi, lowered it to -*oy*); it therefore cannot even be reconstructed to Proto-Ulu Padi. Since multiple independent attestations of this change are found across the Krayan watershed, a certain degree of skepticism is called for in regarding it as a diagnostic criterion for a Tring group.

Nonetheless, two of the changes, sporadic deletion of initial consonants in certain lexemes and sporadic mutations of penultimate *e > /i/ in others are of sufficient quality to justify the proposal to link "Trusan," Balait, Tabun, and Long Terawan into a single Tring group.

11.5. Noteworthy Isoglosses of Dubious Genetic Value

The Dayic languages display many more widespread innovations than those discussed in the previous section. However, their distribution is such that they often cut across the genetic boundaries established above. Though these isoglosses are therefore unlikely to be valid criteria for subgrouping, they are not to be ignored since, taken together, they reveal notable patterns of areal influence throughout the Krayan-Lutut basin and beyond.

11.5.1 The Fate of Proto-Dayic *r

Proto-Dayic *r has proven highly susceptible to merger with *l, especially along the mid-to-upper Krayan River and its tributaries. An *unconditioned* merger, however, is found only in a single dialect, that of Long Berang. Otherwise, two conditions for *r > l are attested. The first is one of the defining criteria for Lengilu' (§11.4.3.2), where a word-final *r merges with *l if that syllable's onset is also *r (e.g., *terur 'egg' > *terol*, but *temed^hur 'rhinoceros' > *temesor*). The other, much more common pattern is also much more unusual: Proto-Dayic *r merges with *l only

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at word boundaries. This change is attested in Ba' Liku, Greater Sa'ban, Ulu Padi, Long Terawan Tring, and at least one Ulu Krayan dialect.[26] Table 11.14 illustrates these contrasting changes, using Long Layu' as the paradigm example for Lengilu'.[27]

TABLE 11.14. *r > l UNDER VARYING CONDITIONS IN DAYIC DIALECTS

Environment	PDAY	Gloss	Ba' Liku	Gr. Sa'ban	Ulu Padi	LT Tring	Leng.
Word-final	*ni'er	'see'	ni'el	nyel (LB)	—	ni'el	ni'er
	*ded^hur	'woman'	desul	ssuel (LB)	cul	dicul	desur
Word-initial	*rayeh	'large'	lajeh	layeh (TP)	lajeh (PP)	layah	rayeh
	*rudap	'sleep'	ludap	ludék (TP)	—	ludap	rudap
rV__#	*terur	'egg'	terul	hrol (LB)	terul	terul	terol
	*merur	'tired'	merul	merol (TP)	rul	—	merol

With two exceptions, the dialects showing *r > l at word boundaries are all found along the Krayan River. One of those exceptions is the Ulu Padi dialects, found on the Upper Padi; though the Padi is a tributary of the Krayan, its headwaters are geographically much closer to the Southern Ba'-speaking areas than to any Krayan dialect. The second exception is Long Terawan Tring, much further away on the lower Baram River in Sarawak. The change is sufficiently unusual and therefore unlikely to recur independently as to be worth taking seriously as a criterion for genetic grouping; Blust (1984:114) observes that this change under this condition is very distinctive, having occurred, to his knowledge, "in no other Austronesian language." The evidence available, however, suggests contact and areal influence as a better explanation for its diffusion.

Firstly, Long Terawan Tring can be safely discarded from any proposed genetic grouping based on this change. Long Terawan is already assigned to a Tring group (cf. §11.4.5, *supra*), none of the other members of which display any change of *r > l at all. Furthermore, Blust (1984) observes

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[26]From on the limited data in Clayre (2005), the Ulu Krayan dialect of Pa' Kaber evidently underwent this change. The Ulu Krayan dialects of Pa' Sing and Pa' Tera also show *r > l word-finally, but the data are insufficient to determine whether the change occurred word-initially. Another Ulu Krayan dialect, Long Budung, does appear to change *r > l only word-finally.

[27]Long Banga' Sa'ban from Blust (1999). Long Terawan Tring from Blust (1984). In the Greater Sa'ban column, LB = Long Banga', TP = Tang Paye. Under Ulu Padi, PP = Pa' Padi. Other lexemes in that column are consistent across the three dialects.

that in both Long Terawan Tring and Long Banga' Sa'ban, *r- in monosyllables was exempt from the change, but the two dialects display outcomes that imply conflicting relative chronologies of this change and reduction of certain words to monosyllables.[28] On these two grounds, the change of *r > l at word boundaries cannot be considered a valid criterion for grouping Long Terawan Tring with the other languages displaying the change.

The most likely explanation for the change in Long Terawan Tring is that it was induced by contact, almost certainly with Long Banga' Sa'ban, as they display several similarities that cannot be due to common inheritance. Long Terawan Tring and at least two Greater Sa'ban dialects (Tang Paye and Long Banga') share a sporadic mutation of *beruang 'Malaysian honey bear' to *beluang*, while otherwise retaining intervocalic *-r- (cf. Blust 1984). Long Terawan Tring also shares with Long Banga' Sa'ban the devoicing of word-final stops, which must be due either to parallel independent development or contact, as it occurs in no other attested Sa'ban dialect. While contact may initially seem implausible as an explanation due to the physical distance between Tring and Sa'ban, the Long Terawan Tring's oral history lends implicit support to the contact hypothesis, as well. Per Blust (1984), the Tring at Long Terawan believe themselves to have reached their present settlement following a back-migration from the Mahakam River area, the major river system to the south of the part of the Bahau watershed where Sa'ban was once spoken. If this belief is correct, a contact explanation is highly probable, as their migratory route would likely have taken them through Sa'ban territory.

Although subgrouping on the basis of a single phonological innovation is a risky business, it can be justified if the innovation in question is so unusual as to be unlikely to recur independently. While that does indeed hold true of changing *r > l at word boundaries, the case of Long Terawan Tring demonstrates that a change this unusual can indeed diffuse by contact. Therefore, to attempt

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[28]One of the items Blust (1984) cites for Long Banga', however, *rah* 'large' < *rayeh, may be an anomaly, as Tang Paye, another Greater Sa'ban dialect, has *layeh*, and two other similar Proto-Dayic words, *dayeh 'upriver' and *buayeh 'crocodile' give *ayeh* and *boyeh*, respectively (cf. Appendix 2 in Blust (1999)), suggesting that the reduction of *rayeh to a monosyllable in Long Banga' is irregular. However, sufficiently many other similar items exist that the relative chronology issue still stands.

to link together the other dialects that show it, namely Ba' Liku, the Ulu Padi dialects, Greater Sa'ban, and at least one Ulu Krayan dialect (Pa' Kaber), is premature. Moreover, because of the many areal features along the Krayan that cut across secure genetic lines (see the following subsections), this trait's diffusion is best attributed to areal influence unless more evidence for linking these dialects can be found.

11.5.2 PRONOUNS PART I: CASES AND USAGE

A second parameter of variation in the Dayic languages is the number of pronoun cases and their usage. A conservative Dayic language such as Kemaloh Lun Bawang may have as many as three sets of pronouns to indicate grammatical functions in a voice-marked transitive clause. These correspond to the sets labeled "pivot," "genitive," and "oblique'' given in tables 4.2, 4.3, and 4.4 in §4.3.1 above. For cross-dialectal comparison, however, these terms are less appropriate, and therefore here replaced by "full," "clitic," and "oblique," respectively. The Kemaloh singular pronouns in all three of these forms are given again in table 11.15. The other Lun Bawang/Lundayeh dialects also have all three forms, with two differences: (1) the oblique forms are marked with *ke-* rather than *ne-*, and (2) the voiced aspirate in the 1SG oblique has undergone a phonological change yielding, e.g., *kyuh* in Adang.

TABLE 11.15. KEMALOH SINGULAR PRONOUN CASES

	Full	Clitic	Oblique
1SG	uih	=kuh	negkuh
2SG	iko	=muh	nemuh
3SG	ieh	=neh	neneh

Pronominal usage varies across Dayic dialects in three significant ways: in the numbers of forms present, in the marking of human non-pivot patients, and in the lexical forms themselves. The first two parameters of variation, being closely connected, are discussed immediately below; the third is deferred to the next subsection.

Lun Bawang, by far the most morphosyntactically conservative of the Dayic languages, is the only one, not only among the Dayic languages, but all of Borneo outside Sabah, to retain these three

distinct pronoun sets.[29] In all other attested Dayic dialects except for Sa'ban, the oblique series has vanished,[30] its functions being taken over by the full set, preceded by a proclitic or preposition if functioning as an actual oblique. In Bario Kelabit alone, the oblique-marking preposition may optionally be followed by a clitic pronoun instead of a full form.

Secondly, most dialects have also lost or are in the process of losing the clitic forms, which are likewise ceding their functions to the full forms. The clitics are retained only in Lun Bawang, Kelabit, and Southern Lengilu', and, except for in some of the most conservative Lun Bawang dialects, they have become more or less interchangeable with the full forms.

Thirdly, and closely connected with the first point, the marking of human non-pivot patients has changed. Lun Bawang retains the inherited practice of marking them with oblique pronominal forms. While Sa'ban retains the oblique *forms*, it does not retain this *function*, using the full series to mark patients and restricting the oblique series to true obliques (Clayre 1992). Wherever the oblique series has been lost, non-pivot patients are now marked with the plain full series, while true obliques are marked with the full series preceded by either a preposition or oblique proclitic.[31]

These parameters of variation are illustrated in the examples below. (163) illustrates both marking of true obliques (bolded) and the marking of non-pivot agents (italicized). (164) shows the variation in marking of non-pivot patients (bolded). Following, figure 11.5 illustrates the geographic extent (within Dayic) of pronominal loss.[32,33]

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[29]By contrast, retention of all three is the rule rather than the exception in the languages of Sabah, representing the other two branches of North Borneo (Lobel 2016).

[30]The forms, marked in *ke-*, are in fact still present in Bario Kelabit, but their sole function appears to be as quotatives quite like those described in §4.3.1, *supra* (Hemmings 2016). This fact, however, is irrelevant to the point, which concerns arguments in transitive clauses. Tring is excluded from this discussion due to insufficient data.

[31]Clayre (2005) records the possibility of using a clitic form as a non-pivot patient in Long Mutan (S. Lengilu'), which would be flagrantly ungrammatical in any other attested dialect.

[32](163e) has been adapted in accordance with Hemmings' (2016:329) statement: "Wherever [the clitic form] is found, [the full form] is also possible as an alternative. Thus, [the full form] can alternate with [the clitic form] for [non-pivot agents] in [patient] voice.

[33]The reader is cautioned against placing too much importance on the word order contrast between Kelabit in (164e)

(163) a. *Kemaloh Lun Bawang: retains oblique and clitics*

K<in>irim=*kuh*   surat **neneh**.
<PFV.PV>send=1SG.GEN letter **3SG.OBL**
'I sent a letter **to him**.'

b. *Northern Ba' Lun Bawang: retains oblique, clitics optional*

K<in>irim   *uih/=kuh* surat **keneh**.
<PFV.PV>send 1SG   letter **3SG.OBL**
'I sent a letter **to him**.'

c. *Southern Ba': no oblique or clitic*

In-irim   *wéh* surat **ki**   **ieh**.
PFV.PV-send 1SG letter **OBL** **3SG**
'I sent a letter **to him**.'

d. *Southern Lengilu' (Long Layu'): oblique lost, clitic marginal*

Irim *ak(/=kuh)* surat **ko'** **ieh**.
send 1SG   letter **OBL** **3SG**
'I sent a letter **to him**.'

e. *Bario Kelabit: oblique lost, clitic optional (Hemmings 2016:160)*

B<i>lih   *uih/=kuh*   nuba' **nge=neh**
<PFV.PV> =1SG.GEN/1SG rice   **to=3SG.GEN**
'I bought rice for her.'

(164) a. *Kemaloh Lun Bawang: non-pivot patient as oblique*

N-(s)ier **negkuh**   ieh.
AV-see **1SG.OBL** 3SG.PVT
'He sees **me**.'

b. *Northern Ba' Lun Bawang: non-pivot patient as oblique*

N-(s)ier **kekuh**   ieh.
AV-see **1SG.OBL** 3SG
'He sees **me**.'

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and the other dialects. Pivot-initial word-order is frequently produced in response to a prompt from an SVO language such as English, likely used to elicit the Kelabit example, even when, as Hemmings (2016:449) notes, speakers judge verb-initial order most natural if no pragmatically conditioning context is given. Examples from the remaining dialects were elicited using Kemaloh Lun Bawang as the contact language, which, being verb-initial, avoided priming a pivot-initial response.

c. *Southern Ba': non-pivot patient takes full form*

M-ier **wéh** ieh.
AV-see **1SG** 3SG
'He sees **me**.'

d. *Southern Lengilu' (Long Layu'): non-pivot patient takes full form*

N-i'er **ak** ieh.
AV-see **1SG** 3SG
'He sees **me**.'

e. *Bario Kelabit: non-pivot patient takes full form (Hemmings 2016:329)*

Ieh n-(s)i'er **uih**.
3SG AV-see   1SG
'He sees me.'

