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Mambay is spoken by about 15,000 people in Cameroon and Chad. The majority of the population lives in the North Province of Cameroon, while the remaining group of 3,000 speakers is found immediately across the border in the Mayo-Kebbi Prefecture of southwestern Chad (Grimes 2000: 43, 68). There is little variation among dialects of the language.

With respect to genetic affiliation, Mambay belongs to the Adamawa branch of Niger-Congo. More specifically, it has been placed within the Kebi-Benue group of Adamawa, also known as Group 6 or the Mbum group (Greenberg 1963, Boyd 1989:185, Elders in press). However, the position of Mambay has been disputed in the various classifications of the Kebi-Benue group. Reasons for this uncertainty include the complex history of the ethnic group and contact between Mambay and neighbouring Chadic and Adamawa languages. More significant perhaps is the lack of a comparative study of the Kebi-Benue group in which Mambay is included (cf. Boyd 1974).

Linguistically, Mambay exhibits a number of unusual characteristics. First, the consonant inventory contains the labial flap as a basic, contrastive speech sound. Second, contrastive nasality transforms the phonetic realizations of vowels as well as a wide range of consonants, including implosives. Third, laryngealization and pharyngealization present an interpretive puzzle with diverse phonetic realizations – including an aryepiglottic trill – that deserve careful consideration. Finally, tonal analysis is complicated by the interaction of a typical tonal downstep system with a tonal register shift used to signal emphasis at the level of discourse.

Although the Mambay language was identified at an early date by Strümpell (1910), it has not yet been researched in depth. Two studies, however, deserve mention. First, Eguchi's (1971) linguistic sketch introduces aspects of the phonology and morphology of Mambay; however, numerous features of the analysis presented here diverge from those found in Eguchi's paper. Second, Hamm's (2001) sociolinguistic survey touches on a wide range of topics, giving special attention to multilingualism, language use, and aspects of the linguistic relationship between Mambay and Mundang, a neighbouring Adamawa language. Specifically, he reports that despite a historical drop in population due to ethnic conflict, as well as continued pressure from the regional language Fulfulde, the vitality of Mambay remains stable.

The description given here is based on an analysis of 3300 lexical items elicited from Usumanu Kaɗa Buba, a 47-year-old male living in Kaakyo'w (Katchéo), Cameroon. Usumanu works as a geotechnical engineer, linguist and cultivator. He is also a member of COLAMA, the Mambay Language Committee. Badilou Kada Kakala, a 29-year-old male cultivator living

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in Figuil, Cameroon, also assisted with data collection. Both speakers assisted with recordings: those of Badilou are used for the section on interaction of vowels and consonants, and those of Usumanu for all other sections.

Consonants

Characteristic phonetic realizations of all contrastive consonants are shown in the consonant table.[1]

	Bilabial	Labio-dental	Alveolar	Retroflex	Palatal	Pre-glottalized palatal	Velar	Labial-velar	Pre-glottalized labial-velar	Glottal
Plosive	p b		t d				k g	k͡p g͡b		
Implosive	ɓ			ɗ						
Nasal	m		n				ŋ			
Flap	ⱱ̟			ɾ						
Fricative		f v	s z							h
Approximant					j	ˀj̃		w	ˀw̲	
Lateral approximant			l							

Contrast

All consonants except for /ŋ/ are found in initial position.[2]

/p/	pàárá	**paara**	‘field’
/ɓ/	ɓàɣâw	**ɓavbaw**	‘fish sp.’
/t/	táˀɓâ	**taɓa**	‘flour’
/d/	dágâ	**daga**	‘mouth’
/ɗ/	ɗáŋgâ[3]	**ɗaŋga**	‘squirrel’

[1] In the present study, the term ‘preglottalized’ refers to consonants with a glottal stop onset (see Esling, Fraser & Harris 2005 for a definition and detailed discussion). In Mambay, as is made clear by the transcription, laryngealization accompanies these consonants for the duration of their articulation.

[2] The following conventions have been applied: phonemic data, as in the first column, is presented within forward slashes, / /. Phonetic representations, as in the second column, are presented in the IPA alphabet using a narrow phonetic transcription, and are placed between square brackets, [ ], whenever they are dicussed within the text. Orthographic representations are shown in bold, and conventions follow those used in the standardized Mambay orthography described in Anonby (in preparation a). Symbols requiring explanation include the following:

ą, **ų**, etc.	nasalized vowel
a’, **u’**, etc.	laryngealized vowel
ah, **oh**, etc.	pharyngealized vowel
vb	voiced bilabial flap
ˈw	preglottalized voiced labial-velar approximant
ɣ̟	preglottalized voiced palatal approximant

[3] In this article, the symbol [ɗ] (a hooktop right-tail d) has been employed to represent the voiced retroflex alveolar implosive (cf. IPA 1999: 166, 179, where it is presented as symbol IPA219). This usage is in harmony with the observations of Pullum & Ladusaw, who report that although the symbol is ‘not actually on the IPA chart [it is] permitted implicity under IPA conventions’ (1996: 40).

