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## A Grammar Sketch of Sentani

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# **A grammar sketch of Sentani**

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Thesis Research Master's Linguistics  
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## Glosses and Abbreviations

<b>Gloss</b>	<b>Meaning</b>
1, 2, 3	first, second, third person
AT	ablative
AU	affected undergoer
CONJ	conjunction
CONN	connective
CSet	Central Sentani
DEM	demonstrative
DIR.TO	direction towards
DIR.FRM	direction away
DIST	distal
DL	dual
E	epenthetic vowel
EMPH	emphatic particle
ESet	Eastern Sentani
EXCL	exclusive
FOB	father's older brother
FROM	away from
FUT	future
FYB	father's younger brother
HAB	habitual
IMPF	imperfect
INCL	inclusive
IND	indicative
IN	in or at
LOC	locative
MB	mother's brother
MED	medial
N	unspecified nasal phoneme
NEG	negative
OBJ	object
PN	proper noun
PL	plural
PLU	plural undergoer
POSS	possessive
PRO	independent pronoun
PROX	proximal
PST	past
REFL	reflexive
SBJ	subject
SG	singular
TO	general movement
TWDS	towards
VENT	ventive
WSet	Western Sentani

## Foreword

This Research Master's thesis, a sketch grammar of the Sentani language, was born out of the exceptional circumstances created by the COVID-19 pandemic. The pandemic prevented the on-site fieldwork on a different Papuan language originally planned as my thesis project, and I thus had to find an alternative project. Since I wanted to write a sketch grammar of a Papuan language I contacted people from or in contact with people from New Guinea to see if there were any native speakers of Papuan languages living in the Netherlands; I came into contact with Gershon Kaigere, or *Kə̀ləw nikiban*, and together with him we were able to discuss the Sentani language and collect the data on which this sketch grammar is based. I am extremely grateful to have worked with my friend Gershon, and his knowledge and joy of language, culture and life has taught me much about how to approach the study of language and myself.

*Clemens Mayer*  
*Leiden, 2021*

## 1 Introduction

This chapter introduces the Sentani language, its dialects and speakers (section 1.1), and its linguistic area (section 1.2), as well as the methodology and research data that form the basis on which this sketch grammar is written (section 1.3). Sentani is an endangered and relatively underdescribed language spoken around the Sentani Lakes area near Jayapura in western New Guinea (see Figure 1).



Figure 1. Sentani Speech area (base map from Google Maps).

The name Sentani, although generally used to denote the language and the area, is not an endonym. Cowan (1965) states that it "...probably originates from the coastal tribes of the Humboldt [Yos Sudarso] bay.", but it could also possibly be a loan from Japanese 千谷 *sentani* 'thousand valleys', referring to the surrounding Cyclops mountain range ("Festival Danau

Sentani” 2008).<sup>1</sup> There seems to be no historical word for the language or Sentani-speaking peoples as a whole, but Sentani or *həndani* ‘Sentani’ are now generally accepted as endonyms. Lake Sentani itself is referred to as *pu jakala* ‘clear water’, with some sources giving *pu jaka afəw* ‘clear water language’ as the endonym for the language specifically (e.g. Onde et al. 1979), and individuals are generally connected to the village or house they are from, rather than the area as a whole. Contemporarily, these village or house names practically function as clan names and/or surnames and *həndani afəw* ‘Sentani language’ is used as the name for the language.

### 1.1 The Sentanic family and the Sentani dialects

Sentani (ISO 639-3: *set* ) belongs to the small Sentanic<sup>2</sup> language family (Gregerson and Hartzler 1987, *inter alia*). Although higher-level classification remains debated (e.g. Wurm, Voorhoeve, and McElhanon 1975; Ross 2005), the internal organization of the Sentani family has been established as in Figure 2 since the 1960s (Cowan 1965).

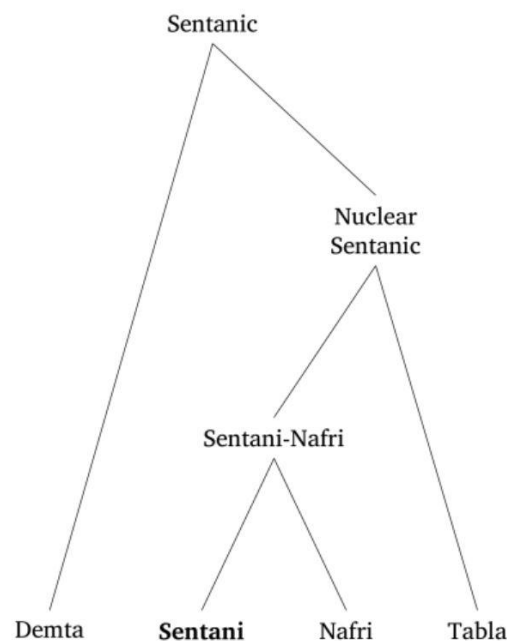


Figure 2 The Sentanic language family

All languages in the family are spoken around the Cyclops mountain range at the north-eastern coast of Papua province, Indonesia, with Sentani being spoken the furthest from the coast. Sentani itself is divided into three dialects: Western, Middle, and Eastern Sentani. The three dialects are quite similar and mutually intelligible, but have some differences in term of their phonology (M. Hartzler 1976). Additionally, there seems to be an acute awareness of the differences between the dialects, which is sometimes a minor point of contention. For example, the speaker I worked with often mentioned that speakers of Central Sentani purposely change their language every few years because they want to differentiate from the other dialects. This

<sup>1</sup> The Japanese established several military bases on the norther coast of New Guinea during World War II, one of which in Hollandia [Jayapura] from 1942-44 (Hughes et al. 2021).

<sup>2</sup> Some sources (e.g. Eberhard, Simons, and Fennig 2020) call this family ‘Sentani’. In this grammar, however, ‘Sentanic’ and ‘Nuclear Sentanic’ will be used following Glottolog (Hammarström, Forkel, and Haspelmath 2021) in order to avoid confusion with the language proper.



also plays into other sociolinguistic factors: In the origin story of Sentani, the originator of the Sentani people, *Dohajo*, rides a giant snake from near Vanimo (PNG) to Lake Sentani, first landing on Asei island on the eastern side of the lake. From here the group gradually split up into several subgroups with their own *ondofolo* ‘chief’, but the Asei *ondofolo* retains a certain higher status based on seniority (Kaigere and Stanley 2011, 407).<sup>3</sup> The Asei group, speaking Eastern Sentani, thus also see themselves as stewards of the language, and any deviation from their dialect is seen as an effort from the other dialects to differentiate themselves, and in some cases undermine their linguistic authority.

## 1.2 Current linguistic situation near Lake Sentani

Sentani as a whole is not immediately endangered: 30,000 people (Eberhard, Simons, and Fennig 2021) of all ages speak and write it in addition to Papuan Malay (Anderbeck 2015; George Saad, pers. comm.), in addition to Sentani-language schooling being available for at least grades 1-3. Furthermore, there are some language revitalization efforts by local language centers (e.g. *Jubi*, *Portal Berita Tanah Papua No.1* 2016). However, the number of speakers is disproportionally spread over the dialects: The vast majority of Sentani speakers are from the Central dialect area, and the speaker I worked with states that virtually nobody still actively speaks the Eastern dialect, likely caused by its proximity to Jayapura and a number of unfortunate early deaths that caused a disruption in the linguistic transmission in Asei. Since it is impossible to gauge the actual language profile of the people in eastern Lake Sentani without carrying out a sociolinguistic survey, some secondary assessments must be made stemming from the speaker. There are two major clues to the likely decline of Sentani language usage: first, the fact that the speaker only spoke Papua Malay with relatives on the phone, and second that he states that he has not spoken Sentani since the death of his sister, who is claimed to have had much expertise in the language. Several exploratory works have been published on both the Eastern dialect (Cowan 1952a; 1952b; 1965) and especially the Central dialect (D. Hartzler 1976; M. Hartzler 1976; 1986; 1983; Mehuwe, Hartzler, and Hartzler 1993), there is very little information available about the Western dialect, with no works published and not enough data available to make an accurate dialectal comparison. Therefore, virtually all dialectal comparison in this sketch grammar is between the Eastern and Central dialects.

## 1.3 Methodology

This grammar sketch is mainly based on work done with a single speaker, Gershon Kaigere,<sup>4</sup> who has been living outside of a Sentani language context for a substantial time. Thus, several additional considerations to ‘regular’ documentation, detailed in the following section, had to be made to ensure the quality of the data, as well as working with the speaker to improve his linguistic confidence and ability.

### 1.3.1 The data & data collection

The data used as a foundation of this sketch grammar were collected with one speaker of Sentani in Leiden, the Netherlands, in the period between September 2020 and May 2021. It

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<sup>3</sup> This article only contains an abbreviated version of the story, but the unpublished manuscript by Kaigere (n.d.) gives a more detailed overview, including a chronology and more place names

<sup>4</sup> Gershon has given explicit permission for his name being used in this work.

consisted of weekly visits of about two hours to the speaker's home, reading and/or translating stories, discussing semantics, or eliciting lexemes and paradigms (for a discussion of types and strategies of elicitation see section 1.3.2). The reason I conducted the fieldwork in the Netherlands rather than at the Sentani Lakes was due to the impossibility of foreign travel during the COVID-19 pandemic. Due to this pandemic, I took extra care to conduct the sessions in a safe manner, which included attentive health monitoring for both myself and the speaker, keeping distance, as well as postponing the sessions when cases spiked, e.g. for several weeks in December 2020.

While I usually broadly planned the sessions, e.g. checking phonemes, elicitation and discussion of some semantic domain, translation, etc., often with a sheet of questions or topics,<sup>5</sup> I allowed a loose structure in order to create a natural flow, which significantly increased the amount of valuable data collected (see section 1.3.2 below).

The two stories used in this sketch grammar (see Appendix A), which were previously written down by other authors; one (Cowan 1965) in the Eastern Dialect, and one (Onde et al. 1979) in the Central Dialect. They were first read aloud by the speaker, which was recorded. Subsequently, the speaker and I went through the text line by line, where he translated each line and gave corrections where necessary. The corrections were in most cases either a mistake in the original orthography<sup>6</sup> or substituting a word for a more commonly used one in the Eastern Dialect. While in the vast majority of cases there were already recorded instances of these words, if there were any unrecorded ones they would be noted and included in the following session(s) in order to not interrupt the translation workflow. In order to best facilitate the speaker's linguistic abilities, the speaker translated the Sentani text into Malay, which I subsequently translated to English. Of the stories, the first is the biblical story of the Prodigal Son (Luke 15:11-32), which was written down in the Eastern Dialect by Cowan (1965), and the second is a traditional story about *Ebalā Jakali*, a folk hero trickster who is the main character of several stories (Cowan 1952b), which was originally written down in the Central Dialect, but adapted to the Eastern Dialect during the translation process.

All sessions were conducted in a mix of Dutch and Malay as contact languages.<sup>7</sup> In the case of reading stories, discussing semantics and elicitation, the sessions were recorded on audio and video using a Sony HDR-CX625 Camcorder and a Sennheiser MKE 400 attachable microphone. While the video recorder was planned to be set up to capture both the mouth and hands, there are several recordings where the former was not accurately captured due to the positioning of the recorder. The recorded video files were converted to .mp4 files using Windows Video Editor as well as a separate, audio-only .wav file using Audacity, which were consequently stored in a personal and secure OneDrive.<sup>8</sup> The total of recorded data is around 8 hours, but it must be emphasized that the amount of Sentani language data is relatively low in the majority of these recordings. The recordings were subsequently transcribed and

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<sup>5</sup> This sheet was usually kept by the speaker in order to go over and (re)consider what was discussed that session.