FIGURE 11.5. DAYIC PRONOUN CASE ISOGLOSS
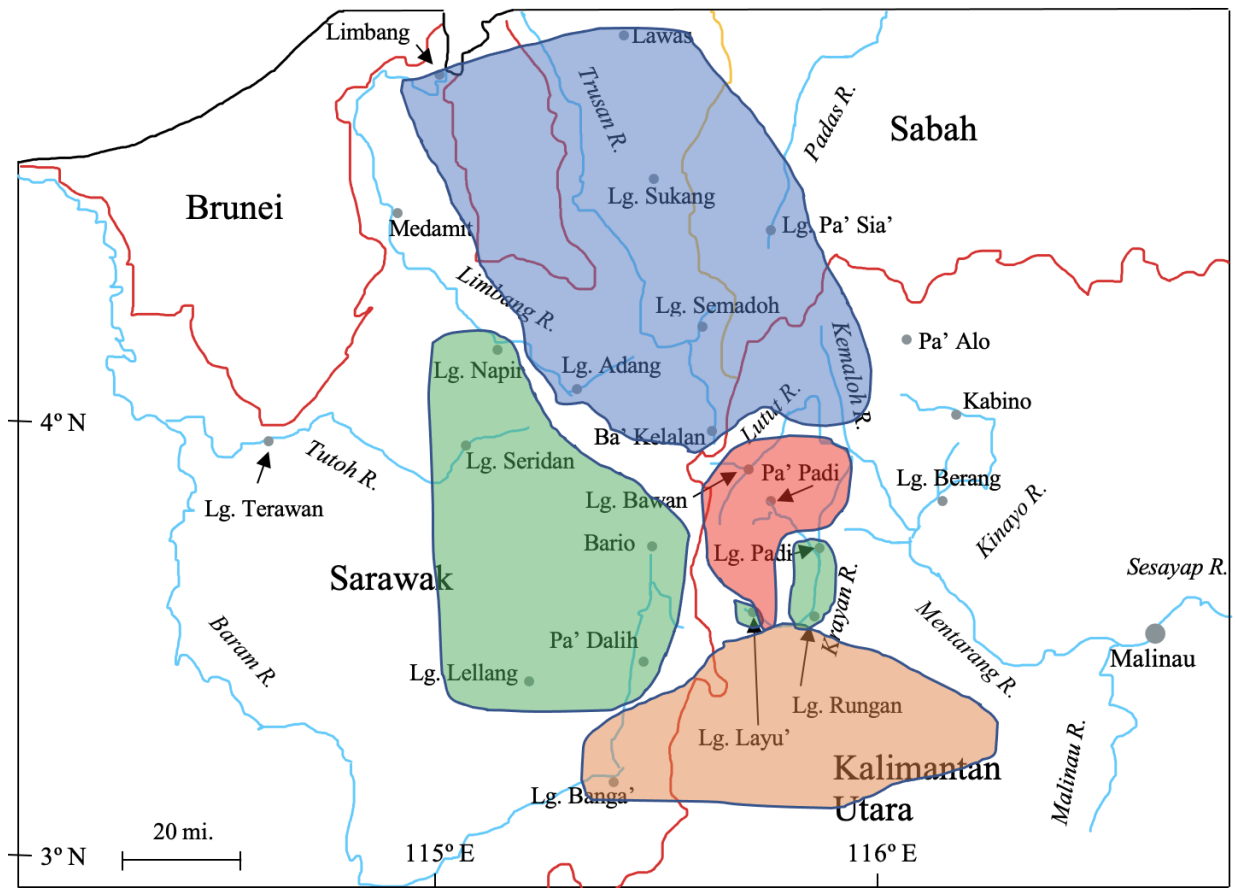
Key: All three pronoun sets; no clitics; no obliques; no clitics or obliques

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Interesting though this variation may be, it is not reliable evidence for establishing genetic links. Firstly, these innovations are not exclusively shared by any set of dialects. Some have lost the obliques while retaining the clitics (Kelabit, S. Lengilu'), others have lost the clitics while retaining the obliques (Sa'ban (Clayre 1972)), and yet others have lost both (S. Ba', N. Lengilu', Ulu Padi, Ulu Krayan). Secondly, the loss of these pronominal forms on Borneo is the rule, not the exception, possibly an extra-Sabahan areal feature. Of all the languages of Borneo outside Sabah in the far north, only two languages retain the three-way case distinction, and only one, Lun Bawang, is still spoken on Borneo. The other, providing circumstantial evidence for the effect of areal influence, is Malagasy, which left Borneo many centuries ago, likely before the collapse of extra-Sabahan pronoun systems, and (consequently?) still retains its case distinctions (cf. Rasoloson and Rubino 2005). Because these innovations are so widespread, cutting across genetic lines, they are useless for subgrouping. However, precisely *because* of their near ubiquity, the conservatism of Lun Bawang, and especially the Kemaloh dialect, appears all the more peculiar.

11.5.3 PRONOUNS PART II: LEXICAL DIFFERENCES

In addition to the number of cases and their usage, the lexical forms themselves vary among languages. Two sets of pronouns are found; one, here called the Northwest Dayic type, is (more or less) native, and the other, here called the Southeast Dayic type, is, per Blust (1999), heavily borrowed from nearby Kayanic languages. Rough protoforms for the two sets are given in table 11.16 (adapted from Clayre (2005), substituting some Kayanic protoforms from Smith (2017)):[34]

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[34]The reconstruction *ikaw is presumed based on the absence of mid-vowels elsewhere in Proto-Dayic. However, no modern Dayic dialect thus far attested retains the diphthong, as every dialect unaffected by the first monophthongization has the borrowed set of pronouns instead. Dual and paucal forms are omitted, since they have not been collected from enough dialects for a substantial comparison.

TABLE 11.16. TWO SETS OF DAYIC PRONOUNS

	NW Dayic type	SE Dayic type
1SG	*uih (< **akui)	*ak
2SG	*ikaw	*ikeh (< **ika)
3SG	*ieh	*ieh
1PL.INCL	*tauh	*itam
1PL.EXCL	*kamih	*kami
2PL	*muyuh	*ikam or *mé
3PL	*ideh	*deh

The Southeast Dayic pronouns, though heavily borrowed from Kayanic languages, are not necessarily exclusively so. The first plural exclusive forms in both Proto-Dayic (*kamih) and Proto-Kayanic (*kami) are similar enough that borrowing can be neither proven nor discounted. The third singular matches the form for Proto-Dayic more exactly, while the forms in most Kayanic languages end with a glottal stop, which ought to have been preserved if borrowed. The third-plural, too, is much more easily analyzed as reflecting Proto-Dayic *ideh than any Kayanic form.

On the other hand, although the Northwest Dayic pronouns are mostly native, they are not entirely so, either. At least the first-person singular *uih* appears to be borrowed, as it reflects the distinctly Proto-Kayanic *aku-i (Smith 2017). This borrowing must be quite ancient, at a pre-Proto-Dayic time depth, as it reflects the change of intervocalic *k to glottal stop discussed in §11.2.3.4 above. The borrowed *akui thereby became *a'ui, then losing the leading antepenultimate *a- (a loss ubiquitous in Dayic) and adding *-h* after word-final vowels (likewise ubiquitous) to give proto-Dayic *uih.[35] Because of its antiquity, it was probably present in the pre-history of the languages that now reflect *ak.

As the labels "Northwest" and "Southeast" imply, the distribution of these pronoun sets is geographically predictable. Languages belonging to the Southeast Dayic type include Southern Lengilu', all Greater Sa'ban dialects, and (Clayre (2005) adds) some of the Ulu Krayan dialects (Long Rungan, Pa' Kaber). All of these dialects either are or once were found along the Krayan

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[35]Glottal stop is not phonemic in word-initial position.

River.[36] Quite nearly all other Dayic languages fit neatly into the Northwest Dayic type, including Lun Bawang, Southern Ba', Kelabit, Northern Lengilu', Ulu Padi, Ba' Liku, and Balait Tring (Ray 1913). Also of the Northern Dayic type, a slight exception to the neat geographic boundary, are three Ulu Krayan dialects, Long Budung, Pa' Tera, and Pa' Sing (Clayre 2005). The Tring dialects other than Balait show a mixture of both types; all three of Long Terawan, Tabun, and "Trusan", while closer to the NW Dayic type, reflect *ikam in the second-person plural. (Ray 1913) also attests both *ak and *uih in the first-person singular for Tabun and Trusan, though he implies (via use of parentheses) that the former is normal. Figure 11.6 illustrates the geographic boundaries of the isogloss.

FIGURE 11.6. NORTHWEST/SOUTHEAST DAYIC PRONOUN ISOGLOSS

Key: NW Dayic type (*uih, *ikaw); SE Dayic type (*ak, *ikeh); mixed

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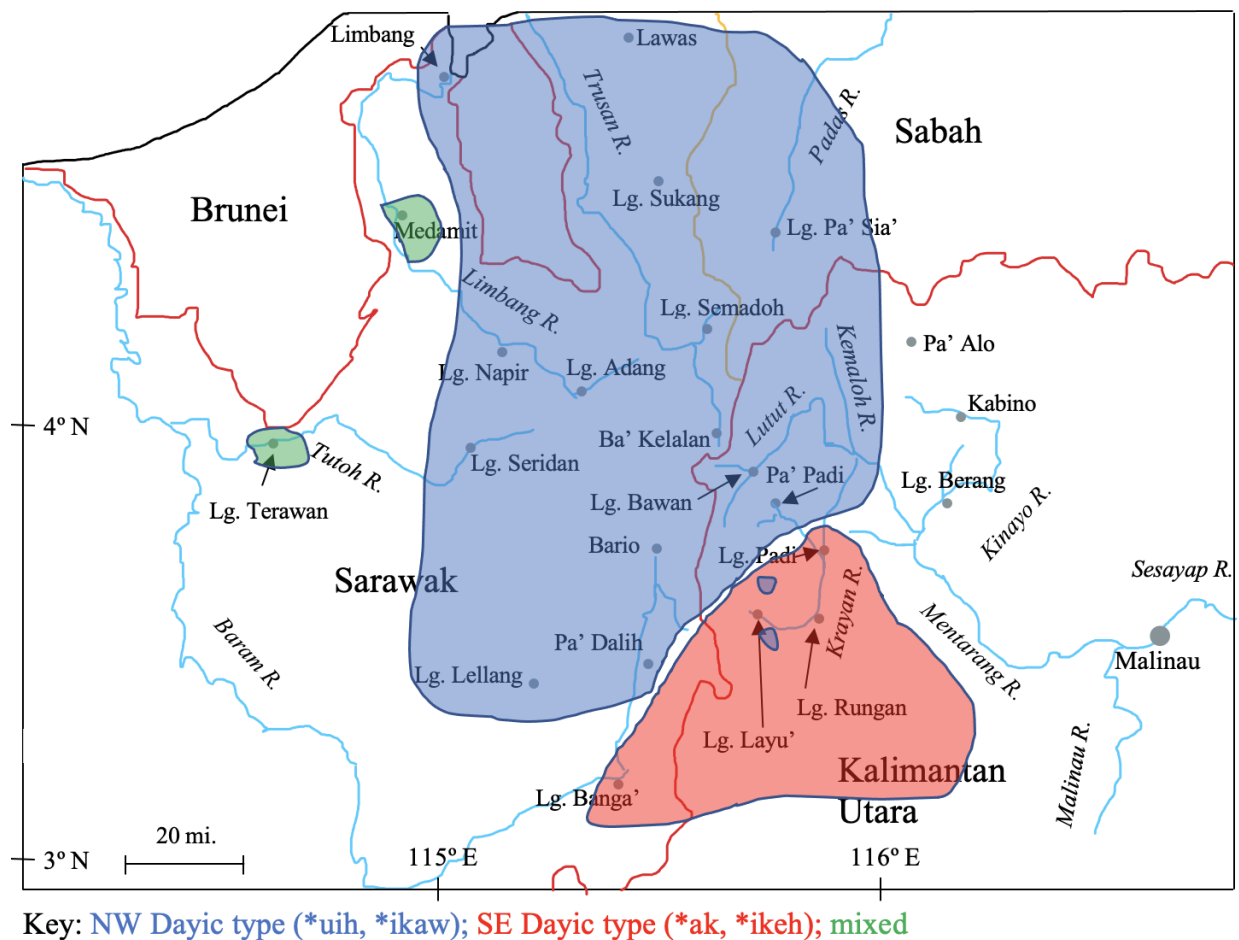
[36]*Contra* Clayre (2005), the author recorded NW Dayic pronouns for Long Rungan, but this discrepancy can probably be explained by the growing influence of Kemaloh Lun Bawang as a *lingua franca* in the Krayan-Lutut basin.

11.5.4 First Monophthongization

The unconditioned monophthongization of Proto-Dayic *aw and *ay to /o/ and /é/, respectively, is found in far more Dayic dialects than Kemaloh Lun Bawang alone, for which it was discussed in §11.3.1 above. For comparison's sake, a few examples are given for selected dialects in table 11.17, and the isogloss is illustrated geographically in figure 11.7.

TABLE 11.17. DAYIC MONOPHTHONGIZATION

PDAY	Lg. Layu'	Lg. Banga'	Pa' Padi	Tring	Kelabit	Kemaloh	Gloss
*edʰaw	saw	siew	so	co	edto	eco	'day'
*payaw	payaw	payaew	pajo	—	payo	payo	'deer'
*matay	matay	mataey	até	maté	maté	maté	'die'
*paday	paday	—	padé	—	padé	padé	'rice plant'

FIGURE 11.7. FIRST MONOPHTHONGIZATION ISOGLOSS
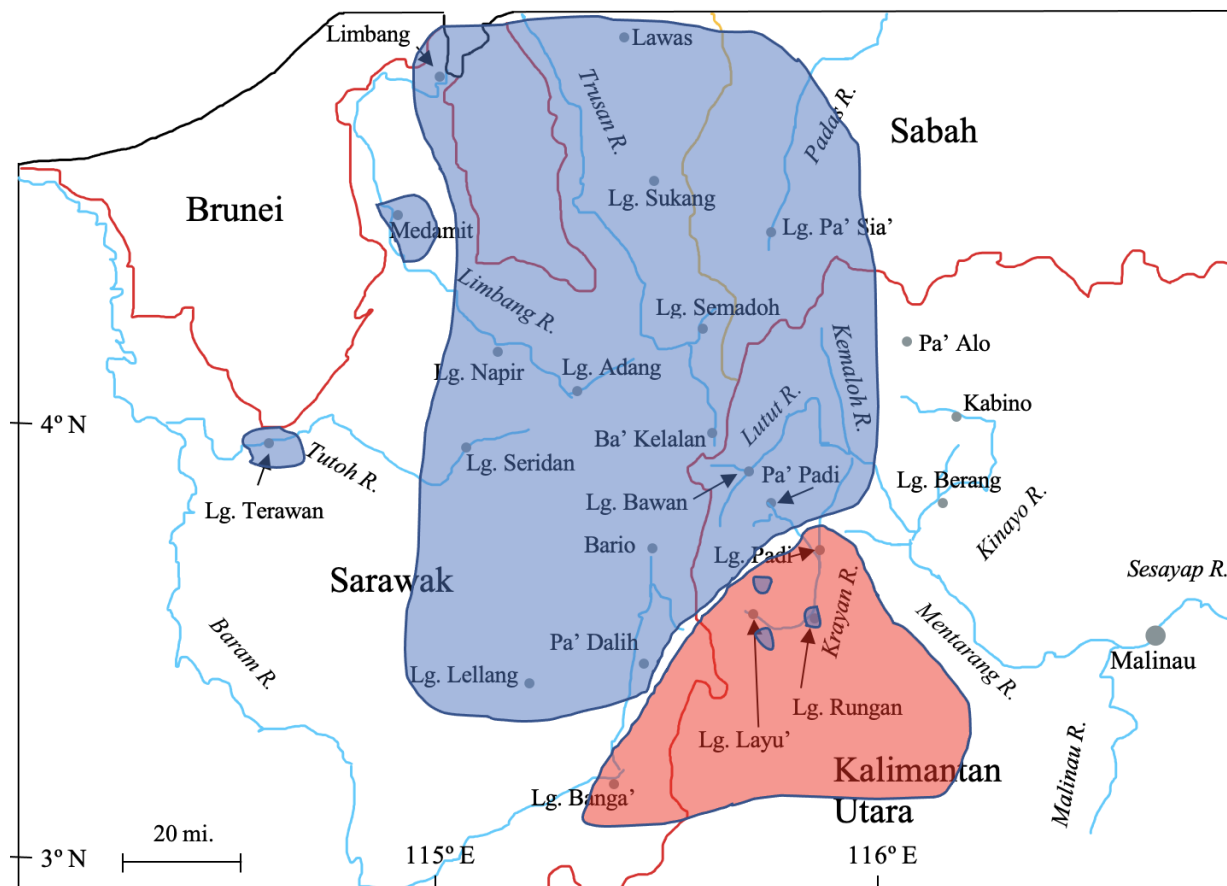
Key: 1st monophthongization present; 1st monophthongization absent

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While the first monophthongization is also a poor criterion for subgrouping, as it is a common sound change that cuts across established genetic lines (i.e., affected Southern but not Northern Lengilu'), its distribution is remarkable from an areal standpoint: the maps in figures 11.6 and 11.7 are nearly identical. Nearly every dialect affected by the first monophthongization (Lun Bawang, Southern Ba', Kelabit, Tring, Ulu Padi, Ba' Liku, N. Lengilu', and some Ulu Krayan) also has Northwest Dayic-type pronouns. Every dialect unaffected by the first monophthongization (Greater Sa'ban, S. Lengilu', some Ulu Krayan) also has the Southeast Dayic-type pronouns heavily borrowed from Kayanic languages. The only exceptions are some Tring dialects, whose pronoun sets are mixed but align more closely with the NW Dayic type, and possibly Long Rungan due to conflicting reports on its pronouns. The near-perfect correlation hints even more strongly at areal influence in the Krayan-Lutut basin, especially along the Krayan river.