/g/	gáˤħplâ	**gahbla**	‘hare’
/g͡b/	g͡băˤħ	**gbah**	‘pair of tongs’
/k/	kàːlá	**kàala**	‘axe’
/k͡p/	k͡pátˡgá	**kpatga**	‘distance’
/m/	mə̀ːbá	**maaba**	‘trap (n.)’
/n/	nə̀ːn̆ə́	**naarạ**	‘cloud’
/ʋ/	ʋ̣álbâ[4]	**vbalba**	‘current’
/ɾ/	ɾàánə̂	**raana**	‘spread out’
/f/	fàːlá	**faala**	‘back’
/v/	vàːlá	**vàala**	‘grass sp.’
/s/	sábâ	**saba**	‘tail’
/z/	zábâ	**zaba**	‘scorpion’
/h/	hámzâ	**hamza**[5]	‘wasp sp.’
/j/	jáŋgâ	**yaŋga**	‘life’
/ˀj/	ˀjăˤħnə̂	**ʼyahna**	‘pressure’
/w̃/	w̃ágâ	**waga**	‘skin’
/ˀw̃/	ˀw̃áːˡgá	**ʼwaaga**	‘crack (n.)’
/l/	lágâ	**laga**	‘mud shelter’

The above list establishes contrast for all of the consonants listed except for the nasals /m/ and /n/, which in word-initial position are invariably followed by nasalized vowels. The fact that /m/ is contrastive may nonetheless be deduced by comparison with other labial consonants in an environment which precedes a nasalized vowel:

/m/	mə̀ːbá	**maaba**	‘gift’
/p/	pə́ːˡgá	**pạaga**	‘filth’
/b/	bə̃hə̃ː	**bạhạa**	‘ibis sp.’
/ɓ/	ˀm̰ə́nːə̃	**ɓạnna**	‘truth’
/ʋ̣/	ʋ̣ə̃ːzá	**vbạaza**	‘fish sp.’
/f/	fə̃ːzí	**fạazi**	‘daughter-in-law’
/v/	vw̃ə́ˤħːn̆ə̃	**vwạhrạ**	‘to hide’

Contrast is more difficult to establish for /n/, since its oral counterpart /l/ never appears before a nasalized vowel. However, contrast is evident in coda position, as shown by the following pair of words:

/n/	kángâ	**kanga**	‘circumcision’
/l/	hàlgá	**halga**	‘crab’

Finally, contrast among the nasals, including /ŋ/, is shown in the following set of words:

/m/	fàmgá	**famga**	‘news’
/n/	kángâ	**kanga**	‘circumcision’
/ŋ/	ɗ̪áŋgâ	**ɗaŋga**	‘squirrel’

[4] Phonetic realization and transcription of the labial flap is discussed in the section on the labial flap below.

[5] As indicated in note 2, the orthographic symbol **h** also represents phonologically contrastive pharyngealization associated with vowels, and in such cases is written after the vowels it accompanies. This underrepresentational convention is possible since /h/ is overwhelmingly found in morpheme-initial position. For further discussion on the phonetic realizations of pharyngealization, see the section on vowel pharyngealization.

The labial flap

The labial flap, rare among the world's languages, is the most unusual member of the Mambay consonant inventory. The IPA alphabet has recently incorporated the symbol [ʋ] for transcription of the labiodental flap (IPA 2005: 261). In Mambay, the normative realization of the labial flap is bilabial rather than labiodental; the forward or 'advanced' quality of the bilabial flap as compared to the labiodental flap may be captured using the transcription [ʏ], as has been recommended by Olson & Hajek (1999: 112). In contrast to many other languages which contain the labial flap (Olson & Hajek 1999, 2003), it occurs frequently in Mambay (Anonby 2004, forthcoming). It is found in over one hundred lexical items from most word classes, and is additionally distributed among a variety of phonological environments. For example, it occurs as part of a complex onset in the Mambay word *vbwah* [ʏwâˤħ] 'fog'; such a configuration has been reported in only a handful of other languages (see Olson & Hajek 2003: 179, 181).