<sup>6</sup> The texts were read and translated from their originally given orthography, but I have updated them to the orthography used in this sketch. The corrections in the original mostly were regarding the removal of spaces for clitics.

<sup>7</sup> The speaker expressed an explicit dislike of the term 'Indonesian' or 'Bahasa Indonesia' and preferred (Indo-)Malay. While I mainly spoke Standard Indonesian, the speaker spoke Papua Malay (see Kluge 2014), to which I tried to adapt in cases where there were structural differences.

<sup>8</sup> The data will be uploaded to Kaipuleohone Language Archive hosted at the University of Hawai'i at some point in the future.

translated in ELAN. In the early stages of the analysis, each segment was then imported into an Excel master sheet, and later the ELAN files were imported into a FLEx database. In total, excluding the stories, there are around 1200 transcribed utterances, ranging from single words to short sentences, with many repetitions.

The ample periods between recording sessions allowed me to transcribe and briefly analyze the previous sessions, and prepare the next session based on this. This was a large boon, since it allowed me to analyze not only what linguistic areas to pursue further, but also to assess what stimulated the speaker's linguistic ability, and, crucially, what did not (further detailed in section 1.3.2 below). Additionally, I used information from the works published on Sentani in the past both to prepare further areas of inquiry as well as to corroborate analyses in this sketch grammar. I emphatically note that none of the analyses presented in this work were given without testing them either to/with the speaker directly, or sourcing corroborating evidence from the previously data collected by myself. However, it must also of course be emphasized that the collected data are from a single speaker who has been living outside of his linguistic context for several decades.

Initially, I tried to come to an agreement with the speaker about monetary compensation, he adamantly refused any money whenever I raised the point, stating that speaking and working with the language was enough for him. Thus 'compensation' only consisted of giving the speaker bound copies of all Sentani-language material I have found, as well as helping out with small (technological) issues around the house such as setting up an internet connection. The speaker signed an informed consent form (formulated in understandable language) which was scanned and is stored in the aforementioned OneDrive.

### 1.3.2 The speaker, his language attrition, and its effects on this sketch

As stated above, the data were collected with a single speaker of the Eastern Sentani dialect living in Leiden, the Netherlands. He has been living in the Netherlands since 1962, before which he was already working as a medical professional in mainly non-Sentani language contexts. Sentani is his first language, being born on Pulau Ase [Asei Island], but he was only fully immersed in the language context until about nine or ten years old. After this, he moved to nearby Hollandia (now Jayapura/Port Numbay) to pursue further education, and consequently worked in healthcare in Hollandia and the surrounding regions. His emigration to the Netherlands in 1962 was not planned to be permanent, as he was only supposed to go there for further education, with a supposed return in 1963. Due to the hostile socio-political environment that occurred after the withdrawal of the Dutch government from western New Guinea, he has not been able to return. This lack of socio-cultural and linguistic context for Sentani, in combination with the bilingualism means that he has had few chances to speak Sentani outside of a few words for decades.

At the beginning of the fieldwork, I quickly noticed that production of lexical items posed the main challenge to the speaker, while inflection, paradigms, and their explanation were much easier: The speaker showed immediately that he had a keen understanding of not only the semantics in Sentani morphological structure and function words, but also how these may differ from Dutch and/or Malay. Understandably, the confrontation of not being able to recall certain words in his first language was emotional and frustrating, so I quickly moved away from asking for direct translations. Rather, I tried to explore semantic domains and phonological contexts with the speaker, prompting things such as "are there other things like this?", "what else is

there to eat?”, or “are there any words that sound like this?” and “are there any words that start with this sound?”. This proved to be even more effective than visual stimuli (pictures), since the (semi-)free association meant he was less restricted in word choice. When working through the stories, there was not a single instance in which the speaker did not know how to translate a specific lexical item, and many of them, e.g. *toboni* ‘beads, currency, often given as a bride price’, prompted extensive cultural explanations of their place and function in daily life.

Thus, the speaker has abundant cultural and sociolinguistic knowledge, but shows heavy signs of language attrition. As laid out above, his passive linguistic knowledge as well as his event and concept construal show confidence and is generally corroborated by the other available data, but active production is a much larger challenge.<sup>9</sup> In this, he follows the generally established pattern in language attrition, meaning the areas that ‘remain’ can be taken as valid linguistic judgements (see Hutz 2004 and references therein). I am keenly aware of the possible problematic nature of the data that I collected as a result of this, i.e. the relatively low amount of natural speech, which I took into account in each step of the analysis.

## 2 Phonology

### 2.1 Introduction

The Sentani phoneme inventory consists of 7 vowels and 11 consonants. Sentani syllables are generally open, consisting of V or CV, but some consonants may appear in the coda. Stress is chiefly penultimate, but weight-sensitive. Consonants and vowels are discussed in sections 2.1.1 and 2.1.2, respectively. There is a relatively complex system of allophony and allomorphy in Sentani, so in order to keep things clear, these sections only present the phonemes and their minimal pairs, and all their phonological operations are detailed in section 2.1.3. The syllable is further detailed in section 2.2, and stress is discussed in section 2.3. Finally, section 2.4 discusses the orthography used in this grammar sketch. Although the analysis here is based only on data for which recordings were available, i.e. my own field recordings, several other sources (Cowan 1952; 1965; M. Hartzler 1976; D. Hartzler 1976; Elenbaas 1999) were used to corroborate data and in some cases theoretical underpinnings to the analysis.

Table 1 and Table 2 provide an overview of the consonant and vowel inventories, respectively:

	Bilabial	(Post)Alveolar	Palatal	Velar	Glottal
<b>Plosive</b>	p	t		k	
<b>Nasal</b>	m	n			
<b>Fricative</b>	f	s			h
<b>Approximant</b>		l	j	w	

Table 1 Sentani consonant phonemes.

	Front	Central	Back
<b>High</b>	i		u
<b>Mid</b>	e	ə	o
<b>Low</b>	æ	a	

Table 2 Sentani vowel phonemes

<sup>9</sup> It must be noted that his (active) language skills have exponentially improved since the start of the fieldwork.

### 2.1.1 Consonants

The consonants in Sentani consist of three plosives, two nasals, two fricatives and three approximants, which will be discussed per group. The three plosives, [t], [k] and [p], are very high in frequency, occur in every environment, and have several allophones each (see section 2.1.3). The following table gives minimal pairs for the three plosives:

	Phonetic form	Underlying form	Translation
<b>Initial</b>	/p/ [pu]	/pu/	<i>pu</i> ‘water’
	[to]	/to/	<i>to</i> ‘man, person’
	/t/ [‘te.jæ]	/tejæ/	<i>tejæ</i> ‘I’
	[‘we.jæ]	/wejæ/	<i>wejæ</i> ‘you’
	/k/ [ka]	/ka/	<i>ka</i> ‘fish’
	[wa]	/wa/	<i>wa</i> ‘you (sg.)’
<b>Medial</b>	/p/ [‘o.bo]	/opo/	<i>obo</i> ‘pig’
	[‘o.ɣo]	/oko/	<i>oko</i> ‘shoulder’
	/t/ [‘mbə.ra]	/mbə=ra/	<i>mbəra</i> ‘from where?’
		where=FROM	
	[‘mbə.na]	/mbə=na/	<i>mbəna</i> ‘where at?’
		where=AT	
	/k/ [‘a.xa]	/aka/	<i>aka</i> ‘older brother’
	[‘a.na]	/ana/	<i>ana</i> ‘mother’

Table 3 Sentani plosives minimal pairs.

Table 4 below gives the minimal pairs for the nasal phonemes in Sentani.

	Phonetic form	Underlying form	Translation
<b>Initial</b>	/m/ [mo]	/mo/	<i>mo</i> ‘just’
	[jo]	/jo/	<i>jo</i> ‘village’
	/n/ [na]	/na/	<i>na</i> ‘s/he, they’
	[ta]	/ta/	<i>ta</i> ‘I’
<b>Medial</b>	/m/ [imæ]	/imæ/	<i>imæ</i> ‘house’
	[ikæ]	/ikæ/	<i>ikæ</i> ‘leech’
	/n/ [‘a.na]	/ana/	<i>ana</i> ‘mother’
	[‘a.xa]	/aka/	<i>aka</i> ‘older brother’

Table 4 Sentani nasal minimal pairs.

The nasals, /m/ and /n/, although relatively frequent, are extremely susceptible to their phonological environment, especially consonants. Although there is a number of conditions in which the underlying form of the nasal is obscured, a single nasal phoneme, \*/N/, cannot be presupposed for present-day Sentani, since both [m] and [n] appear in unrestricted, lexically determined, conditions, such as word-initially or intervocally. The variation is further detailed in section 2.1.3.

Because of its relatively low frequency, a minimal pair could only be found for word-initial /f/, with a near-minimal pair for word-medial position:

	Phonetic form	Underlying form	Translation
<b>Initial</b>	[fa]	/fa/	<i>fa</i> ‘young’
	[wa]	/wa/	<i>wa</i> ‘you (sg.)’
<b>Medial</b>	[afæw]	/afæw/	<i>afæw</i> ‘language’
	[aɦaw]	/aɦaw/	<i>ahaw</i> ‘far’

Table 5 /f/ (near-)minimal pairs.

Table 6 gives the minimal pairs for the phoneme /ɦ/:

	Phonetic form	Underlying form	Translation
<b>Initial</b>	[ˈfi.næ]	/ɦinæ/	<i>ɦinæ</i> ‘who’
	[ˈni.næ]	/ninæ/	<i>ninæ</i> ‘already’
<b>Medial</b>	[ˈmo.fi ˈmo.fi]	/mohi-mohi/	<i>mohi-mohi</i> ‘dirt’ <sup>10</sup>
	[ˈmo.ni]	/moni/	<i>moni</i> ‘hunger’

Table 6 /ɦ/ minimal pairs.

/ɦ/ occurs regularly throughout the data, but is tightly connected to the highly infrequent /s/. This is because historically \*/s/ turned into [h] in all environments except following a nasal, in which case it remained as [s] (1).

	Phonetic form	Underlying form	Translation
(1)	[a.ˈwan.si]	/awansi/	<i>Awansi</i> ‘PN’

There are three approximant phonemes in Sentani: /l/, /j/ and /w/. Where /l/ is relatively infrequent in lexemes, and only word-medially, it appears frequently in the verbal complex due to the indicative mood marker *-le* (see section 4.2.5):

	Phonetic form	Underlying form	Translation
(2) a.	[ˈkxə.lu ˈo.mi]	/kəlu omi/	<i>kəlu omi</i> ‘children’
b.	[a.di.lə.ˈwo.le]	/adilə-wo-le/ gather-IMPF-IND	<i>adiləwole</i> ‘...[he] gathered [his things]...’

The glides /j/ and /w/ are the only consonants found without variation in all three positions, word-initial, medial, and final:

	Phonetic form	Underlying form	Translation
<b>Initial</b>	/w/ [wi]	/wi/	‘river’
	[fi]	/fi/	‘sago’
	/j/ [ja]	/ja/	‘day, rain’
	[wa]	/wa/	‘you (sg.)’
<b>Medial</b>	/w/ [ə.ˈwə.le]	/ə-wo-le/ go-IMPF-IND	‘s/he is going’
	[ə.ˈrə.le]	/ərə-le/ walk-IND	‘s/he walks’
	/j/ [ˈə.jə]	/ə-j/ go-2SG.SBJ	‘go! (imp.)’
	[ˈə.ɦə]	/əɦə/	‘yes’

<sup>10</sup> This is a lexicalized form and thus does not occur without reduplication.