11.5.5 INTERVOCALIC GLOTTAL STOP

Like the first monophthongization, the loss of the intervocalic glottal stop, discussed in §11.3.2 for Kemaloh, affected a handful of other dialects. In this case, however, the number is much smaller and includes, in addition to Kemaloh, the Adang, Ruab, and Northern and Southern Ba' dialects.[37] Selected lexemes are shown in table 11.18.

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[37]To this list may probably be added Long Berang, which has generally not been discussed separately due to lack of data. Ricky Ganang (p.c. [17 November 2020]) writes that it is "the same as" the Kemaloh dialect and listed just two phonological differences: (a) an unconditioned merger of *r with /l/ (e.g. *telul* 'egg' for Kemaloh's *terur*), and (b) a change of nonfinal *p to /h/ probably by way of the intermediate *f found in many Kemaloh-speaking regions. In further support of a close link, when writing of Kelabit and "Ulu Kerayan," Southwell (1949:106–7) notes "doubled" vowels, seemingly a reference to the retention of the Proto-Dayic intervocalic glottal stop. No such note is made for any dialect that has lost the intervocalic glottal stop, so the absence of any such mention for Long Berang implies that it, too, has undergone the loss.

TABLE 11.18. LOSS OF INTERVOCALIC GLOTTAL STOP

Proto-Dayic	Adang	N. Ba'	S. Ba'	Kemaloh	Ruab	Gloss
*ta'ut	taut	taut	taut	tot	taut	'fear'
*da'un	daun	raun	daun	don	daun	'leaf'
*na'it	ngi-nait	ngi-nait	—	ngi-nét	—	'wait'
*pa'it	pait	pait	pait	pét	pait	'bitter'

Unlike the characteristics in the previous subsections, which are easily characterized as areal, the nature of this innovation is less apparent. On the one hand, the dialects affected are indeed more or less geographically contiguous, spanning the Lutut River and the other northern tributaries of the Mentarang, and having expanded northward across the Malaysian border. The geographic area covered by this loss, disproportionately large for the number of dialects actually affected, is shown in the map in figure 11.8.

FIGURE 11.8. INTERVOCALIC GLOTTAL STOP ISOGLOSS
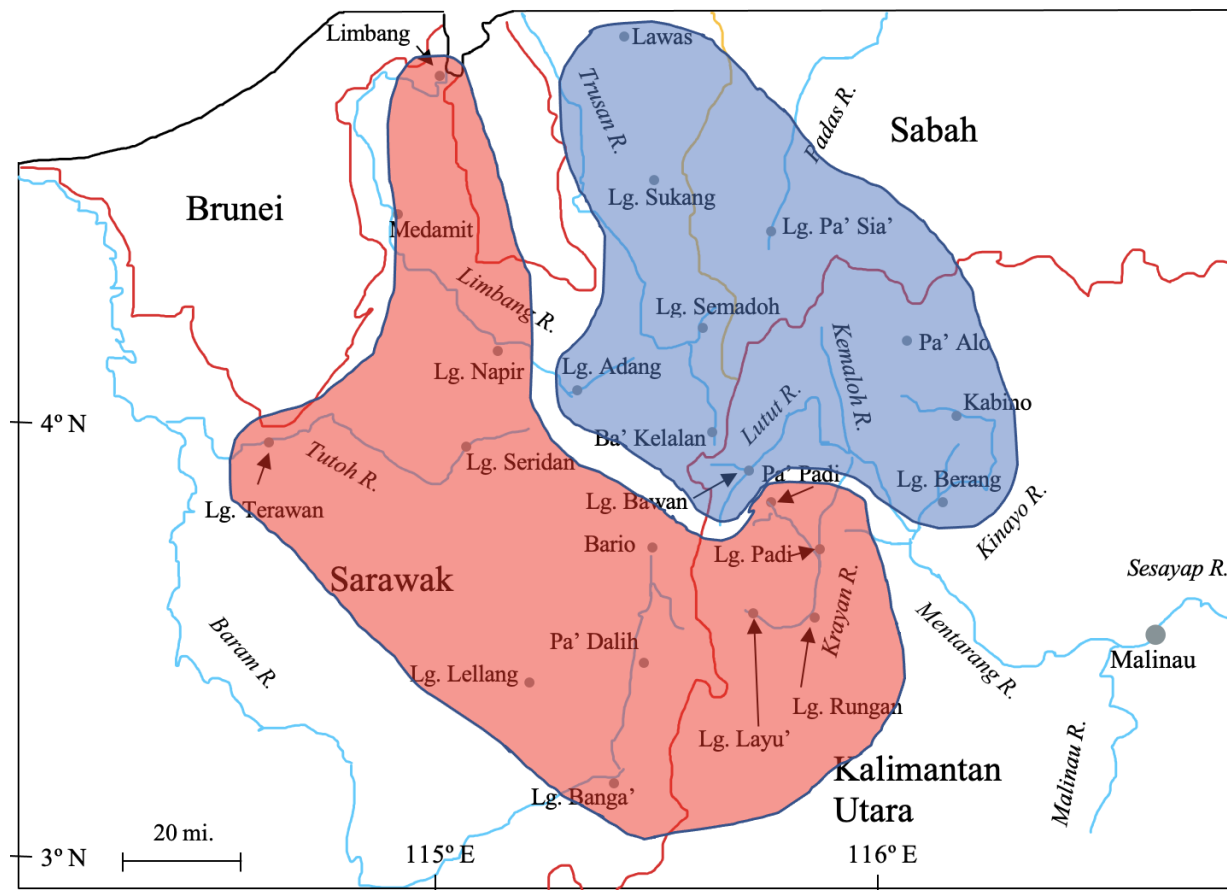
Key: Intervocalic glottal stop lost; intervocalic glottal stop retained

On the other hand, good reason exists to believe that these dialects, or some of them, at least may be closely related. Firstly, oral and recorded histories of migration and settlement tie Adang, Ruab, and Northern Ba' together. Agong Taie (p.c. [10 June 2018]) reports that the earliest settlers of Long Adang likely came from the Ba' Kelalan area, home of the Northern Ba' dialect. Tuie (1995) implies a close connection between Northern Ba' and Ruab in stating that the first wave of migration into Sarawak settled the upper Kelalan and Trusan Rivers.[38] Such a close connection, if true, would hardly be surprising, given the high degree of similarity between the Adang, Ruab, and Northern Ba' dialects, which differ only by minor sound changes. Moreover, these three dialects, as well as Kemaloh and Long Berang, are the ones whose speakers commonly use the name *Lun Bawang* or *Lundayeh*, which likewise implies a close historical connection.[39]

However, the loss of intervocalic glottal stop also affected the rather more innovative Southern Ba' dialect, whose speakers, *Lun Ba'*, regard themselves as ethnically and linguistically distinct from the speakers of these other dialects (Sellato 2009). Indeed, the difference is pronounced enough that both Clayre (2005) and Sellato (2009) link the *Lun Ba'* with the Kelabit rather than with the Lun Bawang. Because of these confounding factors, a low-quality innovation such as loss of an intervocalic glottal stop is inadequate evidence for subgrouping, as contact and parallel independent development remain significant possibilities.

11.5.6 ACTOR VOICE MARKING

The use of homorganic nasal substitution for actor voice marking, described in §§3.3.1, 4.4.2.1, is present in a large majority of Dayic languages and uncontroversially reconstructible to Proto-Dayic. A few dialects, however, have altered their means of AV-marking in remarkable ways, and at least three other AV patterns are now found among the Dayic languages. Among the Ulu Padi dialects, phonological erosion from the left has stripped away word-initial nasals, leaving no trace of an AV morpheme. A handful of dialects, among them Southern Ba', as well as Pa' Kaber and

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[38]Cf. §2.3. Though the upper Trusan is today Kemaloh-speaking territory, its first inhabitants were the ancestors of today's *Ruab*-speaking *Lun Lod*, who moved downriver because of the expansion of the Kemaloh people.

[39]Cf. §11.6 for a discussion of further evidence that might connect these dialects.

Pa' Tera of the Ulu Krayan (Clayre 2005), replace root-initial obstruents with *m-* and otherwise prefix *me-*. Sa'ban proper is *sui generis*, using a prefix *N-* like the nasal-substituting dialects, but it only assimilates to obstruent onsets without replacing them, and its "elsewhere" value is *m-* rather than the *ng-* found in most dialects (Clayre 2005). It may be in origin derived from the *m-* type but altered due to Sa'ban's distinctive phonological changes. Some sample verbs are shown for comparison in table 11.19,[40] followed by a geographic distribution of the patterns in figure 11.9.

TABLE 11.19. COMPARISON OF SELECTED AV-MARKED VERBS

PDAY Root	PDAY AV	Kemaloh AV	S. Ba' AV	Ulu Padi AV	Sa'ban AV	Gloss
*penaw	*menaw	meno	meno	no	nnaew	'steal'
*belih	*melih	melih	melih	lih	mley	'buy'
*teb^{h}ek	*neb^{h}ek	nebpek	mefek	fek	mpek	'stab'
*dalan	*nalan	nalan	malan	alan	malan	'walk'
*si'er	*ni'er	nier	mier	i'er	nyel	'see'
*keteb	*ngeteb	ngeteb	meteb	teb	ntep	'cut'
*irup	*ngirup	ngirup	mirup	irup	mérop	'drink'

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[40]Sources of non-original data: Sa'ban (Lg. Banga') from Blust (1999), Southern Ba' largely from Smith (2017).

FIGURE 11.9. DISTRIBUTION OF AV-MARKING PATTERNS

Key: AV with homorganic nasal substitution; Sa'ban (*sui generis*); AV in *m-*; no AV morpheme
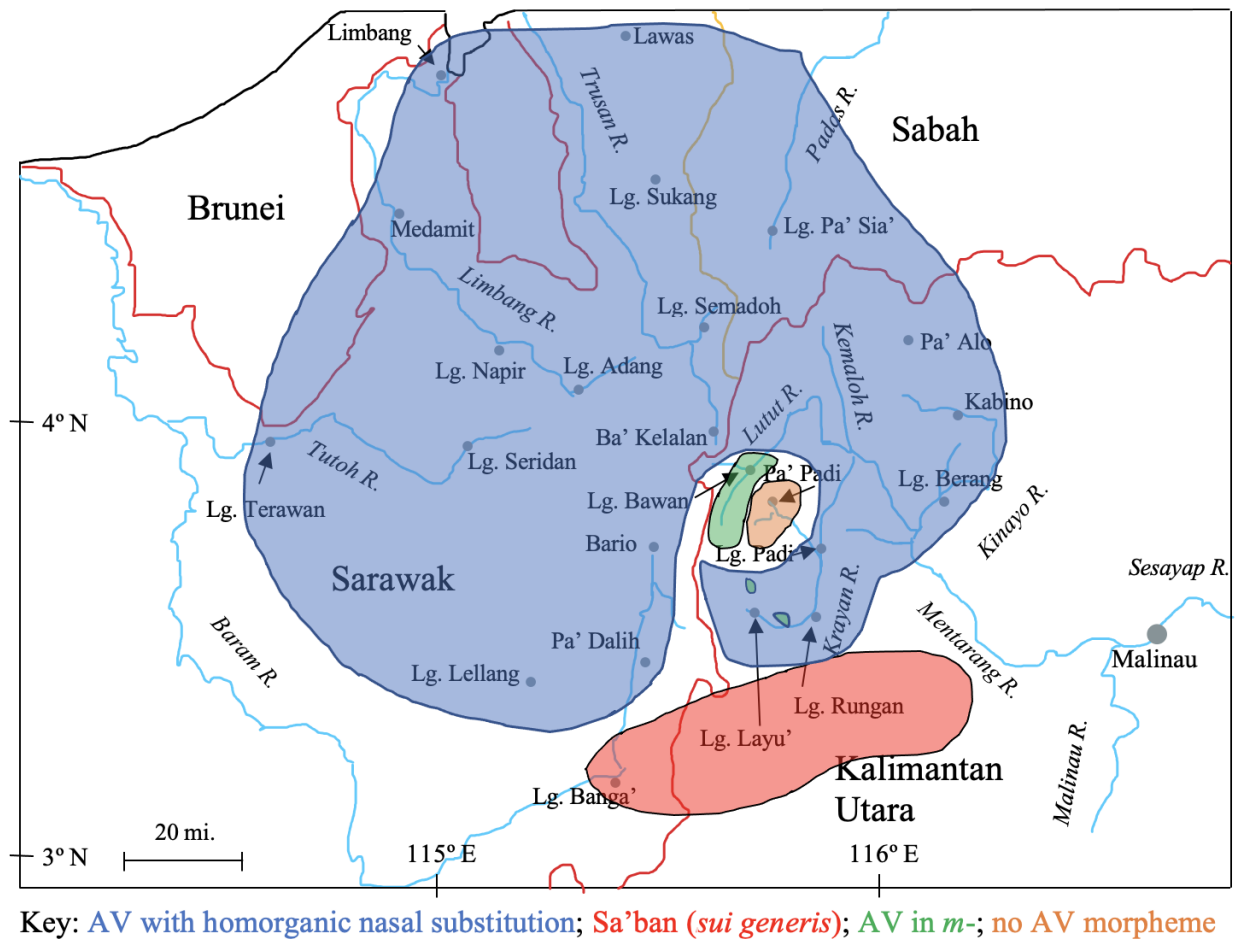
What is particularly interesting about the distribution of the innovative *m*-marked form is that it cuts across every isogloss heretofore discussed in this section. The Ulu Krayan dialects affected, Pa' Kaber and Pa' Tera, differ from one another in that Pa' Tera has, like Southern Ba', Northwest Dayic-type pronouns and the first monophthongization, while Pa' Kaber has neither. Both the Ulu Krayan dialects retain the intervocalic glottal stop while Southern Ba' has lost it. At first glance, therefore, this shared innovation may appear to be unlikely to be due to areal influence or contact and thus a good criterion for subgrouping. However, taken together with the innovations in the next subsection, the leveling of nasal substitution in favor of *m-* is evidently part of a larger and more widespread process of restructuring the verbal system. Because this process is attested in various stages of development throughout the Dayic languages, and especially in the Krayan-Lutut basin, parallel independent development, rather than common inheritance, is the most likely explanation.