The glottal stop

Although it is not unambiguously contrastive as a segment, the glottal stop is a prominent feature of Mambay speech. It is found before vowel-initial morphemes, both word-initially and word internally, and in a few words which appear to be compounds, at least historically. The positing of the glottal stop as a contrastive unit is a question which has yet to be resolved, and no clear morphophonemic or even historical indicators pointing in either direction have been established.

kʲàqˀ	**kyag**	'hurt'
ʔínũ̂	**inu**	'body'
kʲàqˀʔínũ̂	**kyag inu**	'hurt the body'
ɓígâ	**ɓiga**	'child'
ʔí꞉	**ji**	'my ____'
ɓíkˀ↓ʔí꞉	**ɓig ji**	'my child'
ʔázî	**azi**	'female in-law'
tíʔázî	**ti-azi**	'female in-law (augmentative/respect form)'
ʔâ꞉	**aa**	'bean'
nǎ́ʔâ꞉	**na-aa**	'bean leaf'
là꞉ʔâ꞉	**laa-aa**	'bean-eater' (in **ziiri laa-aa** 'fish sp.')
búʔǎˀa̰↓nǐ	**bu-a̰'ni**	'frog sp.'

Since the morphemes in the first four sets of words are identifiable, it is easy to confirm the morpheme-initial distribution of the glottal stop, even in word-internal contexts. In the final example, however, there are no identifiable components, so it is reasonable to infer that the glottal stop is contrastive in this word. However, no other monomorphemic words with equivalent or similar CV structures (CV–glottal stop–VVCV) are attested within the lexicon. This supports the conclusion that the morpheme is in fact historically composed, and that a morpheme boundary has been signalled, at least historically, by the glottal stop.

However one may resolve this question, it is clear that the glottal stop is a meaningful element in the grammar of the language as a whole. Its interpretation either as a morpheme boundary marker or as a contrastive segment is dependent on factors external to the phonology, such as frequency in the lexicon and historical correspondences in related languages. Based on these factors, I have chosen to interpret the glottal stop as a morpheme boundary marker, even when the morphemes in question are no longer identifiable; however, the question is open for discussion.

Nasalization of consonants

An additional aspect worthy of mention is an apparent phonetic transformation of a number of consonants when they occur in the environment of a nasalized vowel. Members of this set of consonants, composed of implosives and numerous sonorants, are in complementary distribution with nasals as follows:

Consonant	Oral, orthogr.	Oral, phonetic	Gloss	Nasalized, orthogr.	Nasalized, phonetic	Gloss
ɓ / ˀm̰	**ɓag**	ɓàkˀ	‘meet’	**ɓa̰a**	ˀm̰ã̰ː	‘respect (v.)’
ɗ / ˀn̰	**ɗaa**	ɗà̰ː	‘find’	**ɗa̰a**	ˀn̰ã̰ː	‘leak’
ɾ / ŋ̌	**rab**	ɾápˀ	‘hug (v.)’	**ra̰a**	ŋ̌ã́ː	‘be blind’
j / ɲ	**yo**	yó	‘(existential)’	**ya̰**	ɲã́	‘(negation)’
ˀj / ˀɲ̰	**ya̰h**	ˀjã́ˤh	‘press’	**ya̰h**	ˀɲã́ˤh	‘call’
w / ŋ̰ʷ	**waa**	wâ̰ː	‘fig’	**wa̰a**	ŋ̰ʷâ̰ː	‘nose’
ˀw̰ / ˀŋ̰ʷ	**ˈwaa**	ˀw̰á̰ː	‘split (v.)’	(n/a)	—	—
l / n̰	**lah**	láˤh	‘burn’	**nah**	náˤh	‘lift’

In addition, the labial-velar /k͡p̄/, which employs a secondary velaric airstream mechanism (Ladefoged 1964/1968: 9–13), exhibits a nasal offglide before nasalized vowels:

k͡p̄	nák͡p̄íːgû	**nakpiigu**	‘fish sp.’
k͡p̄ᵑ͡ᵐ	nák͡pᵑ͡ᵐíːŋ̌íw̃âː	**nakpi̯irị̯wa̯a**	‘cat sp.’

This clear nasal offglide does not surface with the voiced labial-velar /g͡b/, however:

g͡b	gbàzàm	**gbazam**	‘abundant’
g͡b	g͡bâ̰ː	**gba̰a**	‘yellow’

Position of consonants in morphemes and syllables

The position of a consonant within a morpheme and syllable is often a determining factor in its phonetic realization. For example, plosives found in word-final position are characteristically voiceless and are not audibly released:

zábâ	**zaba**	‘scorpion’
zápˀ↓ʔíː	**zab i̯i**	‘my scorpion’
ɓígâ	**ɓiga**	‘child’
ɓíkˀ↓ʔíː	**ɓig i̯i**	‘my child’

Other consonants for which morpheme and syllable position influence phonetic realizations are the implosives /ɓ/ and /ɗ/, and the rhotic /ɾ/.