<b>Final</b>	/w/	[a.'faw]	/afaw/	<i>ahaw</i> 'far'
	/j/	[møj]	/moj/	<i>moj</i> 'after'

Table 7 /j/ and /w/ minimal pairs

### 2.1.2 Vowels

There are 7 vowel phonemes in Sentani. In opposition to the consonants, they vary relatively little and thus often function as the key to uncovering underlying suffixes in the verbal complex. There is very minor variation in the exact phonetic realizations of the vowel quality, e.g., /æ/ realized as [æ~œ], but these do not show any patterned distribution and are not differentiated by the speaker, and I therefore do not take them to be meaningful. Although vowels may be lengthened to indicate prosodic emphasis, there is no phonemic or lexical distinction between short and long vowels.

	Front	Central	Back
High	i		u
Mid	e	ə	o
Low	æ	a	

Table 8 Sentani vowel phonemes, repeated from above.

Though there is no evidence to propose a complementary distribution of the vowels, some combinations, all of which include /u/, have not been attested. However, because /u/ is by far the least frequent vowel, this seems to be a data issue rather than a phonological interaction. (3) presents an incomplete list of monophonemic minimal pairs (3) as well as several other minimal pairs (3b-d):

	Phonetic form	Underlying form	Translation
(3) a.	[i]	/i/	<i>i</i> 'fire'
	[ə]	/ə/	<i>ə</i> 'and'
	[o]	/o/	<i>o</i> 'tree, stick'
	[a]	/a/	<i>a</i> 'word'
	[u]	/u/	<i>u</i> 'body'
b.	[ 'me.jæ]	/mejæ/	<i>mejæ</i> 'we (incl.)'
	[ 'mə.jæ]	/məjæ/	<i>məjæ</i> 'you (pl.)'
c.	[ 'mæ.xo]	/m-æko/ 1PL.POSS-father	<i>mæko</i> 'my/our father'
	[ 'mo.xo]	/moko/	<i>moko-</i> 'to make'
d.	[jæ]	/jæ/	<i>jæ</i> EMPH
	[ja]	/ja/	<i>ja</i> 'day, rain'

Although there is no monomorphemic minimal pair in the data to distinguish /e/ and /æ/, there is strong evidence from the verbal complex for this distinction: when the emphatic marker *jæ* EMPH is placed after the verb (see section 4.4.2 below), the /j/ is removed and the last vowel of the verb is replaced by [æ]. Thus, there is a semantic difference between [e] and [æ] as the last vowel of the verb (4).

	<b>Phonetic form</b>	<b>Underlying form</b>	<b>Translation</b>
(4) a.	[ʰa.bo.'ko.xe]	/ha-po-ko-kə-le/ take.along-strike-PLU-PST-IND	'[You] have hit [me].'
b.	[ʰa.bo.'ko.xæ]	/ha-po-ko-kə-le jæ/ take.along-strike-PLU-PST-IND EMPH	'[You] have <i>hit</i> [me].'

### 2.1.3 Allophony and allomorphy

The stops, /p/, /t/ and /k/, show by far the most allophony, which can best be described as semi-free variation: in isolation or careful speech the phonemic voiceless plosives appear, but intervocalically the voiced and fricativized forms are far more frequent. In the case of /p/, [p] only appears word-medially in loanwords, whereas it is only found in word-initial position in words native to Sentani.

<b>Phoneme Variants</b>	
/p/	[p~b~β]
/t/	[t~d~r]
/k/	[k~kx~x]

Table 9 Sentani plosives and their allophones.

Note that, since phonological rules function across word boundaries, although irregularly and only in fast speech, the variation can also be seen at the onset of the first syllable. Table 10 gives examples of these variations and their position in the word, although not all positions are covered in the data. For the velar plosive, /k/, the fricative variant appears both voiced and unvoiced, [x~ɣ], although the latter variant is extremely infrequent. Note that these examples only showcase the semi-free variation, not the specific conditions which determine the appearance of one particular allophone.

	<b>Phonetic form</b>	<b>Underlying form</b>	<b>Translation</b>
<b>Initial</b>	[ʰte.jæ]~[ʰde.jæ]~[ʰre.jæ]	/tejæ/	<i>tejæ</i> 'I'
	[ʰkə.lu]~[ʰkxə.lu]~[ʰxə.lu]	/kəlu/	<i>kəlu</i> 'son'
	[pu]~[βu]	/pu/	<i>pu</i> 'water'
	[ʰbu.lu]	/pulu/	<i>pulu</i> 'hole'
<b>Medial</b>	[ma.'taj]	/m-ataj/ 2PL.POSS-knowledge	<i>mataj</i> 'your knowledge'
	[di.'kæ.da]	/tikə=ra/ DEM.DIST=FROM	<i>tikera</i> 'from yonder'
	[m.'bə.ra]	/mbə=ra/ where=FROM	<i>mbera</i> 'from where'
	[u.'kə.te]~[u.'kxə.te]~[u.'xə.te]	/ukə-te/ tell-1SG.SBJ.FUT	<i>ukəte</i> 'I will tell'
	[pa.'pe.da]	/papeda/	<i>papeda</i> 'cooked taro'
	[ʰo.bo]~[ʰo.βo]	/opo/	<i>obo</i> 'pig'

Table 10 Variable phonetic realizations of /p/, /t/, /k/



There is one environment, however, where a single variant always appears: when the preceding syllable ends in a nasal, the plosive is always voiced. For /t/ and /p/, these variants are already present in the alternation in (5), but for /k/ the additional variant /g/ appears (5). Additionally, the nasal assimilates to the same position as the plosive.

	<b>Phonetic form</b>	<b>Underlying form</b>	<b>Translation</b>
(5) a.	[nə.xən.'dəj]	/nəkəntəj/	<i>nəkəndəj</i> ‘mosquito’
b.	['kam.bu]	/kampu/	<i>kambu</i> ‘root’
c.	['mæŋ.gə]	/mænkə/	<i>mænggə</i> ‘girl’

Note that these word forms are the result of a historical vowel elision process where vowels after a nasal may be deleted if it is of the same quality as the previous vowel or no previous vowel is available, and, subsequently, the nasal assimilating in location to the consonant it is now next to. For example, the historical formation of (5) is as follows: \**mænækə* > /mænkə/ > ['mæŋ.gə]. This process is further detailed in section 2.2.1.

In some words, in isolation, a glottal stop infrequently appears at the end, e.g. [pe]~[peʔ] ‘two’. Hartzler (1976, 73) analyzes this as an allomorph of /k/, but since it appears so infrequently and I could not find any instances in which its presence or absence had any semantic impact. Additionally, it contradicts the possible syllable types (see section 2.2). Therefore, I do not include it in the allophone set of /k/.

Since there are many phonetic fricatives that arise from phonological operations, it is important to distinguish the phonemic position of the two underlying fricatives, /f/ and /fi/.

/f/ may initially seem like a candidate for a lenited form of the stop /p/, but it appears without variation in contexts that make this impossible, as well as being less restricted by other phonological rules that apply to (lenited) stops such as assimilation. (6) and (6) show /f/ appearing word-initially and word-medially, respectively, without (possible) variation. Additionally, (6c) shows /f/ following a nasal, where the nasal is homorganic, but /f/ remains unvoiced. Since the stops are always voiced when following a nasal, this is evidence for /f/ as a separate phoneme.

	<b>Phonetic form</b>	<b>Word</b>	<b>Translation</b>
(6) a.	[foj]	<i>foj</i>	‘good’
b.	[on.do.'fo.lo]	<i>ondofolo</i>	‘chief’
c.	[əm.'fæw]	<i>əmfæw</i>	‘banana’

As noted in section 2.1.1 above, [fi] and [s] are closely connected since the former is the result of a historical phonological change from the latter: /s/ changed into /fi/ in every environment except when following a nasal, in which case it remains /s/. This change is easy to detect since it is restricted to the Eastern Dialect and in part to the Central Dialect; Cowan (1965) notes that in the Western dialect [s] appears in each case of [fi] in Eastern Sentani, meaning that \*/s/ must have been the phoneme historically. This is easily seen in the name for one of the islands in Lake Sentani: WSet. *Asej* and ESet. *Ohəj*, and this analysis is included in Gregerson and Hartzler’s (1987) reconstruction of proto-Tabla-Sentani phonology. It is at this point difficult to pinpoint when exactly this change took place, but since it is present in the Eastern and Central Dialect, although not in all cases in the latter, but not in the Western Dialect, it must be relatively recently, i.e. after the split of Sentani-Nafri, and after Dialects started to diverge.

As mentioned above, the nasals, /n/ and /m/, are prone to allophony based on the surrounding consonants. Most variation occurs word-finally: both nasals in word-final position freely vary when the word is uttered in isolation, e.g. /n/ can word-finally be realized as [n~ŋ], and /m/ as [m~n~ŋ], but there are certain environments in which this variation is restricted, although this is a tendency rather than a strict phonological rule:

/m/ most frequently appears as [m] word-finally (7a), but if the following word starts with a vowel (7b) or a nasal (7c), it appears as [ŋ]. If the following word starts with /t/, /m/ is realized as [n] (7d).

	<b>Phonetic form</b>	<b>Underlying form</b>	<b>Translation</b>
(7) a.	[ɦa.'mam]	/ɦamam/	<i>ɦamam</i> 'food'
b.	[ɦa.'maŋ a.no.ko.'xan.de]	/ɦamam ano-ko-kə-an-le/ food eat-PLU-1PL.SBJ-IND	<i>ɦamam anokokande</i> 'we have eaten'
c.	['te.jæ ɦa.'maŋ 'ninæ a.no.ko.'xa.le]	/tejæ ɦamam ninæ ano-ko- kə-a-le/ PRO:1SG food already eat- PLU-PST-1SG.SBJ-IND	<i>tejæ ɦamam ninæ</i> <i>anokokale</i> 'I have already eaten'
d.	['jo.yu xa.'ban 'taj.nə mə.'ye]	/joku kabam taj=nə m-ə-kə- le/ dog big PRO:1SG.POSS=IN VENT-go-PST-IND	<i>joku kabam tajnə məke</i> 'A big dog came to me'

/n/ may appear as [n~ŋ] word-finally. However, in isolation, the variant [ŋ] is by far the most frequent, and [n] always appears when the word ends on /n/ due to elision of the final vowel (see section 2.2.1 below), i.e. /nanəmənnə/ > [na.'nə.mən], but not \*[na.'nə.məŋ~m]. Gregerson and Hartzler (1987, 14–15) propose that word-final nasals are a reflex of the Proto-Tabla-Sentani general final nasal \*-N, and state that, in Central Sentani, it is always realized as [m] in isolation. However, in my data for Eastern Sentani there are certain words that never appear with a final [m] (8a-b), whether in isolation or not, and even influence the realization of other word-final nasals (8c). Therefore, although this may historically have been the case, the appearance of word-final nasals cannot be subsumed under a single phoneme in present-day (Eastern) Sentani, as proposed by Gregerson and Hartzler (ibid.).