11.5.7 PERFECTIVE PATIENT VOICE MARKING

Marking of the perfective patient voice by infixation as described for the Kemaloh dialect in §4.4.2.2 is likewise found in other conservative dialects and is reconstructible to Proto-Dayic. Its retention intact, however, is relatively uncommon. Most Dayic dialects, particularly in the Krayan-Lutut basin, are engaged in or have undergone a major remodeling of perfective PV marking. Although with several local variants, this restructuring generally tends toward the elimination of onset consonants and the conversion of the infix *<in> into a prefix, if not its total loss.

The basic stages in this process appear to be as follows:[41] The first step is the loss of verb-initial velar obstruents. A loss this specific is made possible by an ambiguity inherent in homorganic nasal substitution: any AV verb of the shape, e.g., *ngVCVC* could be derived from a root of the form *kVCVC*, *gVCVC*, or *VCVC*; its corresponding perfective PV could then be *k<in>VCVC*, *g<in>VCVC*, or *<in>VCVC*. This ambiguity allows for a reanalysis of any such AV form as being derived from a vowel-initial root, with a consequent stripping away of velar onsets from these verb forms. Bario Kelabit represents this stage of development, with *k<in>awil 'held with the leg' optionally becoming *(i)n-awil* and *g<in>atel 'caused to itch' becoming *(i)n-atel* (Tuan and Smith forthcoming). The data in Clayre (2005) suggest that Long Mutan (Southern Lengilu') is also at this stage, where only velar-initial verbs are affected.

The second stage is a generalization of the loss of verbal onset consonants from velars alone to any place of articulation. Southern Ba' illustrates this stage. In addition to having, e.g., *étep* 'bit, stung' from earlier *kétep (< **kitep < **k<in>etep) and *in-irim* 'sent' from earlier *k<in>irim, as in the first phase, it also has *éno* 'stolen' from *p<é>no (< **pino < **p<in>eno), *in-ibu* 'planted' from *t<in>ibu, and *in-ier* 'seen' from *s<in>ier. That this loss of onsets is due to a morphological, rather than phonological, process, is evident from the fact that *only* verb forms are affected, in sharp contrast to the Ulu Padi dialects, where the loss of onsets is systematic. At this stage, too, the leveling of AV marking in favor of *m-* (§11.5.6), as has happened in Southern Ba' and

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[41]Clayre (2005) offers a phonological explanation, but, as the changes involved are not systematic, applying only to verbs, it does not seem adequate. This subsection proposes an alternative account based on morphological reanalysis.

two Ulu Krayan dialects, becomes possible, though many dialects have passed this stage without doing so. With this loss of verb onsets, the correct nasal onset for an AV form can no longer be predicted, because of which these three dialects have generalized the *m-* allomorph. Given the clear motivation for this generalization, the sharing of this innovation by the three dialects is more likely a case of drift than common inheritance.

The third and final stage is the reduction of the infix-turned-prefix from the form *in-* to *i-*, which then becomes a phonetic glide before the following vowel. Clayre (2005) explains this change as phonological, a deletion of the /n/. An alternative possibility is that it is a further morphological leveling. At stage two, after the loss of onsets, the perfective PV morpheme has two allomorphs, an *i-* that replaces an initial schwa, and *in-* before any other initial vowel. The change may be a leveling in favor of the former allomorph, so that perfective PV formation can now be described as the prefixation of *i-*, after which an immediately following schwa is lost. The end result is found in a sizeable handful of dialects, including Ba' Liku, Binuang (N. Lengilu'), Long Layu' (S. Lengilu'), Ulu Padi, and two Ulu Krayan dialects (Clayre 2005). The entire process of perfective PV restructuring is exemplified in table 11.20.[42]

TABLE 11.20. RESTRUCTURING OF PERFECTIVE PV

PDAY	Stage 1 Bario Kelabit	Stage 2 Southern Ba'	Stage 3 Long Layu'	Gloss
*kitep (< **k\<in\>etep)	(k)itep	étep	itep	'bit, stung'
*k\<in\>awil	(i)n-awil	én-awil	yawil	'held with leg'
*t\<in\>aru'	s\<en\>aru'	én-aru'	yaro'	'made, done'
*pinaw (< ** p\<in\>enaw)	pino	éno	inaw	'stolen'
*\<in\>alap	(i)n-alap	én-alap	yalap	'taken'

A geographic distribution of dialects that have reached these various stages is given in figure 11.10. Not enough is known about Tring to include it in the survey. Sa'ban appears to be a stage-3 language, but this claim may be contested on account of the dramatic phonological changes it has experienced.

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[42]Supplemented by data from Tuan and Smith (forthcoming) and Clayre (2005).

FIGURE 11.10. PERFECTIVE PATIENT VOICE ISOGLOSS

Key: No or other change; Stage 1; Stage 2; Stage 3
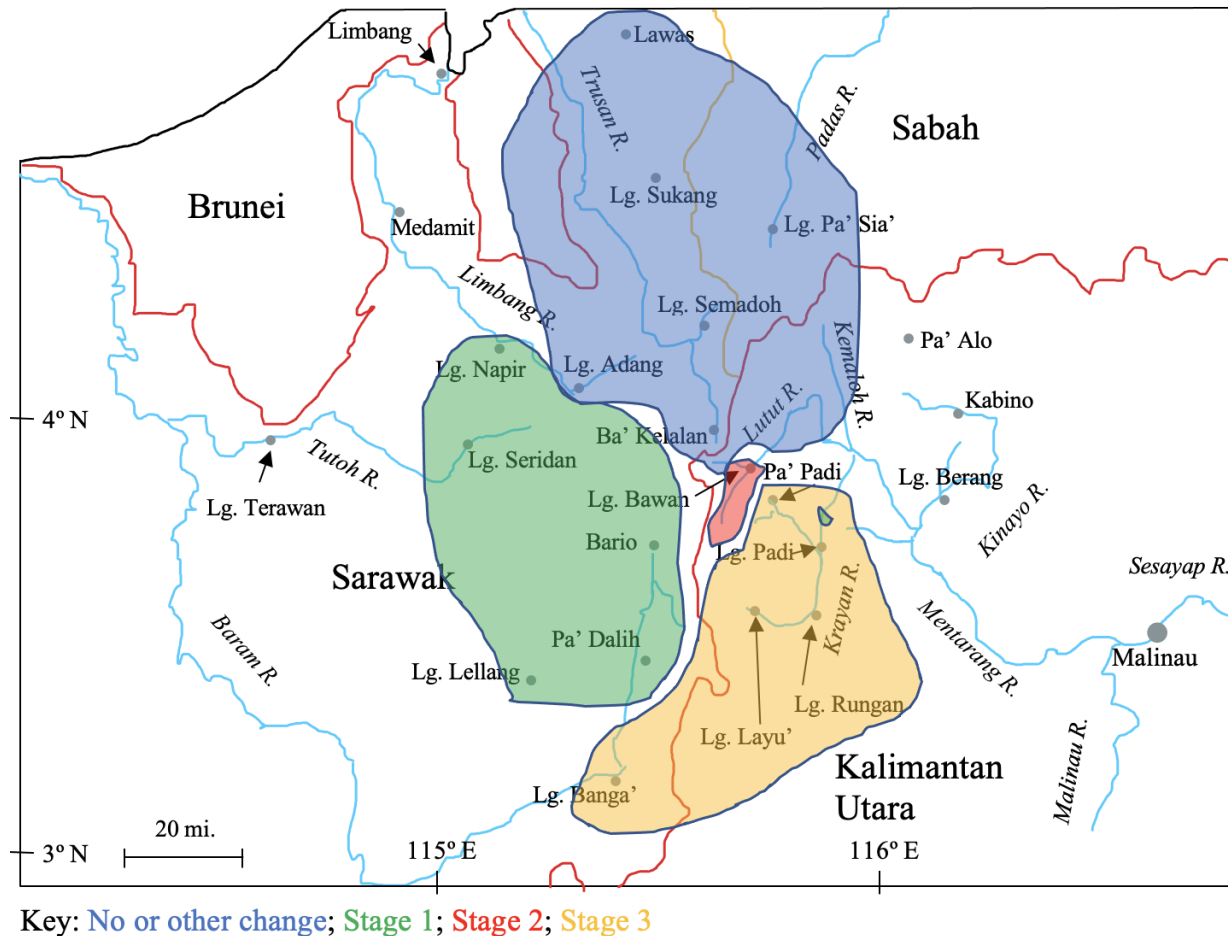
While the prospect of subgrouping on the basis of this trajectory of innovation may be appealing, one dialect casts serious doubt on any such possibility: Long Mutan Lengilu'. Though all other Lengilu' dialects for which adequate data have been collected are at stage 3, the fact that Long Mutan remains at stage 1 prohibits a reconstruction of Proto-Lengilu' that had advanced any further than the loss of velar onsets. The further developments in the remaining dialects must therefore have occurred independently of, or due to contact with, the many non-Lengilu' dialects that have advanced to stages 2 and 3. The fact that these developments have occurred either independently or due to contact makes attempting to use them as criteria for subgrouping highly questionable. Moreover, even though virtually every non-Lun Bawang dialect has reached at least stage 1, this fact, too, is poor evidence because an alternative explanation is readily available: infixes are difficult to learn, so the languages are under pressure to change so as to eliminate them.

The ambiguity inherent in AV verbs beginning in *ng-* offers a clear "path of least resistance" via the back-formations that strip away onsets and convert the infix into a prefix. That such a development should show multiple independent occurrences, then, is hardly wondrous. That such parallel developments should occur is not only possible, but in fact certain, as several Kelabit and Lun Bawang dialects have all independently reanalyzed away the infix *<in> via another method (the *ti-* discussed in §4.4.2.2), developing in parallel in response to the same pressure responsible for this restructuring of the perfective PV. Consequently, neither this innovation nor the closely connected change to AV in the previous subsection (§11.5.6, *supra*) offers any conclusions regarding genetic affiliation. It does, however, reinforce the curious observation that the most dramatic innovations have tended to occur on and around the Krayan River.

11.6. THE LUN BAWANG PROBLEM

At this juncture, the reader may justifiably ask why, in a work whose principal subject is the Lun Bawang language, that very language has been so scarcely mentioned in so many of the foregoing sections of this chapter except as a basis for comparison. That dearth of discussion, however, is precisely what is significant: for the most part, the Dayic languages are quite innovative, some even wildly so, and yet one of them, Lun Bawang, is, setting aside Malagasy, arguably the single most conservative Bornean language, both phonologically and especially morphosyntactically, anywhere outside Sabah. Lun Bawang alone retains three pronoun cases and marks non-pivot patients with the oblique form. Only Lun Bawang and Kelabit retain more than two voices (cf. Hemmings 2016). Only the Kemaloh dialect of the former and Bario and Long Lellang dialects of the latter retain the voiced aspirates more or less intact. The list could continue, but the foregoing subsections' illustrations of innovations to which Lun Bawang was not a party should be sufficient to demonstrate the language's conservatism, one which seems almost radical in its genetic and areal context.

This conservatism is precisely what frustrates the clear delineation of Lun Bawang as a coherent genetic unit within the Dayic languages, since any such group must be founded on exclusively shared innovations. Five Dayic dialects—Kemaloh, Long Berang, Northern Ba', Adang,

and Ruab—are typically called by this name, and their speakers identify themselves by the name Lun Bawang or Lundayeh. Some circumstantial evidence suggesting a common origin for Northern Ba', Adang, and Ruab was given in §11.5.5 above as part of the discussion of the loss of the intervocalic glottal stop, but it was insufficient to draw any firm conclusions. Nonetheless, if the dialects in question are carefully combed for evidence, a few further clues emerge to support a Lun Bawang group consisting of these dialects, but not beyond any reasonable doubt.

One such clue is a phonological idiosyncrasy found in the form of the first-person singular oblique and quotative pronouns, formed by cliticizing =*kuh* to a case-marking particle *ke-* or *ne-*. The result should be *kekuh* or *nekuh*, respectively. In fact, however, these dialects all display reflexes of the velar voiced aspirate *g^h where none should be found. For expected *$*nekuh$ '1SG.OBL' and *$*kekuh$ '1SG.QUOT', Kemaloh has *negkuh* and *kegkuh* for the oblique and quotative, respectively. Adang and Ruab, having reportedly lost the first syllable, have *kyuh* for both, where *ky* is the regular reflex of *g^h. In Northern Ba', where the velar voiced aspirate has simplified to a geminate /k/, the form for both is *kekkuh*. Regrettably, discerning with certainty whether this unexpected voiced aspirate is an innovation or a retention may be impossible, as the vast majority of Dayic dialects have lost these forms entirely, if indeed they ever had them. Forms found in Bario Kelabit, however, suggest that innovation is more likely, as it has the expected *kekuh* for its quotative and *ngekuh* (< *ngen=kuh) for its oblique, with no traces of a voiced aspirate's ever having been present.

A second shared innovation concerns reflexes of Proto-Dayic *na'it 'wait,' from root *ta'it*. Following the loss of the intervocalic glottal stop, in order to avoid a monosyllabic verb form, *nait* was reanalyzed as the root, and a new AV form *ngi-nait* was created for these dialects. (In Kemaloh, it is *nginét* due to the second monophthongization; see §11.3.4.) This remodeling is unambiguously an innovation, but one point of uncertainty remains: it may not be exclusive to these dialects. Southern Ba', like the other Lun Bawang dialects, lost the intervocalic glottal stop, but no reflex of this lexeme is found in the available data, with the list in Smith (2017) having *mudu'* for 'wait' instead. If a reflex of *na'it such as *menait* (as opposed to, e.g., *mait*) or similar

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could be found, it would justify including Southern Ba' within the umbrella of Lun Bawang. Even if so, Southern Ba' does not appear to share the other innovations seen in those other dialects, and any such relation would therefore necessarily be at a somewhat deeper time depth than that between the other dialects..

A last possible diagnostic is that all Lun Bawang dialects (certainly excluding Southern Ba', in this case), have jettisoned reflexes of Proto-Dayic *di'it 'small,' robustly attested elsewhere in the family, in favor of *isut* (often reduced to *sut*). This criterion must be handled carefully, as the presence of this lexeme itself is not necessarily an innovation. Although very sparsely attested, Blust and Trussel (2020) contains reflexes in four languages, Ngaju Dayak, Aklanon, Buginese, and Mandar, none of which is closely related to Lun Bawang and only the first of which is even found on Borneo. Reflexes of a doublet form *iut are also found in a handful of Kenyah varieties. The lexeme itself is therefore probably a retention, with only the fact of its having displaced *di'it being innovative. It is therefore very weak as evidence and merits consideration only because it coincides in its distribution with the other lines of weak evidence given in this section.

In the Krayan-Lutut basin, innovations are scattered every which way and point in different directions, thus making genetic connections almost indiscernable at times. Lun Bawang has the opposite problem: the dialects known by that name are so conservative that hardly any innovations that might be used to establish its existence as a coherent linguistic unit can be found. At least three hints in its favor do exist, allowing for a speculative supposition that Lun Bawang is indeed a genetic grouping. However, at this time the evidence is weak enough that the supposition is not remotely above being overturned should new data indicating the contrary emerge.