Realizations of /ɓ/:

Position	Realization	Example	Orthography	Gloss
Word-initial, syllable-initial	ɓ	ɓàgá	**ɓaga**	‘smallness’
Word-internal, syllable-initial	ˀɓ	páˀɓâ	**paɓa**	‘milk’
Syllable-final	ˀpˀ	páˀpˀ↓ʔíː	**paɓ i̯i**	‘my milk’

Realizations of /ɗ/:

Position	Realization	Example	Orthography	Gloss
Word-initial, syllable-initial	ɗ	ɗáŋgâ	**ɗaŋga**	‘squirrel’
Word-internal, syllable-initial	ˀɗ	waˀɗâ	**waɗa**	‘food’
Syllable-final	ˀl̰	waˀl̰ ꜜʔíː	**waɗ ji**	‘my food’

Realizations of /ɽ/:

Position	Realization	Example	Orthography	Gloss
Word-initial, syllable-initial	ɽ ~ r	rĭːnẫ	**riina**	‘to carry’
Word-internal, syllable-initial	ɽ	héːɽâ	**heera**	‘to go up’
Syllable-final	r	ɓárꜜná	**ɓarna**	‘to heal’

Realizations of /g/ in the context of vowels

In careful speech, the velar plosive /g/ is devoiced, unreleased (see preceding section) and backed when it occurs after a back or central vowel:

díkˀ	**dig**	‘palm or sole of ___’
dékˀ	**deg**	‘burn’
dáqˀ	**dag**	‘mouth of ___’
dóqˀ	**dog**	‘drink’
dúqˀ	**dug**	‘them’ (non-phrase-final form)

In rapid speech, /g/ usually softens to a velar fricative [ɣ] after front vowels and to a uvular fricative [ʁ] after back and central vowels. Note also that there is an echo of the vowel after this segment in rapid speech.

(Transcribed text 1:40.2–1:42.0)

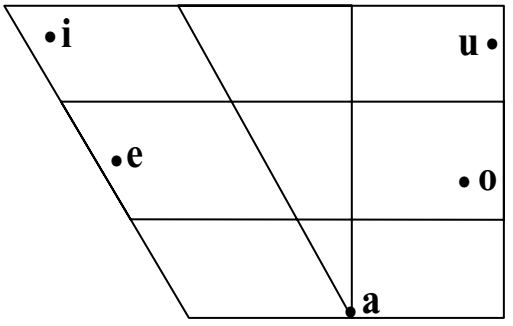
bòr jèrnáː ꜜdíɣ̆ˊ↗lé
bor yer naa digle
‘he removed this clothing from himself’

(Transcribed text 1:27.7–1:30.0)

gjâˤ mŭ̃n↗lùʁú‖↘ tòʁŏ̀↗ héːɽâ tòʁ ꜜhéːɽâ
gyah mun lugu, tog heera, tog heera
‘the sun then comes out, it rises, it rises’

Vowels

Mambay has an inventory of five basic vowels. These vowels may be lengthened, nasalized, pharyngealized and laryngealized.



díkⁿ	**dig**	‘palm or sole of ___’
dékⁿ	**deg**	‘burn’
dáqⁿ	**dag**	‘mouth of ___’
dóqⁿ	**dog**	‘drink’
dúqⁿ	**dug**	‘them’ (non phrase-final form)

Although there are also four phonetic vowel diphthongs, I hesitate to include them in the vowel inventory because they could also be interpreted as vowel–consonant sequences. This is a question which deserves further research. The four diphthongs are illustrated in the following set of words:

fǎʲ	**fay**	‘fish sp.’
wéʲ	**wey**	‘virginity’
kǎʷ	**kaw**	‘frog sp.’
ɗ̪êʷ	**ɗ̪ew**	‘grass sp.’

Length

Each of the five basic vowels occurs as contrastively long units. Contrast between long and short vowels is demonstrated in the following examples:

nɨ́nṹ	**ninu**	‘eye’
nɨ̀ːnṹ	**niinu**	‘bottom’
bègé	**bege**	‘slave’
bèːlá	**beela**	‘pangolin’
bàlá	**bala**	‘elephant’
báːlâ	**baala**	‘captive’
kóbô	**kobo**	‘money’
kòːlá	**koola**	‘relative’
sùlá	**sula**	‘magic’
súːlô	**suulo**	‘herd’

Contrast among the five long vowels is shown in the following words:

ɽíː	**rii**	‘carry’
ɽéː	**ree**	‘melt’
ɽáː	**raa**	‘spread out’
ɽóː	**roo**	‘amuse’
ɽúː	**ruu**	‘leave without warning’

Nasalization

Short vowels as well as long vowels may be nasalized. Nasalized mid vowels are, however, absent from the language.

bṵ̀ŋ̍	**bụrị**	‘manioc sp.’
bṵ̀ːŋ̍	**bụurạ**	‘millet sp.’
bḭ́ːŋ̰̍	**bịirụ**	‘cobra’
ŋ̍́ː	**rịi**	‘clean out, wink’
ŋ̍́ː	**rạa**	‘blind, singe’
dṵ̰ː	**dụu**	‘slip something into a person’s hand’

Pharyngealization

Three of the basic vowels may also be pharyngealized. As in the case of nasalization, this prosodic feature is absent from the phonological mid vowels.