	<b>Phonetic form</b>	<b>Underlying form</b>	<b>Translation</b>
(8) a.	[kən.'diŋ]	/kəndin/	<i>kəndin</i> 'small'
b.	['kə.lu xən.'diŋ row.'ka.le]	/kəlu kendin tow-ke-a-le son small take-PST- 1SG.SBJ-IND	<i>kəlu kəndin towkale</i> 'I cradle my small son'
c.	[ro.'mi.jæ xən.'diŋ xa.'baŋ]	/to mijæ kəndin kabam/ man woman small big	<i>to mijæ kəndin kabam</i> 'big and small people'

/n/ appear as [n] when following /j/:

	<b>Phonetic form</b>	<b>Underlying form</b>	<b>Translation</b>
(9)	['maj.na]	/maj=na/ PRO:2PL.POSS=AT	<i>majna</i> 'at you all'

Thus, /m/ and /n/ are both influenced by their environment, and they have quite a lot of overlap in their surface realizations, but their distribution is somewhat different: /m/ surfaces as [m~n~ŋ], while /n/ surfaces as [n~ŋ~ɲ].

/l/ appears as [t] when following the glide /j/, which is in turn generally elided (10a). In some cases, however, the glide remains, which shows that it is an ongoing phonological change since the glide is fully deleted in the Central Dialect (e.g. D. Hartzler 1976, 37). If /l/ follows /w/, it assimilates and appears as [w]. Note that it does not form a geminate, as the syllable boundaries remain preserved.

	<b>Phonetic form</b>	<b>Underlying form</b>	<b>Translation</b>
(10) a.	[ə.lə.'wa.te]	/ələ-aw-aj-le/ say-2SG.OBJ-3PL.SBJ-IND	<i>ələwate</i> 'They have spoken to you.'
b.	[mə.'xaw.we]	/m-ə-kə-aw-le/ VENT-go-PST-2PL.SBJ-IND	<i>məkawwe</i> 'You all came here'

Additionally, /l/ appears as [d] when following a nasal consonant, but this may be a secondary change from \*[t] due to assimilation, which was further detailed in section 2.2.1.

	<b>Phonetic form</b>	<b>Underlying form</b>	<b>Translation</b>
(11)	[ə.lə.ko.'xan.de]	/ələ-ko-kə-an-le/ say-PLU-PST-1PL.SBJ-IND	<i>ələkəkande</i> 'We said something.'

In some words where /t/ and /l/ appear intervocalically in sequence, metathesis takes place (12a), with an additional optional cooccurrence of /e/ as [ə]. The likely reason for this is to disambiguate from another verb form (12b), which would look identical had metathesis not taken place. In my data, this combination of consonants is the only instance of metathesis, and it is thus not likely that this is a regular, structural operation.

	<b>Phonetic form</b>	<b>Underlying form</b>	<b>Translation</b>
(12) a.	[ə.'le.re]~[ə.'lə.re]	/ə-te-le/ go-1SG.SBJ.FUT-IND	<i>ətele</i> 'I will go.'
b.	[ə.'rə.le]	/ərə-le/ see-IND	<i>ərəle</i> 'He sees.'

In contrast to the infrequency of /l/, the two glides /j/ and /w/ are highly frequent and play an important role in Sentani phonology. They occur both in many lexemes and are very prominent in the pronominal affixation paradigms, and are the only consonants besides nasals allowed to appear in the syllable coda. Contrary to the nasals, however, they are not as heavily influenced by their phonological environment and generally appear as [j] and [w]. As noted above, when a nasal follows /j/, it assimilates to [ɲ]. However, optionally /j/ may subsequently be elided as well (13a). The second variant of /j/ is [ɟ], which appears when following /i/ or /j/, and is thus a dissimilation. Note that for the latter, the rule occurs across word boundaries (13b).

	<b>Phonetic form</b>	<b>Word</b>	<b>Translation</b>
(13) a.	[ 'aj.ɲu]~[ 'a.ɲu]	<i>ajnu</i>	'Stand up!'
b.	[o.'həj ɟo]	<i>ohəj jo</i>	'Asei village'

In (13a), the underlying form is /a-j-nu/ ‘take-2.SBJ-REFL’, where the juxtaposition of the second person subject suffix *-j* and the nasal of the reflexive suffix *-nu* lead to the interaction resulting in [jɲ]~[ɲ].

There is one case (14) which features [ɲ] but does not seem to be in the correct environment to warrant this. However, Hartzler (1976, 74) gives this word as CSet. [oi.ɲo] /oijo/, meaning that the lack of /i/ may be due further phonological developments in Eastern Sentani. As mentioned for /j/ preceding /l/ above, the deletion of /i/ or /j/ preceding a consonant occurs in other conditions as well. Additionally, some verb stems having an optional but not frequent /j/ in the verb stem, e.g. *əɾə(j)-* ‘to see’. All of this shows that the deletion is an ongoing phonological process and is still productive.

(14) [‘o.ɲo] *odjo* ‘chicken’

In the data, /w/ does not show any variation whatsoever, but it could be expected that it may appear as [u] due to resyllabification. This process is, however, rather rare contemporarily in Sentani and generally only occurs on the verb due to affixation creating word structures incongruent with word-formation rules. In most cases the incongruity is solved by removing a vowel and/or the merging of two affixes.

Although vowels themselves do not seem to influence their direct surroundings with the exception of /i/ preceding /j/, the interaction of syllables in verbal affixes results in certain vowels appearing above others. However, this is usually not governed by vowel quality, but rather by the order of the affixes: For example, if the order is /-kə-le/ PST-IND, the resulting surface form is [ke], but if the order is /-kə-a-le/ PST-1SG.SBJ-IND the form is [kale]. This occurs most frequently on the affixes, but it is not restricted to this; the final vowel of a verb stem also undergoes this assimilation e.g. /ələ-a-le/ speak-1SG.SBJ-IND ‘I speak’ surfaces as [ə.'la.le]. Besides this, there is optional vowel harmony, where any vowel may harmonize with one of its surrounding vowels. While it is optional in all cases, it occurs more frequently in fast speech or a sentence context than in isolation, and is much more frequent in the verbal complex than other words. Of the vowels, /ə/ is by far the most susceptible to the vowel harmony, assimilating by far the most often to its surrounding vowels. Conversely, other vowels rarely assimilate to [ə].

Additionally, there is a set of interacting phonological rules where, among other things, vowels are deleted. These rules also interact with the syllable structure, which will be further discussed in section 2.2.1. Therefore, based on the proposal by Hartzler for Central Sentani (1976, 77–79), I propose the following ruleset for Eastern Sentani:

1. A vowel may be deleted if the consonant in the onset of the syllable is a nasal, and the preceding vowel is of the same vowel quality.
2. If a nasal and a voiceless stop or /l/ appear next to each other, the nasal assimilates to the homorganic position and the stop becomes voiced or /l/ becomes the voiced stop [d].
3. In fast speech a stop may optionally assimilate fully to the preceding nasal.

To illustrate both the process and the variable nature of the rules above, we can take the case in (15):<sup>11</sup>

	<b>Phonetic form</b>	<b>Underlying form</b>	<b>Translation</b>
(15)	[na.nə.'mən.də]~[na.nə.'mən.nə]~ [na.'nə.mən]	/na nəmə-n-le/ PRO:3 all-3SG.OBJ-IND	<i>nanəməndə</i> 'all together'

Here, /l/ assimilates to [d], as described above, following rule 2, making the environment suitable for rule 3. to take place; the final syllable can become [nə]. This in turn creates the appropriate conditions for rule 1. to take place, leading to the final form in which the final /ə/ is deleted. The fact that all three forms are possible and have been found in the data shows that although the rules require specific environments to take place, they are still optional. However, there are several words where the process has been lexicalized, such as *kambu* 'root', which I analyze as historically /kanapu/ > \*kanpu > ['kam.bu] 'root'. This shows that these rules have been productive for a long time, especially since the syllable \*CVC<sub>nasal</sub> has been postulated for proto-Tabla-Sentani (Gregerson and Hartzler 1987; further discussed below).

Besides contemporary variation and lexicalization on non-verbs, affixation on the verb shows that at least rule 1. and 2. are still fully productive without variation in some domains:

	<b>Phonetic form</b>	<b>Underlying form</b>	<b>Translation</b>
(16)	['te.jæ a ə.ləw.'kon.de]	/tejæ a ələ-w-ko-no-le/ PRO:1SG word say-E-PLU- 3SG.OBJ-IND	'I want to say something to him.'

In (16) the combination of the plural undergoer, third person object, and indicative mood suffixes, *-ko*, *-no* and *-le* respectively, creates an environment where both rules 1. and 2. can apply. To clarify, the third person object suffix contains a nasal, and the plural undergoer and third person object suffixes both have the same vowel, /o/. This means that the combination of the two, *-ko-no/* fulfills the conditions for rule 1. to apply, resulting in [kon]. Because of this, the /l/ of the indicative suffix now directly follows the nasal, *\*/ko-n-le/*, which means rule 2. can take place, resulting in the final form [konde]. Thus, the development of the underlying form to the surface form for (16) is as follows: /ələwkonole/ > *\*/ələwkonle/* > [ə.ləw.'kon.de]. (17) as well as a number of underived forms such as *mana* 'today' and *ana* 'mother', however, show that these rules are not without exception:

	<b>Phonetic form</b>	<b>Underlying form</b>	<b>Translation</b>
(17)	['te.jæ a u.ka.'na.le]	/tejæ a ukə-an-a-le/ PRO:1SG word tell- 3SG.OBJ-1SG.SBJ-IND	'I told him.'

In the case of the underived form it is most likely the idiosyncratic application of the ruleset, but for (17) it may also stem from the fact that the deleted vowel would result in the entire morpheme no longer being detectable, which would thus influence the semantics.

Finally, there is a historical rule in which word-final /ə/ is deleted:

4. Historically, word-final /ə/ is deleted if it follows a nasal consonant or a glide.

<sup>11</sup> Note, that this is a lexicalized form that no longer functions as a verbal form.

Although it seems that the rule is no longer fully productive, owing to the fact that there are many words ending in a nasal + /ə/, Cowan (1965, 10) noted that multisyllabic verb roots tend to drop word-final /ə/ when it is preceded by a glide or nasal, regardless of vowel quality of the preceding vowel. He, however, restricts this rule to verbal roots only. This restriction is most likely due to that the variation can best be observed in variable contexts, i.e., morphology, which is much less extensive and common on non-verbs. I, however, propose that this process took place on all words with a word-final glide-/ə/ combination historically, and that the variable application on verbs is a vestige of this. The main evidence for this is that there are virtually no instances of this word-final glide-/ə/ combination in the data, whereas there are many examples of a combination of a glide and different vowels. These four phonological rules are also important in the (historical) formation of closed syllables, discussed in section 2.2.1.