11.7. CONCLUSION: THE MUDDYING OF THE WATERS

While this cross-linguistic examination of the Dayic dialects has revealed many noteworthy trends and perhaps even some unique linguistic occurrences, its value for genetic classification has been, regrettably, quite limited. While it could confirm on linguistic grounds the existence of several groups bearing particular ethnic labels (e.g., Kelabit, Lun Bawang, Lengilu', Sa'ban), attempts to discern any intermediate relationships between these Dayic groups have been fraught

with trouble. Two reasons for the trouble are most evident: first, the dialects on the family's geographic periphery, especially to the north and west, tend to be so conservative that finding innovations to use for classification is extraordinarily difficult. Second, among the (sometimes wildly) innovative dialects of the upper Krayan River system, the innovations in question overlap in their distribution in such a way that those dialects simply cannot be divided based on exclusive sharing of those innovations.

The trouble in classification may have a third cause: the linguistic landscape of these highlands has changed drastically in recent decades. Within the Krayan-Lutut area, for example, the total number of settlements was 89 around the year 1970, presumably each with its own local dialect (Sellato 1997). A few years later, the government resettlement program was implemented (cf. §2.5), with the result that the current number of settlements in the area is about 27. This sharp reduction in the number of villages doubtless brought together speakers of differing dialects and caused significant mixing. Perhaps more important, though, is the longstanding practice of exogamy; while not strictly required, it has been the norm due to the historically small size of individual settlements, whose inhabitants, therefore, have usually been close relatives. Sellato's (1997:52) description of the consequences is worth quoting in full:

> In the context of the intense blending typical of the Kerayan [sic] District, each settlement displays, around a small original core community (the founder's family), an unstable heterogenous ethnolinguistic composition, with minimal integration of newcomers into pre-existing entities. These newcomers, more often than not, retain their own tongue and customs—which are always more or less compatible with their neighbors'—and their ethnic identity. Their offspring, in turn, may pick their choice or even brew their own idiosyncrasies, and up to half a dozen isolects, more or less recently developed and more or less equated with earlier ethnonyms, can be found in a single settlement. Ethnonyms and names of tongues become less and less relevant in the ongoing ethnolinguistic process and, nowadays, the district, principally in its eastern and southern regions, displays an ethnolinguistic quasi-continuum.

This description is a particularly apt characterization of Long Bawan and Long Layu', the two largest population centers of the Krayan-Lutut basin, where nearly all the author's original data on twelve dialects of the region were collected.

Sellato (1997) further observes that regional *linguæ francæ* have developed, especially in the Ba' areas. Indeed, even fieldwork done in 1995 (the basis for Clayre 2005) likely shows a greater degree of linguistic diversity than is the case today. Clayre, for example, recorded several *Lun Ba'* dialects from villages that no longer exist; the dialects themselves, if they still exist as distinct entities, probably will not for much longer.[43] According to informant Alex Balang of Long Bawan (p.c., 17 May 2019), the Lutut River and its tributaries today host just three major dialects: to the northwest of Long Bawan, up to Long Midang at the Malaysian border, the dialect is quite nearly the same as that spoken in Ba' Kelalan (Northern Ba' Lun Bawang). To the east of Long Bawan, all the way to the confluence of the Kemaloh, the dialect is more or less Kemaloh Lun Bawang. From Long Bawan on southward to Lembudud, while each village differs slightly, a single (Southern) *Lun Ba'* dialect, represented by the wordlists in Smith (2017) and the author's own notes from a speaker from Kuala Belawit, has come to predominate in what was once a more diverse region.

Given all this information, why clear genetic groups are difficult to find, especially along the Krayan River, is not difficult to understand. With frequent intermarriage, and more recently resettlement, dialect mixing has been unavoidable and is almost certainly responsible for the overlapping distribution of innovations in that area. Perhaps here is also found an implicit explanation for Lun Bawang's conservatism: it is found on the northern periphery of the Dayic-speaking regions of the highlands, and, until the resettlement program of the 1970s, when the settlements along the Kemaloh River were regrouped at and around Long Umung, it was altogether absent from the Krayan-Lutut basin. Its speakers must simply not have had the same degree of robust contact with other dialects as those living along those two rivers. Indeed, this fact is true not just of Lun Bawang, but also of Kelabit, probably the next most conservative Dayic language, found on the western periphery of Dayic-speaking territory and separated from the Krayan-Lutut basin by the ridge that today forms the international border.

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[43]For example, one of the texts in Padan and Ganang (2018:260–1), identified as being in a *Lun Ba'* dialect, while having a number of properties in common with Southern Ba', is still clearly distinct from it on both phonological and morphosyntactic grounds.

Perhaps, then, the concise answer to how the Lun Bawang language fits into its genetic and areal context is that it has preferred to hold that context at arm's length. Today, thanks to the prestige, widespread use, and *lingua franca* status of the Kemaloh dialect, its continued existence as a distinct entity is, for now, secure. For centuries, however, the dialect preserved its distinctness without enjoying any such status. Perhaps, speculatively, it is in part ultimately a geographical accident, Lun Bawang's existence on the periphery of Dayic-speaking territory, that has prevented it from sharing the fate of so many of its sisters: dissolving and being absorbed into a variegated and historically inscrutable ethnolinguistic continuum.

Appendices

APPENDIX A: LUN BAWANG ORAL LITERATURE

This appendix provides a small sample of the vast smorgasbord of varieties of traditional Lun Bawang oral literature. It is not intended to be exhaustive, as others (Tuie 1995; Langub 2014a,b; Padan and Ganang 2018; *inter alios*) have published substantial collections. Nor will this appendix be able to introduce even many of the major figures in Lun Bawang literature, such as Upai Semaring, Padan Liu' Burung and Ruran Ulung, or Ilan Igur and Labau Anam. Rather, its purpose is simply to expose the reader to a few types of texts, providing some analysis and commentary on their linguistic features and poetic conventions.

A.1. *Laba'*

This text is taken from Langub (2014a:182–6). It is the last act of the much longer story of *Tuk Pelanuk* the mouse-deer, which features the title character as a clever trickster figure. It belongs to the *laba'* (fairy tale) literary genre, normally in plain language, albeit, in some stories, with occasional—or frequent, if the narrator is particularly accomplished—poetic interpolations.[1] *Tuk Pelanuk* stories, like most *laba'*, are humorous in nature, no doubt in part due to the incongruity between the portrayal of *Tuk Pelanuk* and the real-life animal on which he is based. As Tom Harrisson, who noted similar stories among the Kelabit, observed:

> The mouse-deer…is really a very stupid animal indeed. Indeed, the hunter may so confuse a mouse-deer that the little fellow actually dashes into him, to be slashed with bush knife [sic]. It doubles the irony that the mouse-deer is hero in tales in which, by many subtleties, he deceives and out-matches animals far his superior in cunning and size—elephant and rhino, wild ox, crocodile, gibbon, porcupine, otter and hornbill (Harrisson 1959b:48).

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[1]The late Puruh Riung, of Long Semadoh, was one such accomplished narrator, locally renowned for her storytelling ability. She contributed several of the tales in the above-mentioned collections, especially those by Joseph Dawat Langub, which display a markedly greater use of rhyming iambic tetrameter than the other stories therein.

The Lun Bawang text of the story is unedited except where necessary for orthographic consistency. The English translation below is not overly literal, nor does it aim to be a fine-grained analysis of every linguistic detail. Because glossing every line would be impractical and detract from the flow of the story, linguistic commentary is interspersed throughout as appropriate.

The story takes place mainly along the the headwaters of a Bruneian River, the exact identity of which is unclear. Perhaps, for topographic reasons, the Temburong River may be a suitable candidate, but it is here rendered 'Brunei River' (*Pa' Pedian*) to mirror the use of *Bang Pedian* for 'Brunei.' Despite the fact that only a few hundred Lun Bawang live in present-day Brunei, it figures prominently in Lun Bawang literature, perhaps in part due to the fact that the river systems where most of Sarawak's Lun Bawang live today were once, at least nominally, under the control of the Sultan before their cession to the Rajahs Brooke of Sarawak. Tuie (1995) makes reference to longstanding trade relations with Brunei and to several Lun Bawang chiefs who had been awarded the title of *Orang Kaya-Kaya* by the Sultan.[2]

In this particular tale, Mouse-deer (*Tuk Pelanuk*) recalls that his grandfather once told him that a delicious type of fruit grew on the headwaters of the Brunei River. Bored and lonely, he goes to find it. At the Brunei headwaters, as he is feasting, he meets Crocodile (*Buayeh*), who makes him an offer: Crocodile wants to eat the food of land-dwellers, and, in exchange for Mouse-deer supplying him, he will provide Mouse-deer with fish from the river. The two strike up a friendship,

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[2]Multiple legends even connect the Bruneian monarchy to the Lun Bawang, the most important of which is that of the giant Upai Semaring, who eventually migrated to Brunei, where he changed his name and married a local woman, and their son became the Sultan Muhammad Shah (r. 1363–1402), the first Sultan of the reigning dynasty (Padan and Ganang 2018:81–7). Some other possibly legendary claims connecting the Lun Bawang to Brunei include that one Sultan long ago had a Lun Bawang mother, and that another hired Lun Bawang bodyguards—later assimilated as Brunei Malays—because he did not trust his own men (FN2:35). Nonetheless, Lun Bawang stories usually portray the Sultan as a villainous figure who seeks to kill the hero, as in *Sia' Kasan* (Langub 2014a:1ff), *iAwang Arem* (*ibid.*:78ff), and *Raja Pulau Bunga* (*ibid.*:125ff).

referring to each other as *eca'* 'brother.'[3] Their friendship continues in this manner for a long time, with Mouse-deer bringing Crocodile shoots from land plants every day and receiving fish in return.

One day, the pretense of friendship is shattered, when Crocodile, claiming that his mother is ill, convinces the reluctant Mouse-deer to ride on his back out into the middle of the river to help her. Once in the middle of the river, Crocodile finally tells the truth: that his mother wants to eat Mouse-deer's liver. Mouse-deer, enraged, dubs Crocodile "Abscessed Face" (*Busir Kiung*) and escapes by saying that he left his liver on the riverbank. Over the next few days, Crocodile repeatedly attempts to eat Mouse-deer himself, thwarted each time by the latter's wits. Frustrated, he takes to taunting Monkey (*Becuk*) instead, upsetting him greatly. Mouse-deer, annoyed at Monkey's wailing, finds him and, learning what happened, instructs him that if Crocodile insults him again, he should retaliate by calling him "Abscessed Face" (*Busir Kiung*).

Monkey follows Mouse-deer's instructions, to Crocodile's great consternation. Crocodile is so distraught by the insult that he swims up and down the Brunei River, crying, unable even to think of looking for food. One day, he wanders up onto the riverbank, weak and exhausted from hunger. As he is lying there, a strong wind causes a large tree trunk to fall right across his back. His cries for help go unheeded by the other animals, who all pass him by. Cow (*Sapi'*) then comes down to the river, wanting a drink, and finds Crocodile. After some initial misgivings, he aids Crocodile by first removing the log from his back and then carrying Crocodile to the river. Crocodile, however, faint from hunger, breaks his promise not to harm Cow and bites his thigh, determined to eat one side of it to replenish himself. Many other animals hear the commotion and gather at the scene, where, one-by-one hearing the two sides of the story—that Crocodile is very hungry, and that Cow helped him on the condition of not being harmed—, they find themselves unable to adjudicate the case. The story picks up here:

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[3]The term literally means 'brother-in-law.' More precisely, it means the brother or sister of the spouse of one's own brother or sister (i.e., two people are *dingeca'* if the brother of one is married to the sister of the other), but this translation is awkward in English.

Ali-ali lek maya' tengeb Padian ineh.

Along the banks of the Brunei River, silence reigned.

"Bura' peh ali inih?" ki Tuk Pelanuk. Lapen iTuk Pelanuk peh lek sigup nidih em,[1] uten neh peh ieh em, telika rebpun ngepub terutung bang lubang dih meh lek ineh. Serebpu' peh em, riek-riek meh ieh ku rebpun sigup nidih. Kian, ba peh lek ut nidih lek,[2] meriek peh ieh em, but-but meh lek etut neh.

"Why is it so quiet here?" Mouse-deer wondered. He took his cigarette and smoked it, the smoke resembling that from smoking a porcupine in a hole. Occasionally, he would cough from the smoke. Who knows, perhaps he smoked so much that he coughed and farted.

[1]This is a naturally occurring PV clause with an agent binding into the patient, indicating that the former is still the subject, exactly as predicted by the symmetrical voice analysis in chapter 7.

[2]This is an uncommon case where *ba* 'very, much' is used as a predicate, with the subject of the clause being the verbal root *ut* 'suck, smoke.' Rendered literally, this clause says, 'His smoking was much.'

"Aa-hah! Emé' uih ngukut bua' emel dai' dayeh em," ki Tuk Pelanuk. Lawé keneh peh em, na seburur meh lun mepapu' neh.* "Ii, iné' ia-peh lek lun inih, na papu' kinih lek," ki Tuk Pelanuk.

"Aha! I'll go and scratch the *emel* fruit upriver," said Mouse-deer. As he journeyed, he did not meet so much as a single other person. "Hey, where could everyone have gone? I haven't seen anyone," said Mouse-deer.

*Sentence (50b) in §8.1

Iuk peh lek lawé neh emé' dai' dayeh, dui, ria'-ria' lek dulun. "Ngudeh lek ideh ineh lek?[3]"

As he advanced upriver, oh, dear, there came the sound of a tumult. "What could they be

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keburi' Tuk Pelanuk ineh, gang-gang emé' dai' dayeh.

doing?" said Mouse-deer, walking hurriedly upriver.

Emé' ieh em, edui, tetem-tetem teh lek tipan iSapi' bang tang iBuayeh. Papu' neh dawa' pung.

He arrived at the scene, and, oh, dear, Cow's leg was stuck in Crocodile's mouth. He met the animals.

"Ii, kudan iBuayeh iSapi' ineh?" ki Tuk Pelanuk.

"Say, what's Crocodile doing to Cow?" said Mouse-deer.

"Oo, pian kuman selipa tipan iSapi' iBuayeh ineh," kedawa' pung lek.

"Oh, Crocodile wants to eat one side of Cow's thigh," the animals said.

"Bah,[4] ngudeh teh iBuayeh na kuman selipa tipan iSapi'?" ki Tuk Pelanuk.

"So, why doesn't Crocodile just eat the side of Cow's thigh?" said Mouse-deer.

"Ineh men," kedawa' pung. "Na lun miek mutut bisara'[5] didueh ineh. iBuayeh mala, ieh ineh melau. iSapi' mala, ieh nenulong ni Buayeh," kedawa' pung teh.* "Sua-sua iTemecur, iKelio, iPayo[6] ninger bisara' didueh ineh, na teh ideh mileh mutut dih," kedawa' pung teh lek.

"That's just it," said the animals. "No one can judge their case. Crocodile says that he's hungry. Cow says that he helped Crocodile," the animals said. "One-by-one, Rhinoceros, Ox, and Deer heard their case, but they were not able to judge it." the animals said.