Phonetically, pharyngealization on vowels is realized as a vowel modification and, depending on its context, may also take on a consonantal quality (see below in this section). However, since pharyngealized vowels occur in syllables closed by other consonants, and since syllable-final consonant clusters are otherwise absent from the phonology, I have interpreted pharyngealization phonologically as a vowel modification rather than as a consonantal unit (this will be addressed in depth in Anonby (in preparation b)).

Also for these vowels, contrast in length is neutralized: the vowels appear both in morphological contexts in which long vowels are obligatory (such as open monosyllabic verb roots) and in those in which short vowels are obligatory (such as closed syllables).

Although two of the three pharyngealized vowels are phonetically mid vowels, the fact that they can be nasalized suggests that they are phonologically high vowels (see the adjacent paragraphs on nasalization and the interaction of prosodic features), and that pharyngealization thus has the additional effect of lowering vowel height.

The realization of pharyngealized vowels in careful speech is illustrated in the set of words given below. Since the orthography follows the phonetic realization of these vowels rather than their underlying form,[6] a phonological transcription is provided in the second column here.

sé^{ʕ}ħ	/sí^{ʕ}/	**seh**	‘hand of ____’
zà^{ʕ}ħ	/zà^{ʕ}/	**zah**	‘cow of ____’
tò^{ʕ}ħ	/tù^{ʕ}/	**toh**	‘snake of ____’

In natural (as opposed to careful) speech, pharyngealization is phonetically realized only as a vowel modification, and is not additionally realized with a voiceless pharyngeal fricative.

(Transcribed text 0:00.0–0:01.3)

là^{ʕ}	mā́$^{↓}$	já:
lah	**má**	**yạa**

‘may the story live’

(Transcribed text 1:38.4–1:42.0)

mṵ̄n |	hù?ṵ̃n↗sé^{ʕ} |	bòr	jèrnā́ː	↓dí ɣ̄ī́↗	lé
mun,	**hu’n seh,**	**bor**	**yer naa**	**digle**		

‘then, he stretched out his hands, he removed this clothing from himself’

[6] See notes 2 and 5 for comments on the orthographic conventions used for pharyngealization and the synchronically distinct consonant **h**.

Laryngealization

Laryngealization may apply contrastively to all five basic vowels. Evidence parallel to that presented in the previous paragraph demonstrates that laryngealization functions like pharyngealization in two ways: it is a vocalic rather than consonantal phenomenon, and contrast in length is neutralized.

bḭʔ	**bi'**	'dip'
bḛʔ	**be'**	'spy (v.)'
ba̰ʔ	**ba'**	'fill'
bo̰ʔ	**bo'**	'ugliness'
bṵʔ	**bu'**	'gather'

In the non-final position of phrases in rapid speech, laryngealized vowels are realized as a vowel–glottal stop sequence followed by a brief laryngealized echo vowel:

(Transcribed text 0:07.5–0:08.0)	síʔḭˈlá	**si'la**	'shadow'
(Transcribed text 1:33.3–1:34.2)	kèʔḛˈsòːgá	**ke'sooga**	'heat'

Interaction of prosodic features

Although pharyngealization and laryngealization are never associated with the same host vowel, either of these prosodic features may co-occur with nasalization. (Note that the phonetic mid-high realization of phonologically high nasalized vowels in the following examples is due to the lowering associated with pharyngealization; see the sections on nasalized and pharyngealized vowels above.)

ŋ̃ḛˤh	**rị̃h**	'slither'
ŋ̃ɐ̰ˤh	**rą̃h**	'tree sp.'
ŋ̃o̰ˤh	**rụ̃h**	'polish'
ŋ̃ḭʔ	**rị̃'**	'glue (v.)'
ŋ̃ɐ̰ʔ	**rą̃'**	'rot (v.)'
ŋ̃ṵʔ	**rụ̃'**	'lean'

Interaction of vowels and consonants: the aryepiglottic trill

Among most speakers, a phonological sequence which contains a preglottalized[7] palatal semivowel followed by a nasalized and pharyngealized high vowel is pronounced as a syllabic nasalized voiced aryepiglottic trill (sometimes non-technically referred to as an epiglottal trill) with an epiglottal stop onset. Salient perceptual characteristics of this sequence include a stop followed by a readily audible voiced trill whose origin is clearly further back than the oral cavity; this is coupled with the croaking quality associated with pharyngeals. Esling (1996, 2002) gives a detailed articulatory description of the aryepiglottic trill in the context of other pharyngeal and epiglottal articulations.