To summarize, Table 11 gives an overview of all the synchronically productive allophonies and their respective conditions:

Phoneme	Variants	Condition(s)
/p/	[p~b~β]	Free
	[b~β]	V_V C <sub>voiced_</sub> V
	[m]	C <sub>nasal_</sub>
/t/	[t~d~r]	Free
	[d~r]	V_V C <sub>voiced_</sub> V
	[n]	C <sub>nasal_</sub>
/k/	[k~k̂x~x]	Free
	[k̂x~x]	V_V
	[g]	C <sub>voiced_</sub> V
	[ŋ]	C <sub>nasal_</sub>
/m/	[n]	_# /n/ _ /n/ _ /t/
	[ŋ]	_# V _# C <sub>nasal</sub> _ /k/
	[m]	Else
/n/	[n~ŋ]	_#
	[ŋ]	_ /k/ _# /t/
	[m]	_ /p/
	[ɲ]	/j/_
	[n]	Else
/l/	[t]	/j/_
	[d]	C <sub>nasal_</sub>

	[w]	/w/_
	[l]	Else
/j/	∅~[j]	_l/
	∅	_n/
	[ɟ]	/i/_
	[j]	Else
V	∅	_V
V <sub>1</sub>	V <sub>2</sub>	V <sub>2</sub> C_ _CV <sub>2</sub>
V <sub>1</sub>	∅	V <sub>1</sub> .C <sub>nasal</sub> _

Table 11 Sentani Phoneme allophonies and their conditions

## 2.2 Syllables & Syllable structure

Sentani has a relatively small inventory of possible syllables: There are no consonant clusters, syllables have maximally one vowel, and codas are restricted to glides and nasals (see Table 12).

Syllable	Example	Word	Translation
V	['o.bo]	<i>obo</i>	'pig'
CV	[pu]	<i>pu</i>	'water'
CVC <sub>glide</sub>	[taj]	<i>taj</i>	'my'
CVC <sub>nasal</sub>	[kxa.'bam]	<i>kabam</i>	'big'

Table 12 Sentani syllable structure.

A Sentani prosodic word can minimally consist of a single syllable from any of these types, e.g., *a* 'word', *fi* 'sago', *waj* 'your (sg.)', and *pam* 'nothing', and maximally of six syllables, see e.g. (18).<sup>12</sup> For monomorphemic, i.e. underived, forms the maximum word length is three syllables, but the majority of monomorphemic forms are mono- or disyllabic.

- (18) *bele jo na to mbajrə əke*  
*bele jo na to mbaj=rə ə-kə-le*  
 DEM village PRO:3 man one=TO go-PST-IND

*əwnəhikəwnuke*  
 ə-w-nə-hikə-w-nu-kə-le  
 go-E-3SG.OBJ-say-3SG.SBJ-REFL-PST-IND  
 'One man from the village came and ordered him.'

When considering this from a mora-based perspective, prosodic words consist of minimally one and maximally eight moras (see Table 13), given that light syllables (C, CV) consist of one mora and heavy syllables (CVC<sub>glide</sub>, CVC<sub>nasal</sub>) consist of two. Mora's also form the basis of stress assignment in Sentani, which is further discussed in section 2.3. As above, a distinction must be made between underived and derived forms: (historically) underived forms (a-c in

<sup>12</sup> Elenbaas (1999, 58) gives the maximum number of syllables as seven, but these must be very rare as they do not appear in my data.

Table 13) consist of one, two and three mora's, whereas derived forms (d-h in Table 13) minimally contain two mora's and can be up to eight mora's.

	<b>Phonetic form</b>	<b>Word</b>	<b>Translation</b>	
(a)	[μ]	[pu]	<i>pu</i>	'water'
(b)	[μμ]	[hə.'ləm]	<i>hələm</i>	'much'
(c)	[μμμ]	[o.'no.mi]	<i>onomi</i>	'life, health'
(d)	[μμμμ]	[ɦa.bo.'xa.le]	<i>habokale</i>	'I have hit him'
(e)	[μμμμμ]	[a.no.ko.'xa.le]	<i>anokokale</i>	'I have eaten/drank it'
(f)	[μμμμμμ]	[row.kaj.'nə.le]	<i>rowkajnəle</i>	'They have found it'
(g)	[μμμμμμμ]	[mo.xow.bo.ka.'wa.le]	<i>mokowbokawale</i>	'I say to you'
(h)	[μμμμμμμμ]	[məw.ja.ka.law.'bo.ke]	<i>məwjakalawboke</i>	'They found it'

Table 13 Sentani Mora distribution

Some words that are contemporarily used as underived forms have more than three mora's, e.g. *akojkoj* 'traditional dance'. However, all of these forms are historically clearly based on derived forms and/or reduplication, showing that the restriction for formation of underived forms no longer seems productive, or at least not in these specific circumstances.

Although it is perfectly possible for a CV.V(C) sequence to occur within a word, and these do occur regularly, e.g. [a.bu.'a.xo] *abuako* 'traditional doctor/close relative', the data contains no instances of a V.V(C) sequence within a word. Across word boundaries, however, this sequence is frequent and requires no epenthetic consonant to resolve hiatus (19). Since several other aspects of Sentani phonological interaction take place across word boundaries, it is therefore difficult to establish V.V(C) as an impossible sequence within the word; its absence rather may be due to the dataset.

	<b>Phonetic form</b>	<b>Word</b>	<b>Translation</b>
(19) a.	[ 'me.jæ a ə.lə.ko.'xan.de]	<i>mejə a ələkokande</i>	'You (pl.) said something.'
b.	[ 'jo.ɣu 'ræ.ɲa 'ə.xe]	<i>joku tæjna əke</i>	'The dog came to me.'

The vast majority of syllables in Sentani are open, and the two closed syllables types,  $CVC_{\text{nasal}}$  and  $CVC_{\text{glide}}$  can be explained through historical developments, discussed in the following section.

### 2.2.1 Closed syllables

There are some words with syllables containing more than a single vowel and a consonant, i.e. CVC. The vast majority of these are closed syllables with a nasal or a glides in the coda. In some cases these are the result a set of productive phonological rules, but others are the result of historical developments. The first is a set of rules in which vowels may be deleted following a nasal if they are of the same quality as the vowel preceding the nasal, and the second is a historical rule in which the vowel /ə/ is deleted after a glides, both of which were discussed in section 2.1.3 above. Since consonant clusters are not allowed in Sentani phonology, it seems unlikely that either the two nasal phonemes may form a syllable by themselves, or that there are homorganic nasal + consonant clusters phonemically, and therefore they must be the result of the aforementioned ruleset.

The first ruleset is a good starting point, showing that a process of vowel elision is productive in the language, but it does not explain all instances of  $CVC_{\text{nasal}}$  and do not cover  $CVC_{\text{glide}}$  syllables. It is possible to suppose that all forms ending in  $CVC_{\text{nasal}}$  had the vowel pattern



required for rule 1., but this would require us to suppose that all the above forms adhered to, and subsequently lexicalized, the rules that we have seen to be somewhat variable contemporarily.

The existence of  $CVC_{\text{glide}}$  and especially  $CVC_{\text{nasal}}$  as underlying syllable structures in present-day Sentani cannot be argued against. Nonetheless, we can determine with some accuracy the developmental process, and can thus determine the historical depth of the phonological rules proposed here: Gregerson and Hartzler (1987, 15) propose with sufficient evidence that proto-Nuclear-Sentanic<sup>13</sup> had the syllable types \*V, \*CV, and \* $CVC_{\text{nasal}}$ . This means that, due to the absence of  $CVC_{\text{glide}}$ , rule 4. can only have taken place *after* the split of proto-Nuclear-Sentanic. Although there is very limited data available about Nafri, Sentani’s closest related language, it seems to also have  $CVC_{\text{glide}}$  syllables,<sup>14</sup> whereas cognate forms in Tabla do not have  $CVC_{\text{glide}}$ , e.g., Tabla *tə-*, Sentani *əraj* ‘to see’ and Tabla *datə məwə* vs. Sentani *məj* ‘come’ (Gregerson and Hartzler 1987, 19). This means that the process that gave rise to  $CVC_{\text{glide}}$  syllables can be determined as a feature of proto-Sentani-Nafri. Reversely, Cowan (1952a, 162) gives several forms for Demta, the language furthest from Sentani within the Sentanic family, which show several syllable types and word-formations not found in Sentani:

Demta		Sentani		Translation
<i>namguai</i> <sup>15</sup>	CVC.CCVC	<i>namə</i>	CV.CV	‘s/he/it’
<i>kikir</i>	CV.CVC	<i>hikə</i>	CV.CV	‘frog’
<i>komtou</i>	CVC.CVC	<i>kadu</i>	CV.CV	‘cheek’
<i>ngama</i>	CCV.CV	<i>mejə</i>	CV.CV	‘we’
<i>aip</i>	VVC	<i>əm</i>	CV	‘banana’
<i>ei</i>	VC	<i>aje</i>	V.CV	‘bird’
<i>ana</i>	V.CV	<i>a</i>	V	‘voice’
<i>pini</i>	CV.CV	<i>fi</i>	CV	‘sago’
<i>nép</i>	CVC	<i>nimə</i>	CV.CV	‘breast’

Table 14 Demta and Sentani words and syllable structure. Adapted from Cowan (1952a, 162).

The Demta forms, although in most cases clear cognates to the Sentani forms, indicate that the phonological developments proposed above cannot be applied to proto-Sentanic, at least initially. The fact that most Sentani cognates either have the same amount or fewer syllables may actually point to a process of simplification in proto-Nuclear-Sentanic, but this would require further research.

Thus, while all cases of  $CVC_{\text{glide}}$  syllables and many  $CVC_{\text{nasal}}$  syllables are due to historical resyllabification caused by vowel deletion, and these syllable types must thus be accepted as underlying, there are also productive phonological rules that create this resyllabification and these syllable types contemporarily. Due to the relatively little available historical data it is at this time not a useful endeavor to try to fully disambiguate which instances of (word-final)  $CVC_{\text{nasal}}$  are historical, lexicalized forms and which are due to the productive ruleset.

<sup>13</sup> They use the term “proto-Tabla-Sentani”, but in order to keep in line with the updated classifications, the above term is used in this grammar.

<sup>14</sup> Based on Arthur Capell’s fieldnotes on Nafri, archived at Paradisec (ID: AC2-OFNB101). Retrieved from: <https://paradisec.org.au/fieldnotes/OFNB.htm#OFNB101>

<sup>15</sup> <-i> here most likely refers to /-j/ in a non-intervocalic position and thus analyzed as a consonant.



In practice, the stress falls on the penultimate syllable of the vast majority of the words. However, due to the mora-based stress assignment, in some cases the stress falls on the ultimate syllable:

Phonetic form	Words	Translation
[kən.'dɪŋ]	<i>kəndin</i>	'small'
[ka.'bɑm]	<i>kabam</i>	'big'
[əŋ.'gɑj]	<i>ənggaj</i>	'ear'
[nə.'bɑŋ]	<i>nəban</i>	'nothing'
[fa.'ləm]	<i>faləm</i>	'head'
[nə.'xəj]	<i>nəkəj</i>	'sit (imp.)'
[hɔ.'noʝ]	<i>honoj</i>	'stand up (imp.)'
[nə.xən.'dəj]	<i>nəkəndəj</i>	'mosquito'
[hɔw.'mo]	<i>howmó</i>	'writing, drawing'
[ja.ko.'ba]	<i>jakobá</i>	'island'
[ke.'la]	<i>kelá</i>	'area'
[on.'sa]	<i>Onsá</i>	PN
[mæ.'hæ]	<i>məhécé</i>	'who'

Table 15 Sentani words with non-penultimate stress (non-exhaustive).

There are some restrictions to the rule of stress assignment to the syllable containing the penultimate mora: Stress *cannot* occur on the first syllable of a word, and is *preferably* not on a mora that is at a word's edge. When considering that Sentani feet are trochaic, it thus means that stress is placed on the first mora of the right-most foot of a word, if possible. Table 16 illustrates this system, showing mora's, feet division and stress assignment of some word forms.