[5]A borrowing of Malay *bicara* 'talk,' here meaning 'trial.'
*Sentence (84a) in §9.1

has no conjunction or other means of joining the items other than via list intonation (cf. §5.1.2).

"Kai,[7] iko emé' ninger bisara' didueh ineh, mutut bisara' didueh ineh," kedawa' pung ni Tuk Pelanuk.

"Go, you go hear their case, judge those two's case," the animals said to Mouse-deer.

[7]This is imperative *kai* 'go!', not a pronoun (cf. §8.3.2).

"Oo, senang[8] ineh," ki Tuk Pelanuk nedeh. Uten iTuk Pelanuk peh lek sigup nidih em, riek-riek meh lek dawa' iTemecur, dawa' iKelio, dawa' iPayo deh neh. Gang-gang lek iTuk Pelanuk emé' matun ni Buayeh didueh iSapi'.

"Oh, I'm happy to," Mouse-deer said to them. He smoked his cigarette, and Rhinoceros, Ox, and Deer all coughed. Mouse-deer hurried toward Crocodile and Cow.

[8]A Malay loan meaning 'happy.'

"Oo, iko men inih, eca' Buayeh men. Kudan muh iSapi' inih?" ki Tuk Pelanuk ni Buayeh.

"Oh, it's you, brother Crocodile. What are you doing to Cow?" said Mouse-deer to Crocodile.

Awang-awang lek niat iBuayeh ninger ni Tuk Pelanuk nawar neneh eca' dih. "Oo, eca' Pelanuk, uih inih melau. Sikel kuman selipa tipan iSapi' inih, iemo' ieh na sikel meré. Na patut[9] buri' neh. Ieh sikel bisara' atun," ki Buayeh.

Crocodile was overjoyed to hear Mouse-deer call him "brother." "Oh, brother Mouse-deer, I'm hungry. I want to eat one side of Cow's thigh, but he's not willing to give it to me. He says it's not fair. He wants to hold a hearing first," said Crocodile.

[9]A Malay loan meaning 'fair, proper.'

"Enun teh inan bisara' eca' Buayeh? Em iko peh eca', melau peh nai em, ngudeh kuman selipa alang-alang, kudeh, na mabud muh dueh-dueh pekop tipan iSapi'? Na peh petap,

"What case is there to try, brother Crocodile? You, brother, if you're hungry, why eat only one side? What, can't you finish the whole of Cow's thigh? If that's not enough, eat Cow's

kinan nai peh iSapi' teburur-teburur dih ieh," keneh.

whole body," he said.

Peh ieh, meria' neh lek dawa' pung beken ku iTuk Pelanuk ngecuk ni Buayeh kuman ni Sapi'.*

*Sentence (109a) in §9.5.3.

At that, the other animals broke out into an uproar because Mouse-deer had told Crocodile to eat Cow.

"Bura' keh[10] becé muh, Pelanuk?" ki Sapi'. "Idi uih do'-do' nenulong ni Buayeh peh em, idi iko ngecuk ni Buayeh kuman pekop tipan kuh, kuman negkuh?" ki Sapi' lek. Gegker-gegker lek ieh ineh, metot kenen iBuayeh.

[10]*Bura' keh*, though less common, is roughly equivalent to *bura' peh* 'why so...?'

"How could you possibly be so stupid, Mouse-deer?" said Cow. "I kindly helped Crocodile, and you tell Crocodile to eat my thigh, to eat me?" said Cow. He trembled, afraid Crocodile would eat him.

"Mo, Sapi', buri' muh, iko nenulong ni Buayeh.* Kudeng apeh tulong muh neneh?**" ki Tuk Pelanuk.

*Sentence (84b) in §9.1.

"All right, Cow, you said that you helped Crocodile. How did you help him?" said Mouse-deer.

**Sentence (22a) in §6.6.2.

"Kudeng inih," ki Sapi'. "Emé' uih, sikel ngirup ebpa', sier kegkuh em, luti-luti iBuayeh ineh nan bada dai' ineh. Sék-sék dawar neh mutuh tulong. Idi uih nengun batang dih ret iketed neh. Pengeh dih, idi uih nengun ni Buayeh iné' bang ebpa'. Bah, kudeng apeh iko

"Like this," said Cow. "I came along, wanting to drink water, and as I looked, there was Crocodile lying prostrate on the sand over there. He was calling out in pain, asking for help. So I lifted that log off his back with my head. After that, I carried Crocodile into the river.

mala ni Buayeh miek kuman tipan kuh, miek kuman negkuh?" ki Sapi'.

Neriruh peh lek Tuk Pelanuk rayeh-rayeh ite-ngeb dih. "Hahaha, kian, iko luk buki'-buki' batek inih peh nengiding ni eca' Buayeh inih em, na keli' kuh dulun beken, uih peh em, na tu-tu uih menu, mecing maté' peh em, na teh uih menu," ki Tuk Pelanuk lek.

"Mebalih iko inih," keneh. "Kudeng inih peh iko inih Sapi', ara'-ara' peh em, mesusa' teh iko ruen ieca' Buayeh. Menu muyuh ni Sapi' inih nengun ni eca' Buayeh inih lun teluh?" ki Tuk Pelanuk. Perigai' lek pung-pung beken ungeng.

"Peh ieh, na lun perigai' ungeng. Ngelegkan ni Sapi', eca' Buayeh. Napeh iko kuman pekop tipan neh. Uih sikel nier, ku metu bala iSapi' ineh," ki Tuk Pelanuk ni Buayeh.

Mawang neh lek niat iBuayeh ninger bala iTuk Pelanuk ineh ni Sapi' ineh. Peh ieh, ligkan iBuayeh neh lek iSapi' ineh. Enun, siren peh lek urat tipan iSapi' ineh em,[11] telika tinapek ku tebpa' liled teh lek inih, bagas kitep iBu-

Come on, how can you tell Crocodile that he can eat my thigh, can eat me?" said Cow.

Mouse-deer laughed loudly on the riverbank. "Ha, ha, ha, no way! You, with your flabby, bulging stomach, lifted brother Crocodile? I don't know about everyone else, but as for me, I certainly do not believe it. Even when I die, I still will not believe it," said Mouse-deer.

"You are lying," he said. "You're doing this, Cow, refusing, unwilling to let Crocodile eat you. Do you believe that Cow carried Croco-dile, all of you?" said Mouse-deer. The other animals fell silent one by one.

"Well, then, don't all be silent. Release Cow, brother Crocodile. Later you can eat his entire thigh. I want to see whether Cow's words are true," said Mouse-deer to Crocodile.

Crocodile was delighted to hear Mouse-deer's words to Cow. And so, then, Crocodile re-leased Cow. The wound in Cow's thigh looked as though a *liled* thorn had been driven into it where Crocodile had bitten him.

ayeh.

[11]This is literally a subordinate clause with the PV verb *siren* from *sier* 'see,' with only a patient argument. This construction is common in storytelling and, while formally a whole clause, functionally serves to topicalize an entity whose appearance is about to be described. It can be approximated in English by rendering the verb *siren* as 'look/appear' rather than the more literal 'be seen.'

"Kudeng inih ieh, eca' Buayeh. Buri' iSapi' ina peh em, inau' neh ngun iko, kan?" ki Tuk Pelanuk.

"How about this, brother Crocodile. Cow said just now that he carried you, right?" said Mouse-deer.

"Éé! Metu," ki Buayeh.

"Yes! True!" said Crocodile.

"Neh, Sapi', kudeng apeh un muh ni eca' Buayeh ina?" ki Tuk Pelanuk ni Sapi'.

"Okay, Cow, how did you carry brother Crocodile just now?" said Mouse-deer to Cow.

"Inau' kuh ngun nan rier kuh men," ki Sapi' lek.

"I carried him on my neck," said Cow.

"Bah, rua' ngun ieca' Buayeh siren tau emung em," ki Tuk Pelanuk lek.*

*Sentence (69b) in §8.3.1

"Go on, carry brother Crocodile for us all to see," said Mouse-deer.

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"Mana' mekun kuh ni Buayeh inih peh. Na keli' muh tipan kinih ba ét kitep iBuayeh inih?" ki Sapi' lek.

"Bah, iko nemala ina, iko nenulong ni eca' Buayeh. Tau sikel keli' ku metu keh bala muh atau[12] na," ki Tuk Pelanuk. Ria'-ria' meh lek dawa' pung luk nepemung nan patar liang dai' puneng Padian ineh.

[12]A Malay loan meaning 'or.'

Peh ieh, neremasang peh lek iSapi', inun neh peh lek iBuayeh kudeng un neh neneh ina dih em, tub nan bada dai'. Rimud-rimud biring, rimud kabing meh lek iBuayeh ineh.

"Iapeh batang rayeh luk inau' muh ngiding ret iketed iBuayeh dih?" ki Tuk Pelanuk ni Sapi'.

"Oo, dai' ineh," ki Sapi' nicul eceh batang rayeh.

"Edui-edui, Sapi'," ki Tuk Pelanuk. "Na teh uih inih nepernah[13] mala nelun mebalih ret mon-mon Sapi' em, eleg muh mala, iko nengiding batang luk kirayeh neh ret ku keted

"I can't carry Crocodile now. Don't you know my thigh hurts so badly from being bitten by Crocodile?" said Cow.

"Come on, you said just now that you helped brother Crocodile. We want to know whether your words are actually true or not," said Mouse-deer. A commotion broke out among the animals gathered on the plain at the Brunei headwaters.

And so, full of resentment, Cow carried Crocodile with his head as he had carried him before and put him on the sand there. Crocodile broke a crooked, lopsided smile.

"Where is that large log that you lifted off Crocodile's back?" said Mouse-deer to Cow.

"Oh, it's right there," said Cow, pointing to a large log.

"Oh, dear me, Cow," said Mouse-deer. "I have never, ever called anyone a liar before, Cow, don't say that you lifted a log of that size from brother Crocodile's back," said Mouse-deer,

ieca' Buayeh inih," ki Pelanuk namid-namid keted iBuayeh. Siren peh lek kedih em, na meto-meto meh lek rimud kabing, rimud biring iBuayeh ineh.

"Naluk iko ineh, Sapi'. Mebalih iko ineh," ki Tuk Pelanuk. Mereh tangi' meh lek iSapi' ineh ku erur neh nengun ni Buayeh dih.

"Sapi' dé', metu peh iko nengiding batang ineh em, kidinga' ieh em, idi iko ngerereng neneh nan keted ieca' Buayeh em," ki Tuk Pelanuk ngecuk ni Sapi'.

Siren peh lek kiung iSapi' kerideng-kerideng teh lek ineh.

"Oo, Pelanuk, na kai setuju[14] iko ngenau' ni Sapi' kudeng ineh," kedawa' Temecur, kedawa' Kelio, kedawa' Payo, kedawa' Baka, kedawa' Kerubau.

[14]A Malay loan meaning 'agree.'

"Ineh men. Na' ba ét tipan kinih kitep iBuayeh ineh," ki Sapi'.

kicking Crocodile's back. Crocodile's unceasing, crooked, lopsided smile widened.

[13]A loan of Malay *pernah* 'ever,' curiously marked with the perfective prefix.

"You are lying to us, Cow. You are a liar," said Mouse-deer. Cow almost cried from his exhaustion from carrying Crocodile.

"Cow, if it's true that you lifted that log, pick it up, and put it on brother Crocodile's back," Mouse-deer ordered Cow.

Cow's eyes were now tightly closed.

"Oh, Mouse-deer, we don't agree with your doing that to Cow," said the Rhinoceros, the Oxen, the Deer, the Wild Boar, and the Buffalo.

"That's just it. And my thigh hurts so much from being bitten by Crocodile," said Cow.

"Bah, na peh muyuh pung beken setuju, na peh iko setuju Sapi', ilung neh iko mebalih, atau iko sikel ngigu' ni eca' Buayeh. Oo, na miek kudeng ineh. Jadi',[15] kudeng iko mebalih, miek ieca' Buayeh kuman tipan muh. Beken mo' selipa tipan muh, iemo' pekop tipan muh idi kuman emung burur muh," ki Tuk Pelanuk.

[15]A borrowing of Malay *jadi* 'so.'

Enun, pirud-pirud meh lek dawa' pung ineh. Ba tu neh rimud iBuayeh ku awang niat neh ninger bala iTuk Pelanuk.

"Kapeh[16] ieh Sapi', iko inih mala luk metu keh, atau naluk ngecekuh ara' meré tipan muh selipa kenen ieca' Buayeh?" keburi' iTuk Pelanuk.

[16]A contraction of *kudeng apeh* 'how'?

Neremasang peh lek iSapi' kedih em, nesugar, nebuter, netemueh peh ieh em, inun neh peh lek batang dih em, gieng-gieng meh lek patar liang puneng Padian ineh. Pipet neh peh lek batang rayeh dih nan keted iBuayeh peh em, enun teh, arod-arod lek iBuayeh ku ét keted neh. Lebput-lebput lek arod neh. Sen peh lek

"Well, then, if all you animals don't agree, and if you don't agree, Cow, it means that you're a liar, or you want to embarrass brother Crocodile. Oh, that cannot be allowed. So, if you're lying, brother Crocodile can eat your thigh. Not only one side of your thigh, but both sides of your thigh, and eat your entire body," said Mouse-deer.

The animals fell silent. Crocodile smiled gleefully at hearing Mouse-deer's words.

"How will it be, Cow? Are you telling the truth, or are you lying because you don't want to let brother Crocodile eat your thigh?" said Mouse-deer.

Cow, full of resentment, shook his body, flexed his muscles, and stiffened himself, and when he carried that log, the river plain at the Brunei headwaters shook. He threw the large log onto Crocodile's back, and Crocodile screamed in pain. His cries echoed. Crocodile's pupils almost jumped and stiffened from the weight of

kedih em, lé-lé uput lek ilung mateh iBuayeh temueh nan barat batang dih. Nginiat peh lek ieh em, kemu'-kemu' meh niat neh peh.

the log. As he breathed, his breaths were short and shallow.

"Edui na', maté lé'! Edui na' maté lé'!" ki Buayeh lek.

"Oh, I'm surely dead! Oh, I'm surely dead!" said Crocodile.

Siren peh tipan iSapi' ineh em, enun, darur-darur lek dara' remuat retnan urat luk kitep iBuayeh dih, ku ieh netemueh, nebutar nengid-ing batang rayeh dih.

As for Cow's thigh, it was flowing with blood coming out from the wound where Crocodile bit him, because he had stiffened and flexed his muscles to lift that large log.

Sium meh lek iTuk Pelanuk ni Sapi'. "Bulé' diko dih Sapi'," keneh nengapel ni Sapi'. "Oo emung pung luk nepemung nan patar liang pu-neng Padian inih,* inih putut bisara' iBuayeh didueh iSapi' dih peh," ki Tuk Pelanuk.**

*Example (2b) in §5.1.

Mouse-deer kissed Cow. "Oh, you poor Cow," he said, embracing Cow. "Oh, all animals who have gathered on this river plain at the Brunei headwaters, this is my judgment in the case of Crocodile and Cow," said Mouse-deer.