ʔn̰ʲɐ̃ˤh	**yą̃h**	'name (n.)'
ʔʢ̰[8]	**yị̃h**	'name of ____'
ʔʢ̰ˈám	**yị̃h am**	'your name'

[7] See note 1.

[8] The use of the symbol [ʢ] to indicate a voiced aryepiglottic trill (in addition to its stated usage marking a voiced epiglottal fricative) follows conventions used in Esling (1996).

Tone

Mambay is a tonal language with two tone levels, High (H) and Low (L). Tone functions both lexically and grammatically.[9] Additionally, downstep of the tonal register and emphasis-driven register shift is pervasive.

Lexical tone

Lexical tone contrast is characteristic of all major morphological classes. Nouns, which I will use to illustrate this, are most commonly realized with HL or LH melodies in phrase-final position (including words elicited in isolation). However, in non phrase-final position, these melodies are realized as H or L, respectively. As the data below show, a tonal analysis is complicated by morphological alternations determined by a word's position in the phrase. This issue will not be addressed in depth here, as it is being pursued elsewhere (Anonby in preparation b).

HL	ká꞉lâ	**kaala**	'head'
H	ká꞉lí↓ʔí꞉	**kaali ji**	'my head (alienable relationship)'
LH	kà꞉lá	**kàala**	'axe'
L	kà꞉lìʔí꞉	**kàali ji**	'my axe'

Less commonly (<10% of items), nouns are realized with H or L in all contexts. These words are typically, but not invariably, ideophonic.

H	nű꞉ŋ̋ű̋	**nuuru**	'breast'
H	nű꞉ŋ̋ű̋ʔí꞉	**nuuru ji**	'my breast'
L	gàgàˢʰŋ	**gagahŋ**	'drumstick'
L	gàgàˢʰŋʔí꞉	**gagahŋ ji**	'my drumstick (alienable)'

Grammatical tone

Grammatical tone is also an important feature of the tonal system. For example, words in different morphological classes are often distinguished using tone.

fwă̋ˢʰnâ̌	**fwahna**	'to wash'
fwâ̌ˢʰnă̋	**fwahna**	'wash (n.), gully'

Further, different forms within the same grammatical class are often distinguished by tone alone.

mṵ̀ʔj̰âː	**mu yáa**	'you move (intransitive, imperfective)'
mṵ̀ʔj̰áː	**mu yáá**	'you finish (transitive, imperfective)'
mṵ̀ʔj̰áː	**mu yáá**	'you moved (intransitive, past)'
mṵ̀ʔj̰àː	**mu yâa**	'you finished (transitive, past)'
mṵ̋ʔj̰âː	**mú yáa**	'move! (intransitive)'
mṵ̋ʔj̰á↓á	**mú yâa**	'finish! (transitive)'

[9] In proposed changes to the Mambay orthography (Anonby in preparation a), diacritics mark tone on verbs and pronouns, and are also used to distinguish minimal tone pairs among nouns.

Downstep

Downstep of the tonal register is pervasive in Mambay, and is distinct from the intonational declination which is also found in the language. In most types of phrases, whenever an H tone is followed by an LH sequence, the pitch of the second H is downstepped, thus becoming phonetically lower than the first.[10] This is the case whether or not the L is realized on the surface.

PHONETIC TRANSCRIPTION	PHONOLOGICAL TRANSCRIPTION	GLOSS
tíkéːkêːˈɽú	/tíkéékéèrú/	'firefly'
ɓígâ	/ɓígà/	'child'
ɓíkˉˈɽĩ̋ː	/ɓígˋɻí/	'my child'
ɓíkˉˈtúːɽùˈtĩ̋ː	/ɓígˋtúúrù ɽí/	'my brother/sister'

Register shift

Register shift is a second pervasive characteristic of the Mambay tone system, used to rank the importance of a morphological or syntactic unit within any natural discourse. The minimal unit which may be shifted is the morpheme, not the syllable. It appears that the degree of register raising is relative to the emphasis which a speaker wishes to place on a given unit, since the range of shift varies greatly between instances. Three basic variations to the default tone patterns are observable:

1) register raising, to signal emphasis [↗];
2) suspension of downstep, to foreshadow emphasis; and
3) register lowering, to remove emphasis [↘]. This third variation may also be used to provide 'emphasis by means of underemphasis'.