	Phonetic form	Underlying	Translation
[μ]	[pu]	/pu/	'water'
[('μμ)]	[ 'o.bo]	/obo/	'pig'
	[bam]	/bam/	'not'
[μ('μμ)]	[o.'no.mi]	/onomi/	'life, health'
	[ka.'bɑm]	/kabam/	'big'
[(μμ)('μμ)]	[fia.bo.'xa.le]	/ha-po-kə-a-le take.along- strike-PST- 1SG.SBJ-IND	'I have hit (him)'
	[nu.'xɔj.bo]	/nu-ko-j-bo/ rest-do-2SG.SBJ- AU	'Sit down!'
[μ(μμ)('μμ)]	[a.no.ko.'xa.le]	/anə-ko-kə-a-le/ eat-PLU-PST- 1SG.SBJ-IND	'I have eaten it'
	[row.'kan.de]	/tow-ko-an-le take-PLU- 3SG.OBJ-IND	'I have found them'
[(μμ)μ('μμ)]	[hɔw.bo.'xa.le]	/hə-w-bo-kə-a-le hit-E-AU-PST- 1SG.SBJ-IND	'I have killed'

[(μμ)(μμ)(‘μμ)]	[row.kaj.ˈnə.le]	/tow-kə-aj-nə-le- take-PST-3PL.SBJ- 3SG.OBJ-IND	‘They have found it’
[μ(μμ)μ(‘μμ)]	[fo.bow.ko.ˈxa.le]	/ho-po-w-ko-kə- a-le hit-strike-E-PLU- PST-1SG.SBJ-IND	‘I have slaughtered’
[μ(μμ)(‘μμ)μ]	[a.no.ko.ˈxan.de]	/anə-ko-kə-an-le/ eat-PLU-PST- 1PL.SBJ-IND	‘We have eaten it’
[μ(μμ)(μμ)(‘μμ)]	[mo.xow.bo.ka.ˈwa.le]	/moko-w-bo-kə- aw-a-le/ do-E-AU-PST- 2SG.OBJ-1SG.SBJ- IND	‘I said to you’
[(μμ)(μμ)(μμ)(‘μμ)]	[məw.ja.ka.law.ˈbo.ke]	/m-ə-w-jakala-w- bo-kə-le VENT-go-E-find- 3SG.SBJ-AU-PST- IND	‘They found him/her/it’

Table 16 Non-exhaustive list of possible word formations, mora distribution, and stress assignment.

The table shows that stress regularly falls on the first mora of the right-most foot. If this foot consists of two light syllables, each having one mora, the stress is thus placed on the first syllable. If the foot consists of one heavy syllable, stress is assigned in a similar way, i.e., on the first mora, landing on the vowel, stressing the syllable as a whole. This works for the majority of word forms, but some run into problems: For example, in a disyllabic word consisting of a heavy and a light syllable, e.g., CVC.CV, stress cannot be assigned to the penultimate mora, since this is a consonant. In these cases, stress is then assigned to the final mora, showing that the rule for not stressing the first syllable is stronger than the preference of not having stress on the final mora. Conversely, if both syllables in the word are heavy, there is no such clash and stress can be assigned regularly to the penultimate mora, landing on the final syllable. To clarify, this restriction is specifically for disyllabic words where the first syllable is heavy, if the heavy syllable is not word-initial, e.g., CV.CVC.CV, the stress can be placed on the heavy syllable without any issues.

To summarize, stress in Sentani is assigned to syllable containing the penultimate mora, unless this is the first syllable of the word, in which case it is placed on the following syllable.

The last four forms in Table 15 show non-penultimate stress that cannot be explained by the regular stress pattern. While *Onsá* PN and *məhíé* ‘who’ can be explained by that personal names and function words more often behave differently than other word-types, *jakobá* ‘island’ and *kelá* ‘area’ cannot be explained this way. Although it is currently unclear, I suspect that these are historically complex forms and/or contractions.

In order to explain, at least in part, why heavy syllables have this influence on stress assignment, we must turn to the formation of the highly restricted CVC syllables to explain the current forms. As we have seen in section 2.2.1 above, there are two sets of rules that have led to the appearance of CVC<sub>nasal</sub> and CVC<sub>glide</sub> syllables. In both cases the original stress has not

moved, but rather the lexeme has resyllabified without changing the number of mora's. This can be proven contemporarily by creating contexts in which stress is moved, since, as we have seen above, stress is assigned on the word-level. This is difficult on non-verbs, since there is very little non-verbal morphology that can be used to create these contexts, but looking at verbs that show non-penultimate stress in one form can show that the stress assignment does in actuality follow the regular penultimate pattern, by adding additional suffixation. For example, while the basic imperative form *nəkəj* 'sit!' has ultimate stress, the more complex form *nəkəjbo* 'keep sitting!' follows the regular pattern and has penultimate stress. Initially it may seem that the stress is linked to the final syllable, but (22) shows that the regular stress pattern is observed in cases with additional morphology.

- (22) *na u kaban də əke nəkə'wole nə*  
*na u kabam də ə-kə-le nəkə-wo-le nə*  
 PRO:3 body big DEM GO-PST-IND sit-IMPF-IND then  
 'There he lived lavishly.' (lit. 'His body lives in a big way.')

This pattern, where atypical stress in the imperative verb form disappears with additional suffixation, is found in all instances where the imperative form is disyllabic, following the regular stress assignment rules. This does not necessarily mean that it applies to all disyllabic verb roots as some of roots (of varying length) always require additional morphology (23), making a disyllabic form impossible. This also means that ultimate stress can be excluded as a feature of the imperative.

- (23) *ho'bojko*  
*ho-bo-j-ko*  
 kill-AU-2SG.SBJ-PLU  
 'Kill!'

To summarize, the analysis can be distilled into three processes that explain both emergence of nasals and glides in the syllable coda, and the seemingly atypical stress assignment in some word forms. The processes are, chronologically ordered, as follows:

- A. Vowel deletion after nasals in from pre-Proto-Nuclear-Sentanic onwards led to the emergence of nasals in syllable codas, creating the syllable type  $CVC_{nasal}$ .
  1.  $CV_1C_{nasal}V_1 > CV_1C_{nasal}$ 
    - i. /kanapu/ > \*kanpu > ['kam.bu] 'root'
- B. The deletion of /ə/ after a glide or nasal in proto-Sentani-Nafri led to the emergence of glide in syllable codas, creating the syllable types  $CVC_{glide}$  and  $CVC_{nasal}$ .
  1.  $*CVC_{nasal/glide}V_ə > CVC_{nasal/glide}$ 
    - i. \**nəkən'dəjə* > /nəkən'dəj/ > [nə.xən.'dəj] 'mosquito'
    - ii. \**kən'diNə* > /kəndin/ > [kən.'diŋ] 'small'
- C. Regular penultimate stress is not reassigned in the forms resulting from either A. or B., creating surface forms with ultimate stress.
  1.  $(*)/CV.'CV.C_{nasal/glide}V/ > CV.'CVC_{nasal/glide}$

These three processes explain that forms that may seem to break the regular penultimate stress assignment pattern in Sentani, the forms are actually the result of (historical) phonological developments and underlyingly do follow the regular stress assignment. While it is difficult to pinpoint whether A. or B. has had the largest effect on the instances of  $CVC_{nasal}$ , comparative

data shows that A. must precede B., since the latter is proposed only from proto-Sentani-Nafri onwards.

Since there is little contemporary data on the Sentanic languages, and the historical sources discuss stress or mark it stress in their orthographies, it remains to be seen whether penultimate stress assignment is a feature of proto-Sentanic and thus of the Sentanic family as a whole.

#### 2.4 Orthographical conventions

Generally, the graphemes in the Sentani orthography used in this grammar sketch are based on the Indonesian alphabet (i.e. the Latin alphabet with the sound correspondences used in Indonesian orthography), supplemented by a few additional graphemes and digraphs where there is none available. One exception to this is the grapheme for /j/, which corresponds to <y> in the Indonesian alphabet, but for this sketch grammar, <j> is used instead, which corresponds to [j] in the Indonesian alphabet. The main reason for this is that the allophone of [j] occurs only very infrequently in a specific context (preceded by /i/), in which it is written with <dj> if the surrounding graphemes do not provide enough context for the correct pronunciations, e.g., in *odjo* ‘chicken’. Additionally, when reading texts that used Cowan’s (1965) orthography, it was never misinterpreted by the speaker. Therefore, in order to cover both allophones as well as emphasize its status as a consonant rather than a vowel, <j> was chosen as the corresponding grapheme.

A similar exception is /n/ realized as [ɲ]. Since the preceding consonant, /j/, gives enough clue for the pronunciation, it is unnecessary to use the digraph <ɲj>, e.g., *rowkajɲəle* ‘they have found something’ instead of \*<rowkajɲjəle>. While this is an aesthetic choice, it does not impact readability since there is no alternative realization for /n/ in this context.

If a phoneme is in a position where free variation is possible, e.g., phrase-initial /t/ realized as [t~d~r] or /k/ in an unrestricted position (see section 2.1.1 above) realized as [k~k̄x~x], the underlying phoneme is written, i.e., <t> and <k>, respectively. If, however, the condition allows only one allophone, e.g., /t/ after a nasal which may only be [d], the grapheme corresponding to this allophone is used. An exception to this is where the phonological condition is across word boundaries, e.g., with word-final nasals, in which case the underlying phoneme is used.

The accent aigu (´) is used to indicate stress on a word where it is not regularly assigned as described in section 2.3 above.

Lastly, personal names are distinguished from their non-name counterparts by capitalization of each element, e.g. *Kələw Nikiban* ‘PN’ versus *kələw nikiban* ‘Morningstar’ (lit. ‘spotless glimmer’), and exocentric or lexically opaque compounds are marked with a hyphen (-).

The orthographical choices were based on two considerations. Firstly, and mainly, it strives to write words as consistently as possible while allowing for the variant pronunciations. Secondly, it is based on the orthography used by the speaker, although admittedly somewhat loosely. As said, its main design function was to keep spelling as consistent and concise as possible, thus it is not necessarily designed for everyday use, especially since it contains some graphemes that are not familiar to most non-linguistics, such as <æ> and <ə>.

Where examples from a source other than the collected data are given, the orthographical conventions used by that author are copied.

Below is the full list of the graphemes and their corresponding phonological value:

Phoneme	Phonological Value	Grapheme
<b>Consonants</b>		
/p/	[p~b]	<p>
	[b~β]	<b>
/t/	[t~d~r]	<t>
	[d]	<d>
	[r]	<r>
/k/	[k~kx~x~y]	<k>
	[g]	<g>
/m/	[m]	<m>
/n/	[n]	<n>
	[ɲ]	<n>
	[ŋ]	<ng>
	[m]	<m>
/h/	[h]	<h>
	[s]	<s>
/l/	[l]	<l>
/j/	[j]	<j>
	[ɟ]	<dj>
/w/	[w]	<w>
<b>Vowels</b>		
/i/	[i~ɪ]	<i>
/u/	[u]	<u>
/e/	[e]	<e>
/ə/	[ə]	<ə>
/o/	[o~ɔ]	<o>
/æ/	[æ~œ]	<æ>
/a/	[a]	<a>
<b>Other</b>		
Stress		<ˈ>
Compound		<->

Table 17 Sentani Orthographical conventions

### 3 Nouns and the noun phrase

#### 3.1 Nouns

Nouns function typically as the heads of NPs and as the arguments in a clause. They are separated grammatically from other word classes because they can have and/or be possessors, they have a fixed referent, and they cannot take any suffixes. In fact, the only morphology nouns can take is infrequent possessive prefixes, and the locational clitics (see section 3.3.1), which can in turn attach to more word classes than just nouns. The majority of underived nouns in Sentani are disyllabic. Monosyllabic and trisyllabic nouns do occur with regularly, but no bare noun exceeds this length. Based on the possible morphology as well as syntactic and semantic restrictions, several classes can be distinguished. These classes are: Common nouns (section 3.1.1), mass nouns (section 3.1.2), proper nouns (section 3.1.3), kinship terms (section 3.1.4), and temporal/locational nouns and demonstratives (section 3.1.5).