**Sentence (11g) in §6.1.

"Iko, Sapi', emé' ngirup ebpa'. Iko, Busir Ki-ung, luku neh nai liang batang rayeh ineh pad sukol nai. Sikel peh nai rudap, rudap neh nai tebeco kedangan dih. Sikel peh nai nangi', nangi' neh nai. Iemo' eleg nai ba rayeh tangi' ko', merugag kai kuma' inih," ki Tuk Pelanuk lek.*

*Sentence (78b) in §8.3.3

"You, Cow, go drink water. You, Abscessed Face, lie there beneath that log as much as you want. If you want to sleep, then sleep all day and night. If you want to cry, then cry. But don't cry so loudly, please; the rest of us will be annoyed."

Pengeh peh lek iSapi' nemala terima' kasih ni Tuk Pelanuk peh kedih em, emé' neh lek ieh ngirup ebpa'. Na teh ieh kio'-kio' ku kitep iBuayeh dih.

"Ninger muyuh wa' pung," ki Tuk Pelanuk teh. "Patad peh tau ret ienih, na tau dat adat. Na tau dat akal kudeng iBusir Kiung ineh. Pun dih peh em, nenguit negkuh pekeca' ieh. Nenguit negkuh pedinganak. Iuk-iuk peh em, musam neh ieh. Sikel neh ieh kuman negkuh. Do' luk kudeng inih? Inih peh em, tinulong iSapi' ieh, tawan iSapi', edui, sikel kuman selipa tipan iSapi' neh ieh. Muned luk kudeng ineh keli' muyuh?" ki Tuk Pelanuk lek.

Papag-papag lek dawa' pung ineh ticu' deh ku mawang niat peh.

"Mepatad tau peh. Ret iedih peh sidih em, emé' iedih neh ieh.* Saga' ni Busir Kiung maté liang batang ineh," keneh.

*Sentence (146a) in §10.4.

Neruked peh lek sebulan,
Nepupu peh lek seliakan,

After Cow thanked Mouse-deer, he went to drink water. He limped from having been bitten by Crocodile.

"Hear ye, all animals," said Mouse-deer. "Let us disperse from here; we are not so vile. We are not foolish like that Abscessed Face. First, he took me as a friend. He took me as a brother. But after a while, he got bored. He tried to eat me. Is this good? As for this, Cow helped him, poor Cow, and, oh, dear, he tried to eat a side of Cow's thigh. Is that right, do you think?" said Mouse-deer.

All the animals clapped their hands in happiness.

"Let us part ways now. Let each return whence he came. Leave Abscessed Face to die beneath that log," he said.

A month passed by after that day—
Another month, a third, gave way

Seliakan peh pinupu,

Selak peh pikatu,[17]

ret pengeh bisara' iBuayeh didueh iSapi' dih naté neh iBusir Kiung liang batang dih. Do' neh lek ulun dawa' pung. Do' neh lek tudo iBecuk bang puneng Padian ineh.

[17]These four rhyming lines of iambic tetrameter are a conventional and frequently recurring literary device. It denotes the passage of a significant period of time in a story. It need not, however, always be understood literally as asserting the passage of many years. Considerable liberties had to be taken with the English translation to preserve the poetic conventions.

To a year, which soon was gone, And the years marched on and on from the conclusion of the trial of Crocodile and Cow, and Abscessed Face died beneath the log. So the animals lived in peace, and Monkey dwelt happily at the Brunei headwaters.

A.2. *Uyu'*

An *uyu'* is a lullaby, written in a fairly inflexible iambic tetrameter, by far the most common meter found in Lun Bawang poetry. In such texts, the relative prominence of the ultima noted in §3.4 becomes quite clear: rhymes are based on the ultima alone, irrespective of any previous syllables. One example is this lullaby for a girl from Padan and Ganang (2018:237), accompanied by an English translation preserving the meter and rhyme scheme:

O emu' eleg nangi'	O my girl, come now, don't cry,
Idai'[1] tinam[2] iné lati'	Your mother's in the fields nearby
Né'[3] ngerupen ni Tebari'	With Tebari', who will supply
Ku berek buyor iti'.	A nice fat pig out of his sty.
O emu' eleg museh	O little girl, why now prolong
iEmu'[4] isut luk megeteh	Your anger? What seems to be wrong?
Idai' tinam iné' tupeh	Your mother's joined in with the throng
Né' ngereseg selinggageh[5]	To pound some rice and sing a song.
Ku luba'[6] mengetineh	She'll bring you food before too long
Ngenau' ni emu'[7] saget rayeh.	To make you grow up big and strong.

Notes:

1. *Idai'* is composed of the locative marker *i-* plus *dai'* 'there.'

2. *Tinam* 'your mother' is made of the old root *tina 'mother' fused to an archaic form of the second-person singular genitive pronoun. Otherwise, the form used is *tinan*, where the old root has fused to an archaic form of the third-person singular genitive pronoun; the pronominal force of the *-n* has long since been lost, making *tinan* the citation form for 'mother.' See also note 6 in §4.3.2.

3. This form is truncated from *iné'* 'went.' The leading *i-* is frequently lost in connected speech; here, the loss is motivated in particular by the fact that keeping it would result in having one syllable too many to fit the meter.

4. The personal *i-* is here, as normally before a vowel-initial name, pronounced as a glide (therefore commonly also spelled *yemu'*), in this case to fit the meter.

5. *Selinggageh* is an alternate form of *segageh* 'a short time, a while.' The presence of the medial cluster indicates that it is multimorphemic in origin. The *-ng-* is likely from the numeral ligature *nge-* (cf. §4.7.1), the schwa of which is lost due to the regular syncope rule (§3.3.9). The leading *se-* is plainly the prefixal form of 'one.' The origin of the *-li-* is uncertain.

6. The two forms *nuba'* and *luba'* 'cooked rice,' both used in this dissertation, exist in free variation.

7. *Ni emu'* is here pronounced as *nyemu'* for metrical purposes.

A.3. *Benging*

A *benging* is "a type of joke poem. . . intended to make listeners laugh. . . sung while harvesting, planting rice, or when the Lun Bawang community works *en masse*" (Tuie 1995:110; original in Malay). Rather than the ubiquitous iambic tetrameter, a *benging* follows an iambic hexameter. It has a variable rhyme scheme: as the numerous examples in Padan and Ganang (2018) show,

every line in the *benging* may rhyme, or rhyming lines may occur in pairs, quadruples, or larger units, much like in the *uyu'* above. In a *benging*, as in all rhyming texts, the rhyme consists only of the nucleus and coda of a word's final syllable, indicating, once again, that syllable's relative prominence. The rhymes need not be perfect—some variation in codas is permitted—but the vowels must always be consistent.

A *benging* is chanted on a simple melody using the first three degrees of a major pentatonic scale. In order to fit this melody, the following rules for foot division are used:[4]

1. Every line is divided into six feet (iambs). Cramming more than two syllables into a single foot is strictly forbidden.

2. Every disyllabic word receives its own iamb, with the ultima occupying the foot's stressed syllable.

3. Trisyllabic words are divided so that the penult and ultima occupy one foot. The antepenult may either receive its own foot, lacking an unstressed syllable, or it may, occupying the stressed syllable, share a foot with an immediately preceding monosyllable.

4. A monosyllable, if it does not share a foot with a following antepenult, may share the foot with another, immediately preceding, monosyllable, or the unstressed syllable of the foot may be left empty.

5. If the unstressed syllable of a foot is left empty due to the stressed syllable's being a mono-syllable or the antepenult of a trisyllable, the stressed syllable of the immediately preceding foot is lengthened to approximately twice its normal length in order to preserve the rhythm.

With the foot division accomplished, the following rules set the melody:

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[4]These rules are intended to give an overview and may not necessarily capture every single case. The rules are inferred from the performance of several other *benging*, the source for which performance is found in note 5 in the next section.

1. For the middle four feet of every line (i.e., every foot but the first and last), the stressed syllable of the iamb falls on scale degree 3, and the unstressed syllable falls on scale degree 2. A foot of only one syllable falls on scale degree 3, and the stressed syllable of the immediately preceding foot, also on scale degree 3, is lengthened.

2. The last foot of each line is slightly different: the unstressed syllable falls on scale degree 2, while the stressed syllable is placed on scale degree 1.

3. The first foot of each line may be handled in three ways: more commonly, the entire foot falls on scale degree 1. If a monosyllable, it may also be placed on scale degree 3. However, if the first foot is a disyllable and it is immediately followed by a monosyllabic foot (either a monosyllable or the antepenult of a trisyllable), the foot receives the same treatment as all other non-final feet: the first (unstressed) syllable falls on scale degree 2 and the second (stressed) syllable on scale degree 3.

This type of text is exemplified by the following *benging* from Padan and Ganang (2018:195–6). Syllables that fall on scale degree 3 are bolded. Syllables falling on scale degree 1 are italicized. All others fall on scale degree 2.

Rua' kuh **ceh** be**nging** iA**gan**[1] **Pel**a*nuk*
*i*A**gan**[2] ta**lau me**si**ru** ku*kud*
Papu' kuh **ceh**[3] de**lai luk** ma**beh** u*yut*
Ma**beh ke**ra**wang** pu**et ri**ni*mut*
Keli' kuh **meh** até ma**nid se**ngi*sut*
Keli' kuh **meh** ti**nai'** ma**nid seng**pi*cut*[4]
I*nih*[5] *ken* be**nging** ku[6] a**nak** iA**gan Pel**a*nuk*
*i*A**gan** ta**lau me**si**ru** ku*kud*.

Notes

1. As is common before vowel-initial names, the personal *i-* is here reduced to a glide to fit the meter.

2. In this line, however, the *i-* must be given its own syllable, lest the line be only five feet long.

3. A common clipping of *eceh* 'one.'

4. This word, displaying a rare heterorganic cluster, is discussed in §§3.2.1, 3.3.9.

5. As is common in normal speech, the leading *i* of this demonstrative must here be dropped to fit the meter.

6. The vowel of this word is here reduced to a glide before the following vowel-initial word in order to fit the meter.

A rough English translation preserving the rhyme scheme and foot structure—with some modification to account for English stress—follows. While a degree of liberty with some of the semantic nuances was necessary for this preservation, the essential meaning has not been compromised.

> *A* be**nging** I **shall tell** for **you** to *hear*
> *Of* A**gan**, A**gan**, the **straight**-leg**ged** mouse-*deer*.
> *I* once **met** a **man not** too **far** from *here*
> Bea**ring a** bas**ket** sewn **up at** the *rear*.
> *Of* the **li**ver **we** get **a** mor**sel**; a *mere*
> *Pinch* of **th' in**tes**tines** to **each**, **so** I *fear*.
> *This* is **the** be**nging**, **o** chil**dren**, give *ear*
> *To* the **fate** 'f A**gan**, the **straight**-leg**ged** mouse-*deer*.

The information presented above, combined with the use of bolding and italics in the transcription, should provide sufficient information for the musically-inclined reader with a well-trained ear to understand how to chant the *benging*. The curious reader with less musical training who wishes to hear the melody may either listen to the similar *benging* at the source in note 5 or follow these instructions:

1. Locate any instrument that can play at least one full pentatonic scale and identify the first three degrees of any major pentatonic or ionian diatonic scale. For the purposes of this example, the notes C, D, and E will be used.

2. Think of each line as a single measure in 6/4 time. If a line begins with either two italicized syllables or a single unformatted syllable, the first syllable will be a 1/8 note pickup beat into the measure.

3. Play italicized syllables on C, unformatted syllables on D, and bolded syllables on E.

4. Play all syllables as eighth notes, except where two bolded syllables occur in a row, in which case the first should be lengthened to a quarter note. Bolded and italic syllables (except the first of two consecutive italic syllables) should always occur on the beat; unformatted syllables should occur on the offbeat and be lightly de-accented.

A.4. *Tulu*

The final genre illustrated here is the *tulu*, which is a type of song used for special occasions. A tulu is made of a large number of stanzas, each consisting of three lines, usually rhyming, sung by a leader. In place of a fourth line is a chorus ("Talan dih") sung by all participants. While the *tulu* is sung, the participants join together in a line, each holding the shoulders of the person in front of him, and parade around the venue (traditionally the longhouse) in what resembles a human train (Tuie 1995; Ganang *et al.* 2008).

A *tulu* is written in what might, by analogy, be called a very loose iambic tetrameter. Each line is divided into four units of timing, somewhat analogous to feet, represented in figure A.1 as measures in a musical transcription. Unlike a proper foot, however, measures are not limited to just two syllables; they may be subdivided, repeatedly, if necessary, to allow for a large number of syllables to fall in any given measure. A *tulu* is sung to a pentatonic melody, largely the same across verses and *tulu*, with minor variation to account for the number of syllables in each line. One such illustration is provided in figure A.1 below, which gives a transcription of the first two verses of a longer *tulu*.[5]

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[5]This *tulu* and several *benging* can be heard sung in their entirety in a video published by Peter Rining Paris at *https://www.youtube.com/watch?v=HBZ9cODnTo8* ("Benging idi Tulu") in June 2020. Though the spoken commentary appears to be in, or at least influenced by, the closely related Pa' Ruab dialect, the *tulu* itself is plainly Kemaloh

FIGURE A.1. TWO VERSES OF A *Tulu*

What is most rhythmically striking in the above transcription is that, whenever possible, the final syllable of a multisyllabic word is timed to fall on a measure's downbeat, its most salient point. A second striking feature of this particular *tulu* occurs in measure 10, where, due to an excess of syllables in the line, *Lun Bawang* has to be rushed in order to fit the timing. Here, since no downbeat is available for the final syllable, it is assigned the next most prominent position, squarely on beat 2 of the measure. The same pattern holds true of the words *dengan* 'with,' *arang* 'among' and *ngerayeh* 'celebrate' in measures 7–9, whose ultimas fall squarely on the beat, and whose penults are relegated to an offbeat. The consistent pattern of rhythmic assignment is that, with the sole exception of *kinanak* 'sibling, cousin' in measures 20–21, multisyllabic words see their ultimas fall on a more prominent beat than their penults, behavior perfectly consonant with the claim of §3.4 that primary word stress is predominantly final.

Lun Bawang.

REFERENCES

BARSS, ANDREW, and HOWARD LASNIK. 1986. A note on anaphora and double objects. *Linguistic Inquiry* 17:347–54.

BELCHER, ALAN (ed.) 1982. *Bala Luk Do'*. Petaling Jaya: Bible Society of Malaysia.

BLUST, ROBERT A., 1971. Unpublished field notes on the languages of Northern and Central Sarawak.

BLUST, ROBERT A. 1974a. A double counter-universal in Kelabit. *Papers in Linguistics* 7:309–24.

BLUST, ROBERT A., 1974b. The Proto-North Sarawak Vowel Deletion Hypothesis. University of Hawai'i at Mānoa PhD dissertation.

BLUST, ROBERT A. 1981. Linguistic evidence for some early Austronesian taboos. *American Anthropologist* 83(2):285–319.

BLUST, ROBERT A. 1984. The Tring Dialect of Long Terawan. *Sarawak Museum Journal* 33.54(n.s.):101–35.