Register shift renders analysis of lexical tone labyrinthine, since the type and precise degree of emphasis placed on a unit is unknown to the non-native speaker. Consequently, lexical items and syntactic units must be elicited in frames in order to determine underlying tonal melodies; once the tone of a lexeme is known, any register shift in which the lexeme participates may also be deciphered. This is illustrated by the following utterance, in which all three variations are present in addition to the default tone pattern:

1) register raising
2) suspension of downstep
3) register lowering
4) default tone pattern

gjâˀ mũ̋n (1) ↗lùʁú ‖ (3) ↘tòʁǒ̌ (1) ↗héːɽâ (4) tòʁ ˈhéːɽâ (2) tòʁ sóːɽâ (2) tòʁ sóːɽâ tòʁ (1) ↗sóːɽâ

gjâˀ mũ̋n↗ lùʁú ‖↘ tòʁǒ̌↗ héːɽâ tòʁ ˈhéːɽâ tòʁ sóːɽâ tòʁ sóːɽâ tòʁ↗ sóːɽâ
gyah mun lugu, tog heera, tog heera tog soora tog soora tog soora
'The sun then COMES OUT, it RISES, it rises [and] it shines [and] it shines [and] it SHINES!'

Transcription

The following section presents a transcription of the fable of the North Wind and the Sun. The text, translated by Usumanu Kaɗa Buba, accurately reflects the source text. However, standard

[10] Technically, it may be the HL sequence which results in the lowering of the tonal register, since the register of the L is itself lowered (Snider 1999). However, for the benefit of the reader, the convention of marking automatic downstep before a lowered H is retained.

Mambay discourse features such as opening and closing formulas, topic and participant presentation, and narrative verbal forms have been retained.

là^{ʕ} mā́$^{↓}$ já: ká: $^{↓}$tí sí gì̀$^{↓}$ɾó ↘ gbàŋtàŋ gbàŋtàŋ ‖ ↗ ɗáŋ $^{↓}$pá?l̰pá?l̰ ‖ gé^{ʕ}ná: | gé:ɾî nḭ̀: ↗ sí ?ḭ̄$^{↓}$lá | ↘ mā́ ↗ gjâ^{ʕ}ħ ‖ ʔà ↗ dā̰:n ↘ zì só?o̰$^{↓}$lé ‖ gé:ɾî nḭ̀: ↗ sí ?ḭ̄$^{↓}$lá | βè lè jó ↗ ló?w̰ ‖ gjâ^{ʕ}ħ $^{↓}$bó: ↘ bè lè lè ?ā́:$^{↓}$ɾí $^{↓}$dú ‖ ↗ mṵ̄n gjâ^{ʕ} bè ↗ hā́: | ↘ lè tú?ṳ̀ ↗ nṵ̄m | lá?ą̀nā́: lè lè ?ā́:$^{↓}$ŋ̀ā̰m ↘ ɾè ‖ ↗ ɗá: tò ↗ pá: $^{↓}$vérgí bín | tòʁò | ↗ ló:$^{↓}$lé | ɲà̰:$^{↓}$lé sú$^{↓}$ʁú | ↗ báŋ ?ílé | mā́ tísṵ̄: $^{↓}$wágâ ‖ báŋ ?ílé kàm ↗ kp̄áŋkp̄áŋ ló?w̰ | ?ó:: ↘ gé:ɾí bîn ?ìì ɾí ?ḭ̄ɾó índù já ‖ ↗ mṵ̄n gé:$^{↓}$ɾą́ ‖ nḭ̀: sí ?ḭ̄lâ mā́ ɾó? jáʁ ↗ gjâ^{ʕ}$^{↓}$ɾé ‖ bè:: | lè túʔṳ̀$^{↓}$nṵ̄m bà^{ʕ} lè ↗ jó | ↘ ká só?o̰$^{↓}$léɾè | kà lè bó: | lè $^{↓}$tḭ̄: w̃ṵ̄: $^{↓}$?ám ‖ l̀è ↗ bór | jèr $^{↓}$dó? $^{↓}$?ín $^{↓}$pâ: $^{↓}$dó?o̰ɾè tóʁ mṵ̄ kò ‖ ↗ mṵ̄n gjâ^{ʕ} bè ↗ hā́: ↘ mṵ̄ bóɾì ‖ ↗ gé:ɾâ ?èr kp̄à?ą̃nā̰ | ?èr kp̄à?ą̃nā̰ | ?èr kp̄à?ą̃nā̰ | ?èr kp̄à?ą̃nā̰ ‖ lá?ą̀ lè ↗ bór jé$^{↓}$ɾí | ?ín $^{↓}$pá: nā̰pù ↗ gá$^{↓}$ɾé | ↘ pá: nā̰pù$^{↓}$gá bó: tòʁ gbà^{ʕ}ħ jè$^{↓}$ɾí | ↘ mā́ sé^{ʕ}ħ ↗ kp̄áŋkp̄áŋ tòʁ $^{↓}$dím vòɾò $^{↓}$?ílé ‖ gì: wár sé^{ʕ}ħ $^{↓}$?í ↗ lé ↗ já ↘ | gé:ɾâ $^{↓}$bó: | tòʁ kp̄à$^{↓}$?ą̃nā̰ dò:$^{↓}$nḭ̄: ‖ gé:ɾâ | mṵ̄n ló:$^{↓}$lé | wàr pá: nā̰pù$^{↓}$gáɾè ‖ ↗ ?à: ɗá: | ?à: bó$^{↓}$r´ | tísṵ̄: ↗ wágâ kù:ɾù$^{↓}$já ‖ ↗ mṵ̄n gjâ^{ʕ} bè ↗ hā́: nā̰ ↘ mṳ̀ kóɾì mṳ̀ bóɾì ↗ já ‖ ↘ mṳ̀ ↗ kjáŋ | lè lè túʔṳ̀$^{↓}$nṵ̄m bà^{ʕ}: | lè ?ā́:$^{↓}$ŋ̀ā̰mɾè ‖ ↗ gjâ^{ʕ} mṵ̄n ↗ lùʁú ‖ ↘ tòʁò̰ ↗ hé:ɾâ tòʁ $^{↓}$hé:ɾâ tòʁ só:ɾâ tòʁ só:ɾâ tòʁ ↗ só:ɾâ ‖ há: mṵ̄n kèʔḛsò:gá | lùʁ $^{↓}$ka: $^{↓}$pâ:$^{↓}$nā́$^{↓}$ɾé ‖ ɗá:$^{↓}$?ílé kásô:$^{↓}$gá ↗ ló?w̰ ‖ ↘ mṵ̄n | hùʔṳ̀n ↗ sé^{ʕ} | bòr jèrnā́: $^{↓}$dí ɣ̄ ↗ lé | ɓó?o̰ vóɾò sùʁù ‖ mṳ̄ lá?ą̃ ↗ kì ké: ↘ mṳ̄ lá?ą́: ↗ gjâ^{ʕ} bè hā́: mṳ̀ ↗ kòjá ‖ ↘ lè lè zwá?ą̃ ‖ dú jó mā́ bôr jèɾí $^{↓}$mā́ ?ílé ?ílé ↗ ?ā́:ŋ̀ā̰m só?o̰lé dó:nā̰:$^{↓}$ɾé ‖ ↗ mṵ̄n gé:ɾî nḭ̀: $^{↓}$sí ?ḭ̄lá | bè ↗ hā́: | dwà?ą̀nā́:$^{↓}$ɾé lè ↗ kóɾí ‖ mṳ̀ ?ā́:$^{↓}$ɾí ↗ lé | ↘ mṳ̀ jó mṳ̀ tḭ̄:m wṵ̄: $^{↓}$é: ɾè ‖ kàɣ̄ā̰w̃ | là^{ʕ} mṵ̄ tú: $^{↓}$ká:nḭ̄ $^{↓}$gá ‖