Note that some nouns are (almost) homophonous with verb roots. However, there seem to be no synchronic processes of deriving nouns from verbs (or vice versa), and it does not necessarily mean that they are semantically related, although this is possible (24ab). In practice, however, verb roots appear rarely without verb-specific morphology,<sup>17</sup> meaning that ambiguous cases are virtually impossible. Lastly, there is a small number of nouns that were historically derived from verbs, such as *akojkoj* ‘traditional dancing’ from *akoj-* ‘tell a traditional story’.<sup>18</sup>

- (24) a. *hikæ* ‘leech’  
      *hikæ-* ‘to say’  
      b. *wali* ‘life’  
      *wale-* ‘to live’

##### 3.1.1 Common Nouns

Sentani common nouns are the most ‘basic’ word class in that they are least restricted. They can function as syntactic subject and object, be modified with adjectives, demonstratives, numerals, and locational clitics, and, with the exception of one (see below), they are optionally possessed. Unsurprisingly, common nouns are found in almost all semantic domains and vary phonologically. It also seems to be the only word class that incorporates loanwords (see e.g. *potol* in Table 18).

<i>ko</i>	‘coconut’
<i>moko</i>	‘mountain’
<i>nimbæ</i>	‘Sago tree trunk’
<i>kaja</i>	‘guard’
<i>mijæ</i>	‘woman’
<i>potol</i>	‘bottle’ < Ind. <i>botol</i> ‘bottle’

Table 18 Examples of Sentani common nouns

<sup>17</sup> This only occurs in a few instances where verbs are derived into adjectives or adverb-like words, in which the verb root is always reduplicated.

<sup>18</sup> It is possible that this verb was in turn derived from a ‘word’ and *(mo)ko-* ‘do’.



### 3.1.2 Mass Nouns

Mass nouns are distinguished from other nouns in that they cannot be quantified by numerals. They generally denote things that are either physically uncountable, such as *pu* ‘water’, or a general term for a foodstuff, e.g. *fi* ‘sago’. It is, however, still possible for the locational clitics to be attached to the noun phrase containing the mass noun (25a), as well as modify it with an adjective (25c). Additionally, the mass noun can serve as the modifier for another noun, and the resulting compound takes on the noun class of the left-most element in the noun phrase, i.e. the head (25d). The noun phrase is further discussed in section 3.3 below.

- (25) a. *puna*            *əwole*  
pu=na            ə-wo-le  
water=AT        go-IMPF-IND  
‘[He] is swimming.’ (lit. he is going while in the water)
- b. \**pu*    *pe*  
water    two
- c. *fi*            *nuku*  
fi            nuku  
sago        cold  
‘cold sago congee’
- d. *o*            *fi*  
o            fi  
tree        sago  
‘Sago Palm’

### 3.1.3 Proper nouns

Personal names are often based on other, lexical, nouns or noun phrases, but are distinguished from them morpho-syntactically in that they cannot be possessed, and semantically in that they can function as the agent argument in a clause regardless of the animacy of the lexical noun(s). Sentani people often have two names: one Sentani name, *to* ‘man, name’, usually referred to with Ind. *nama tanah* ‘land name’, and one Biblical name, although the former are becoming less frequent. The Sentani names can change throughout one’s life, for example due to major achievements, and consist of either a single noun, a noun plus an adjective, or two adjectives. They generally have positive meanings, describing something considered beautiful, e.g. *kələw nikiban* ‘Morningstar’ (lit. ‘spotless glimmer’), or something having positive properties, e.g. *aje rəmbu* ‘owl’. However, not all personal names are contemporarily based on other nouns: for example, *Onsá* and *Awansi* are ancestral names with no further meanings contemporarily and *Kambu*, which originally meant ‘root’, is now a (nick)name given to a chief.<sup>19</sup> In this grammar, personal names are distinguished from their non-name counterparts with capitalization.

While two juxtaposed nouns may be read as an attributive noun phrase, possessive noun phrase, or an existential clause (see section 4.3), a personal name can only be read as simple noun phrase (26a-b).

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<sup>19</sup> The non-name meaning of the word is still in use in Central Sentani.

- (26) a. *pu wali*  
 water life  
 ‘living water’ or ‘the life of water’ or ‘the water is alive’  
 b. *Pu Wali*  
 ‘Pu Wali’

Place names function similarly to personal names morphologically, but official place names generally do not have a lexical noun counterpart, e.g. *Ohaj* ‘Asei’ or *Həndani* ‘Sentani’. However, some village names incorporate the name of the chief, e.g. *Ebalə Hunu jo* ‘Ebalə Hunu village’, from the chief’s name *Ebalə Jakali*.

### 3.1.4 Kinship terms

Not all kinship terms can be distinguished from common nouns on morpho-syntactic grounds, but because they form a closed class with the majority seeming to have a shared origin due to their phonological form, as well as a number of kinship terms behaving different to other noun types, I have grouped them together here. Some of the kinship terms, namely those for ‘father’ and ‘mother’ are obligatorily possessed. While the unpossessed form can be elicited, in natural speech these nouns are always possessed with the relevant pronominal prefix (27a). If the possessor is underspecified, the first person plural marker *m-* is used (27b), but this marker may also occur with a first person singular possessor. Interestingly, the two obligatorily possessed kinship terms also have a separate lexeme for term of address, meaning that the word choice is different when referencing one’s father or mother than when addressing them. The latter terms are not obligatorily possessed (27c).

- (27) a. *næko*  
 n-æko  
 3.POSS-father  
 ‘his/her/their father’  
 b. *mæko*  
 m-æko  
 1PL.POSS-father  
 ‘my/our/the father’  
 c. *atæj*  
 atæj  
 ‘father (addressee)’

For kinship terms as a whole, there are lexical distinctions for both female and male relatives of ego. However the distinctions for male relatives are somewhat more expansive than those for female relatives (see Table 19).

<i>m-æko</i>	‘my/our/the father’
<i>atæj</i>	‘father (addressee)’
<i>mə-nake</i>	‘my/our/the mother’
<i>ana</i>	‘mother (addressee)’
<i>aka</i>	‘older brother’
<i>ubakə</i>	‘younger sibling’
<i>kelu</i>	‘son’
<i>omi</i>	‘daughter’
<i>afa</i>	‘uncle’ (FYB)
<i>alon</i>	‘uncle (FOB)’
<i>awaw</i>	‘uncle (MB)’
<i>ænimi</i>	‘aunt’
<i>abu</i>	‘grandparent’
<i>ako</i>	‘friend, brother’
<i>abu-ako</i>	‘close family’

Table 19 Sentani kinship terms.

Some kinship terms are also semantically extended for a more general reading. For example, *aka* ‘older brother’ is combined with the demonstrative *pækə* DEM to address a gathered group of people as in (28).

- (28) *aka*                      *pækənə*    *maj*                      *nanəmən,*    *hələm*    *foj*    *pækənə*  
**aka**                      **pækə=nə**    maj                      nanəməndə    hələm    foj    pækə=nə  
**older.brother**    **DEM=IN**    **PRO:2PL.POSS**    all                      much    good    **DEM=IN**

*məkawwe*

m-ə-kə-aw-le

VENT-go-PST-2PL.SBJ-IND

‘Ladies and gentlemen, you all together, thank you for coming here.’

The vast majority of obligatorily possessed nouns are kinship terms, as body parts do not require possession, but there is one non-kinship noun that is obligatorily possessed without exception: *ataj* ‘knowledge’. This noun is used in the constructions for knowing and not knowing, which always requires an independent pronoun and a possessive prefix on the noun. For this noun, unlike the obligatorily possessed kinship terms, there is no possibility for an underspecified or general possessor, and the possessive prefix must thus always be congruent with the (specified) referent (29a-c).

- (29) a. *məjə*    *mataj*  
*məjə*    m-ataj  
PRO:2PL    2PL.POSS-knowledge  
‘You all know.’
- b. *wejə*    *wataj*                      *akojkoj*                      *diæрман?*  
*wejə*    w-ataj                      akojkoj                      diæрман  
PRO:2SG    2SG.POSS-knowledge    traditional.singing    German  
‘Do you know any traditional German stories?’

- c. *tejæ tataj pam*  
*tejæ t-ataj pam*  
 PRO:1SG 1SG.POSS-knowledge NEG  
 ‘I don’t know (it).’

### 3.1.5 Temporal/locational nouns & demonstratives

Temporal nouns appear in variable positions throughout the sentence (see section 4.1) and do not function as arguments to the verb complex, but they are syntactically the head of an NP. This means that the locational clitics (see section 3.3.1) can be attached to them (30a). The temporal NP, however, cannot be extended with further elements besides particles, meaning that they cannot take adjectives nor be possessed.

- (30) a. *huæna mərəle*  
**huæ=nə** m-ə-te-le  
**evening=IN** VENT-go-1SG.SBJ.FUT-IND  
 ‘This evening I will come.’
- b. *nejæ wena tare habokoke*  
*nejæ wena ta=re ha-pə-kə-kə-le*  
 PRO:3 **yesterday** PRO:1SG=TWDS take.along-hit-PLU-PST-IND  
 ‘Yesterday he hit me.’

Locational nouns can also take the locational clitics. Contrary to temporal nouns, however, they can appear in complex NPs as they can modify nouns (31a). In cases where the (relative) location is emphasized, a possessed locational noun may appear instead of the common noun, for example (31b) where *puma* ‘top’ is used instead of *jam* ‘roof’.

- (31) a. *aje o pumanə*  
*aje o puma=nə*  
 bird tree top=IN  
 ‘A bird is on top of the tree.’
- b. *aje imæ pumanə*  
*aje imæ puma=nə*  
 bird house top=IN  
 ‘A bird is on top of a house.’

A subcategory of locational nouns are the demonstratives (see Table 20):

<i>pele</i>	DEM
<i>pækə</i>	DEM.PROX
<i>takə</i>	DEM.MED
<i>tikə</i>	DEM.DIST

Table 20 Sentani Demonstratives

They cannot formally be distinguished from nouns as they can take all nominal morphology, such as the locational clitics, and, interestingly, the possessive prefixes in certain contexts (32a-b). However, they form a subcategory within the word class as they do have several restrictions compared to common nouns: They do not appear as the head in a complex NP, and they cannot

take a lexical possessor or adjectives. Examples (32ab) also show that a demonstrative is not strictly required if an underspecified ending point is implied by the verbal semantics, as in this example the demonstratives indicate the origin. However, verbal morphology can give further deictic information about the ending point (in this case the ventive *m-* VENT; see section 4.2.1).

- (32) a. *nakənə*                      *məke*  
 n-takə=nə                      m-ə-kə-le  
 3.POSS-DEM.MED=IN    VENT-go-PST-IND  
 ‘[s/he/it] went from there to here.’
- b. *nakənə*                      *əke*  
 n-takə=nə                      ə-kə-le  
 3.POSS-DEM.MED=IN    go-PST-IND  
 ‘[s/he/it] went from there to there.’