BLUST, ROBERT A. 1991. On the limits of the "thunder complex" in Australasia. *Anthropos* 86(4/6):517–28.

BLUST, ROBERT A. 1997. Ablaut in Northwest Borneo. *Diachronica* 14(1):1–30.

BLUST, ROBERT A. 1999. Language, dialect, and riotous sound change: The case of Sa'ban. In *Papers from the Ninth Annual Meeting of the Southeast Asian Linguistics Society*, ed. by Graham Thurgood, 249–359, Tempe: Arizona State University.

BLUST, ROBERT A. 2003. Three notes on early Austronesian morphology. *Oceanic Linguistics* 42:438–78.

BLUST, ROBERT A. 2006. The origin of the Kelabit voiced aspirates: A historical hypothesis revisited. *Oceanic Linguistics* 45(2):311–38.

BLUST, ROBERT A. 2010. The Greater North Borneo hypothesis. *Oceanic Linguistics* 49(1):44–118.

BLUST, ROBERT A. 2013a. Terror from the sky: unconventional linguistic clues to the Negrito past. In Revisiting the 'Negrito' Hypothesis, an Inter-Disciplinary Synthesis of the Prehistory of Southeast Asia. *Human Biology*, ed. by Phillip Endicott, Vol. 85.1, 401–16 [special issue].

BLUST, ROBERT A. 2013b. *The Austronesian Languages*. Canberra: Pacific Linguistics, revised edition.

BLUST, ROBERT A. 2015. The case-markers of Proto-Austronesian. *Oceanic Linguistics* 54(2):436–91.

BLUST, ROBERT A. 2016. Kelabit-Lun Dayeh phonology, with special reference to the voiced aspirates. *Oceanic Linguistics* 55(1):246–77.

BLUST, ROBERT A., and STEVEN TRUSSEL, 2020. Austronesian Comparative Dictionary. http://www.trussel2.com/acd/.

BOLANG, A., and TOM HARRISSON. 1949. Murut and related vocabularies, with special reference to North Borneo terminology. *Sarawak Museum Journal* 4:116–24.

CHEN, VICTORIA, 2017. A reexamination of the Philippine-type voice system and its implications for Austronesian primary-level subgrouping. University of Hawai'i at Mānoa PhD dissertation.

CLAYRE, BEATRICE. 1970. Focus: A preliminary survey of some languages of Eastern Malaysia. *Sarawak Museum Journal* 18:193–219.

CLAYRE, BEATRICE. 1972. A preliminary comparative study of the Lun Bawang (Murut) and Sa'ban langauges of Sarawak. *Sarawak Museum Journal* 20:145–71.

CLAYRE, BEATRICE. 1988. The changing face of focus in the languages of Borneo. In *Papers in Western Austronesian Linguistics*, ed. by H. Steinhauer, Vol. 3, 51–88. Pacific Linguistics.

CLAYRE, BEATRICE. 1991. Focus in Lundayeh. *Sarawak Museum Journal* 42:413–34.

CLAYRE, BEATRICE. 1992. Sa'ban: A case of language change. In *Shifting Patterns of Language Use in Borneo*, ed. by Peter W. Martin, 209–26. Williamsburg, VA: Borneo Research Council.

CLAYRE, BEATRICE. 2005. Kelabitic languages and the fate of 'focus': evidence from the Kerayan. In *The Many Faces of Austronesian Voice Systems: Some New Empirical Evidence*, ed. by I Wayan Arka and Malcolm Ross. Canberra: Pacific Linguistics.

COLUZZI, PAOLO. 2010. Endangered languages in Borneo: A survey among the Iban and Murut (Lun Bawang) in Temburong, Brunei. *Oceanic Linguistics* 49(1):119–43.

COMRIE, BERNARD. 1978. Ergativity. In *Syntactic Typology: Studies in the Phenomenology of Language*, ed. by Winfred P. Lehmann, 329–94. Austin: University of Texas Press.

CRAIN, JAY B. 1970a. The domestic family and long-house among the Mengalong Lun Dayeh. *Sarawak Museum Journal* 18:186–92.

CRAIN, JAY B., 1970b. The Lun Dayeh of Sabah, East Malaysia: Aspects of Marriage and Social Exchange. Cornell University PhD Dissertation.

CRAIN, JAY B. 1970c. The Mengalong Lun Dayeh long-house. *Sarawak Museum Journal* 18:169–85.

DATAN, IPOI. 1989. A brief ethnography of the Lun Bawang of Sarawak. *Sarawak Museum Journal* 40:143–56.

DATAN, IPOI. 2015. The Ulu Trusan Expedition 1900: Review from a Local Perspective. *Sarawak Museum Journal* 75:121–43.

DE CRESPIGNY, C. 1872. On Northern Borneo. *Proceedings of the Royal Geographical Society* XVI:171–87.

DEEGAN, JAMES. 1970. Some Lun Bawang spirit chants. *Sarawak Museum Journal* 18:264–80.

DEEGAN, JAMES, 1973. Change Among the Lun Bawang, a Borneo People. University of Washington Ph.D. Dissertation.

DEEGAN, JAMES, and ROBIN USAD. 1972. Upai Kasan: A Lun Bawang folktale. *Sarawak Museum Journal* 20:107–44.

DOWTY, DAVID. 1991. Thematic proto-roles and argument selection. *Language* 67(3):547–619.

EBERHARD, DAVID M.; GARY F. SIMONS; and CHARLES D. FENNIG. 2019. *Ethnologue: Languages of the World*. http://www.ethnologue.com: Dallas, Texas: SIL International, 22nd edition.

GANANG, RICKY; JAY B. CRAIN; and VICKI PEARSON-ROUNDS. 2008. *Kemaloh Lundayeh - English Dictionary*. Phillips, ME: Borneo Research Council.

GARMAN, MICHAEL A.; PATRICK D. GRIFFITHS; and ROGER J. WALES. 1970. Murut (Lun Bawang) prepositions and noun-particles in children's speech. *Sarawak Museum Journal* 18:353–76.

HARRISSON, TOM. 1959a. *The Peoples of Sarawak*. Kuching: Government Printing Office.

HARRISSON, TOM. 1959b. *World Within: A Borneo Story*. London: Cresset Press.

HARRISSON, TOM. 1967. Ethnological Notes on the Muruts of the Sapulut River, Sabah. *JMBRAS* 40:111–29.

HEIMANN, JUDITH M. 2007. *The Airmen and the Headhunters: A True Story of Lost Soldiers, Heroic Tribesmen, and the Unlikeliest Rescue of World War II*. Boston: Houghton Mifflin Harcourt.

HEMMINGS, CHARLOTTE, 2016. *The Kelabit language, Austronesian voice, and syntactic typology*. SOAS, University of London dissertation.

HIMMELMANN, NIKOLAUS P. 2005. Typological characteristics. In *The Austronesian languages of Asia and Madagascar*, ed. by K. A. Adelaar and Nikolaus P. Himmelmann, 110–82. London: Routledge.

HOSKIN, KIM. 2020. *In Plain View: Borneo to Vietnam, and thereafter*. Waikanae, New Zealand: John Douglas Publishing Ltd.

HUDSON, ALFRED B. 1977. Linguistic relations among Bornean peoples with special reference to Sarawak. *Studies in Third World Societies* 3:1–44.

KEENAN, EDWARD, and BERNARD COMRIE. 1977. Noun phrase accessibility and universal grammar. *Linguistic Inquiry* 8(1):63–99.

KIPARSKY, PAUL, 1987. Morphology and grammatical relations. Unpublished ms., Department of Linguistics, Stanford University.

KLOK, JOZINA VANDER. *Modal Questionnaire for Cross-Linguistic Use*. Max Planck Institute for Evolutionary Anthropology.

LABO PUR, SAMUEL. 1965. *Kamus Lun Dayeh*. Kuching: Borneo Literature Bureau.

LADEFOGED, PETER, and IAN MADDIESON. 1996. *The Sounds of the World's Languages*. Oxford: Blackwell.

LANGUB, JAYL. 1987. Ethnic self-labeling of the Murut or "Lun Bawang" of Sarawak. *Sojourn: Journal of Social Issues in Southeast Asia* 2(2):289–99.

LANGUB, JOSEPH DAWAT. 2014a. *Ada' Lun Bawang Ruat 1: Tuk Pelanuk*. Miri: Lensin Printing & Trading (Miri) Sdn. Bhd.

LANGUB, JOSEPH DAWAT. 2014b. *Ada' Lun Bawang Ruat 2: Yangi Dinganak Ilan*. Miri: Lensin Printing & Trading (Miri) Sdn. Bhd.

LEBAR, FRANK M. 1970. Legend, culture history, and geomorphology in the Kelabit-Kerayan Highland of Central North Borneo. *Journal of the Straits Branch of the Royal Asiatic Society* 43(1):183–5.

LEES, SHIRLEY P. 1959. Lun Daye phonemics. *Sarawak Museum Journal* 9:52–62.

LEES, SHIRLEY P. 1979. *Drunk Before Dawn*. Sevenoaks: OMF Books.

LOBEL, JASON WILLIAM. 2016. *North Borneo Sourcebook: Vocabularies and Functors*. Honolulu: University of Hawai'i Press.

MARTIN, PETER W. 1993. Who are the Belait? An ethnolinguistic inquiry. In *Language and oral traditions in Borneo. Selected papers from the First Extraordinary Conference of the Borneo Research Council, Kuching, Sarawak, Malaysia, August 4–9, 1990*, ed. by James T. Collins, Vol. 2 of *Borneo Research Council Proceedings Series*. Williamsburg, VA: Department of Anthropology, College of William and Mary in Virginia.

MCDONNELL, BRADLEY. 2016. Acoustic correlates of stress in Besemah. *NUSA* 60:1–28.

MICKELSON, E. H. 1939. His Mighty Works. *The Pioneer* X(37):29–33.

MORTENSEN, CHRISTIAN J. 2018. Subject and pivot in symmetrical voice: The case of Lun Bawang. *University of Hawai'i Working Papers in Linguistics* 49(4):1–9.

MOULTON, J. C.; H. N. RIDLEY; E. B. COPELAND; J.J. SMITH; A.GRIFFINI; and F. F. LAID-LAW. 1912. An expedition to Mount Batu Lawi. *Journal of the Straits Branch of the Royal Asiatic Society* 63:1–104.

MUNAN, HEIDI. 1993. Lun Bawang beads. *BEADS: Journal of the Society of Bead Researchers* 5:45–60.

OMAR, ASMAH HAJI. 1983. *The Malay Peoples of Malaysia and their Languages*. Kuala Lumpur: Dewan Bahasa dan Pustaka, Kementerian Pendidikan Malaysia.

PADAN, JAMES NOAH. 1971. *English-Bazaar Malay-Lun Dayeh (Murut) Phrase Book*. Kuching: Borneo Literature Bureau.

PADAN, YANSEN TIPA, and RICKY YAKUB GANANG. 2018. *Dayak Lundayeh idi Lun Bawang*. Palangka Raya: Penerbit Lembaga Literasi Dayak.

POLLARD, F. H. 1933. The Muruts of Sarawak. *Sarawak Museum Journal* 4(13):139–55.

POLLARD, F. H. 1935. Some comparative notes on Muruts and Kelabits. *Sarawak Museum Journal* 4(14):223–7.

RAPPAPORT HOVAV, MALKA, and BETH LEVIN. 2007. Deconstructing thematic hierarchies. In *Architectures, Rules, and Preferences: Variations on Themes*, ed. by Annie Zaenen, Jane Simpson, Tracy Holloway King, Jane Grimshaw, Joan Maling, and Chris Manning. Stanford, CA: CSLI Publications.

RASOLOSON, JANIE, and CARL RUBINO. 2005. Malagasy. In *The Austronesian Languages of Asia and Madagascar*, ed. by K.A. Adelaar and N.P. Himmelmann, 456–88. Routledge Language Family Series. London and New York: Routledge.

RAY, SIDNEY H. 1913. The Languages of Borneo. *Sarawak Museum Journal* 1:1–196.

RICKETTS, O. F. 1900. The Punitive Expedition Against Okong. *Sarawak Gazette* 30(413):107–16.

RICKETTS, O. F. 1963 [1901]. The Muruts of the Trusan River. In *The Sea Dyaks and Other Races of Sarawak: Contributions to the Sarawak Gazette between 1888 and 1930*, ed. by Anthony John Noel Richards, 278–86. Kuching: Borneo Literature Bureau.

ROSS, MALCOLM. 2009. Proto Austronesian verbal morphology: a reappraisal. In *Austronesian Historical Linguistics and Culture History: A Festschrift for Robert Blust*, ed. by Alexander Adelaar and Andrew Pawley, chapter 19, 295–326. Canberra: Pacific Linguistics.

SCHNEEBERGER, WERNER F. 1979. *Contributions to the Ethnology of Central Northeast Borneo: Parts of Kalimantan, Sarawak, and Sabah*. Berne: University of Berne, Institute of Ethnology.

SELLATO, BERNARD. 1997. Agricultural practices, social organization, settlement patterns, and ethnogenetic processes in East Kalimantan. In *People and Plants of Kayan Mentarang*, ed. by Kim Worm Sorensen and Belinda Morris, 27–57. WWF Indonesia.

SELLATO, BERNARD. 2009. Social organization, settlement patterns, and ethnolinguistic processes of group formation: the Kenyah and Putuk in East Kalimantan. In *Languages in Borneo: Diachronic and Synchronic Perspectives*, ed. by Peter W. Martin and Peter G. Sercombe, 11–56. Borneo Research Council.

SIMEON, JINKY JANE C.; LOW KOK ON; IAN STEPHEN BAXTER; MAINE SAUDIK; SANIAH AHMAD; and CHONG LEE SUAN. 2017. Traditional musical instruments and dance music of the Lundayeh of Sabah. *Wancana Seni Journal of Arts Discourse* 16:103–33.

SMITH, ALEXANDER D., 2017. *The languages of Borneo: A comprehensive classification*. University of Hawai‘i at Mānoa dissertation.

SOUTHWELL, C. HUDSON. 1949. Structure of the Murut language. *Sarawak Museum Journal* 5(1):105–14.

SOUTHWELL, C. HUDSON. 1999. *Uncharted Waters*. Calgary: Astana Pub.

ST. JOHN, SPENSER. 1862. *Life in the Forests of the Far East*. London: Smith, Elder, and co.

TUAN, GERAWAT NULUN, and ALEXANDER D. SMITH. forthcoming. *The Kelabit-English Contemporary Dictionary*.

TUIE, MEECHANG. 1990. *Orang Gunung Murut (Kumpulan Cerita Rakyat Lunbawang)*. Kuala Lumpur: Dewan Bahasa dan Pustaka, Kementerian Pendidikan Malaysia.

TUIE, MEECHANG. 1995. *Masyarakat Lun Bawang Sarawak: Suatu Pengenalan*. Kuala Lumpur: Dewan Bahasa dan Pustaka, Kementerian Pendidikan Malaysia.

WECHSLER, STEPHEN, and I WAYAN ARKA. 1998. Syntactic ergativity in Balinese: An argument structure based theory. *Natural Language and Linguistic Theory* 16:387–44.

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