Orthographic version

Lah má yąa kaa tisigro gbaŋtaŋ gbaŋtaŋ.

Ɗaŋ pa'lpa'l.

Geh naa, geeri nii si'la ma gyah, a dąanzi so'le. Geeri nii si'la, be le yo lo'w. Gyah boo, be le le ąari du. Mun gyah be hąa, le tu'num la'naa le le ąaram re. Ɗaa to paa vergi bin, togo, loole, yąale sugu. Baŋ ile ma tisụu waga. Baŋ ile kam kpaŋkpaŋ lo'w. Koo geeri bin hįi ri'ro indu ya. Mun geera nii si'la ma ro' yag gyah re, be le tu'num bah le yo ka so'le re. Ka le boo, le tįi wụu am. Le bor yer do' in paa do' re tog mu ko. Mun gyah be hąa, mu bori. Geera er kpą'na. Er kpą'na. Er kpą'na, er kpą'na. La' le bor yeri in paa napuga re, paa napuga boo tog gbah yeri. Ma seh kpaŋkpaŋ tog dim voro ile. Gii war seh ile ya, geera boo, tog kpą'na doonii. Geera, mun loole. War paa napuga re. Aa ɗaa, aa bor tisụu waga kuuru ya. Mun gyah be hąa na mu kori mu bor ya? Muu kyaŋ, le le tu'num bah le ąaram re. Gyah mun lugu, tog heera, tog heera, tog soora, tog soora, tog soora, haa mun ke'sooga, lug kaa paa naa re. Ɗaa ile ka sooga lo'w. Mun, hu'n seh, boro yer naa digle, ɓo' voro sugu. Mú la' ki kee, mú la': gyah be hąa, mu ko ya? Le le zwa', du yo ma bor yeri ma ile, ile ąaram so'le doo naa re? Mun geeri nii si'la be hąa, dwa'naa re le kori, mu ąari le mu yo mu tįim wụu ee re. Kavbaw. Lah, mú tuu kaani ga.

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