Additionally, the demonstratives can be in a complex NP, in which they precede the modified noun (33a), as well as form an NP by themselves and function as an argument (33b). This is restricted to the object argument only, but it can undergo further information structural operations such as focalization (33c). The difference in order between (33a) and (33b) in addition to the attachment of the locational clitic is what distinguishes demonstratives in complex NP from those that form an NP by themselves.

- (33) a. *nejə*            *tikə*            *imərə*            *əke*  
 nejə            tikə            imə=rə            ə-kə-le  
 PRO:3            DEM.DIST    house=TO            go-PST-IND  
 ‘He went to yonder house.’
- b. *məko*                      *tikə*                      *mokowbokə*  
 m-əko                      tikə                      moko-w-bo-kə  
 1PL.POSS-father    DEM.DIST    do-3SG.SBJ-AU-PST  
 ‘My father was working over yonder.’
- c. *takənə*            *jə*            *tare*                      *wabənsəhinde?*  
 takə=nə            jə            ta=re                      wabə-n-hə-hi-n-le  
 DEM.MED=IN    EMPH    PRO:1SG=TWDS    trick-3SG.OBJ-hit-CONN-3SG.OBJ-IND  
 ‘Here, who can trick me?’

The demonstratives themselves denote a fixed location, but they often occur together with a locational clitic to indicate movement towards or from an underspecified location. Finally, *pele* DEM also has a function in discourse organization, often appearing at the start of a sentence to indicate a connection between the previous sentence.

- (34) *pele* *jə*            *nəkora*                      *wəwnə:*                      *pənə*            *nəkəw*  
**pele**    jə            n-əko=rə                      wə-w-nə                      pənə            nəkə-əw  
**DEM**    EMPH    3.POSS-father=TO    ask-3SG.SBJ-3SG.OBJ    thought    sit-2SG.SBJ.FUT  
 ‘Then the son said to his father: you must think.’

### 3.1.6 Compounds

There is a number of exocentric compounds which generally denote the broader semantic class of the members (35a,b). Because compounds function as one phonological unit, they are marked with a hyphen to indicate this status.

- (35) a. *obo-joku*  
obo joku  
pig dog  
'Animal(s)'
- b. *to-mijæ*  
to mijæ  
man woman  
'people'
- c. *abu-ako*  
abu ako  
grandfather friend  
'grandparent(s), family'

For (35c) there are several ways in which the compound is semantically extended: It is used to refer to a non-specific grandparent or both grandparents, but also for direct family. Other compounds are endocentric, meaning that one of the nouns modifies the other for the resulting meaning. This is differentiated from other modified NPs by the fact that both members are nouns, and that they are in turn modified as a whole (36a).

- (36) a. *moni-maj kabam*  
[[moni maj] kabam]  
hunger disaster big  
'great famine'
- b. *obo kabam*  
obo kabam  
pig big  
'big pig'

In some cases, the form only appears as a compound, with the meaning of the individual words being lost (37a). While the original meanings cannot be retrieved, they cannot be assumed to historically be a single lexical noun, since these are never longer than three syllables. This also occurs on reduplicated forms, where the meaning of the original noun has been lost (37b).

- (37) a. *kæte-nalə*  
'possessions'
- b. *mohi-mohi*  
'dirt, refuse'



The possessive prefixes can be attached to a limited number of nouns in order to indicate otherwise unemphasized possession. Additionally, the first person plural can be used for an underspecified possessor or, often, as a polite alternative to the first person singular possessor. This occurs both with independent possessive pronouns (38a) and prefixed possession (39). The possessive prefixes are further discussed in section 3.3.4.

- (39) *taj*                    *mæko*  
       *taj*                    *m-æko*  
       PRO:1SG.POSS 1PL.POSS-father  
       ‘my father’ or ‘It is my father.’

### 3.3 The Noun Phrase

The noun phrase consists minimally of a lexical noun or pronoun, which can be conjoined with another noun or pronoun (40a), compounded (40b; this acts as a noun syntactically), or modified with demonstratives (40c), numerals (40c), quantifiers (40d)<sup>20</sup> adjectives (40e), and, if the noun phrase is the object, locational clitics that attach to the right edge of the noun phrase (40e). The noun phrase itself is left-headed, meaning that the main noun is at the left-most edge of the phrase, and all modification, with the exception of the demonstratives, is placed after it. Multiple adjectives can modify the noun (or compound), the resulting meaning of which is dependent on the semantics of the nouns and the adjectives (40f). Within the modifiers to the noun, the ordering is as follows: modifying noun, adjective(s), numeral, and postposition/demonstrative.

- (40) a. *wejæ*        *æ*        *tejæ*  
       *wejæ*        *æ*        *tejæ*  
       PRO:2SG CONJ PRO:1SG  
       ‘you and I’

- b. *o*        *fi*  
       *o*        *fi*  
       tree sago  
       ‘Sago palm’

- c. *ja*    ***mbaj***    *nəkəwole*    *mo*    *Hələna*  
       *ja*    ***mbaj***    *nəkə-wo-le*    *mo*    *hələ=na*  
       day    **one**        sit-IMPF-IND    just    Sere=AT
- to    **pele**    *mijæ*        **pele**    *kajse*        *hawejboke*  
  to    **pele**    *mijæ*        **pele**    *kaji=re*        *hawə-əj-bo-kə-le*  
 man **DEM**    woman    **DEM**    pirogue=TWDS    embark-3DL.SBJ-AU-PST-IND  
 ‘One day, a man and a woman came by canoe from Sere to Ebale’s village.’

- d. *talo*    ***hələm***    *nəm*  
       *talo*    ***hələm***    ***nəmə***  
       year    **much**        **all**  
       ‘many years’

<sup>20</sup> Non-numeral quantifiers are formally adjectives, and are thus generally subsumed under this category.



- e. *tejæ imæ kabamre əɾələ*  
*tejæ imæ kabam=re əɾə-le*  
 PRO:1SG house big=TWDS see-IND  
 ‘I look at the big house.’
- f. *to-mijé kəndin kabam*  
*to mijé kəndin kabam*  
 man woman small big  
 ‘people small and big’

As stated in section 3.1 above, two nouns in a noun phrase can either be an endocentric compound (e.g. *moni-maj* ‘famine’), or an exocentric compound (40e). Also note that noun phrases with more than one noun, can function as verbless existential clauses within the correct context (see section 4.3).

### 3.3.1 Nominal morphology

As mentioned above, one of the distinguishing factors of nouns and noun phrases is that there is minimal morphology on the noun phrase. The only two morphological operations are possessive prefixing on lexical nouns, restricted to a certain set of nouns (see section 3.3.4 below), and the locational enclitics that attach to the noun phrase as a whole:

Clitic	Meaning	Gloss
= <i>rə</i>	general movement	TO
= <i>re</i>	towards	TWDS
= <i>ra</i>	away from	FROM
= <i>na</i>	general static location	AT
= <i>nə</i>	in or at	IN

Table 22 Sentani locational clitics.

The enclitics express a spatial relation to the noun phrase, indicating (to) where an action takes place. When movement is implied, i.e. =*rə* TO, =*re* TWDS, and =*ra* FROM, they are most often combined with a verb that includes motion/movement semantics, but this is not a strict necessity (as is shown below). It is clear from Table 22 that there is a functional overlap, as there are two clitics that cover ‘general’ movement and static location, =*rə* TO and =*na* AT, respectively. This means that, in instances where the exact locational relation is not emphasized (or is clear from the context), they are somewhat interchangeable. For example, both *imæ=na* ‘house=AT’ and *imæ=nə* ‘house=IN’ mean ‘in the house’, but the former can also mean ‘on the house’, ‘at the house’ or ‘near the house’, whereas the latter can only mean ‘in the house’ or ‘touching/attached to the house’. The majority of combinations of the locational clitics, however, are clearly mutually exclusive (41a-b), and in some instances there is a subtle difference in meaning due to the context, meaning that they are also not interchangeable (42a-b).

- (41) a. *wa mbəre?*  
*wa mbə=re*  
 PRO:2SG where=TWDS  
 ‘Where are you going?’

- b. *wa mbəra?*  
*wa mbə=ra*  
 PRO:2SG where=FROM  
 ‘Where did you come from?’

- (42) a. *joku tajna məke*  
*joku taj=na m-ə-kə-le*  
 dog PRO:1SG.POSS=AT VENT-go-PST-IND  
 ‘A dog came to me (my general vicinity).’

- b. *joku tajnə məke*  
*joku taj=nə m-ə-kə-le*  
 dog PRO:1SG.POSS=IN VENT-go-PST-IND  
 ‘A dog came to me (at my feet).’

Interestingly, there is a clear subdivision in the locational clitics regarding their form and function: One category, =*rə* TO, =*re* TWDS, and =*ra* FROM, involves movement to or from, and the other, =*na* AT and =*nə* IN, denotes a static location. The categories each share an initial phoneme, [t]<sup>21</sup> and [n], respectively. Interestingly, there is also an overlap in the vowels between the two categories, although this is not perfect since the static category is smaller.

In addition to this, one of the clitics, =*re* TWDS, has a more semantically extended function, in which it disambiguates the object argument, without necessarily being congruent with the locational semantics of the verb complex or action. Ambiguous here means that the syntactic roles are not clear from the verbal marking or context, or the syntactic roles are unexpected or marked. For example, when a speech-act participant (SAP; first and second person) and a third person or lexical noun are present in a sentence, the expected scenario is that the SAP acts upon the third person or noun (43a). If, however, this is not the case, the SAP is marked with the clitic =*re* TWDS to indicate this object status (43b), since the word order does not provide enough context to disambiguate the syntactic roles, since the non-SAP could have been fronted. As (43a,b) show, the ‘unexpected object’ is marked even when the verb complex has overt subject/object marking.

- (43) a. *tejə obo hapokokale*  
*tejə obo ha-po-ko-kə-a-le*  
 PRO:1SG pig take.along-strike-PLU-PST-1SG.SBJ-IND  
 ‘I have hit the pig.’

- b. *nejə tare hapoləkoke*  
*nejə ta=re ha-po-lə-ko-kə-le*  
 PRO:3 PRO:1SG=TWDS take.along-strike-1SG.OBJ-PLU-PST-IND  
 ‘He has hit me.’

<sup>21</sup> The orthographical considerations here dictate the spelling of the locational clitics with <ɾ> as they always appear intervocalically, thus being realized as such.

The basic hierarchy of unexpected agents is 1,2 > third person pronoun > animate referent > inanimate referent; Table 23 gives a schematic overview of the different conditions in which object disambiguation is required, given that the context does not provide this.

Arguments	Object marking
1 > 2	~
2 > 1	~
1, 2 > 3	X
3 > 1,2	V
3 > 3	V if inanimate > animate X if animate > inanimate ~ if animate > animate

Table 23 Obligatoriness of object disambiguation with *=re* TWDS. V = yes, X = no, ~ = optional

Although the obligatoriness of the marker is still dependent on specific argument combinations, its ‘new’ function is a clear indication that *=re* TWDS has developed characteristics of a case marker, and it is possible that it will further develop as such.

Lastly, the locational enclitics clearly share a common origin due to their formal overlap, but the word class they originate from is difficult to establish. The main two contenders for origins are verbs and postpositions. Firstly, there are several motion verbs and we have seen that the (normally) disyllabic verb roots can be shortened to a single syllable in the correct circumstances. Additionally, there are some synchronic verb forms that are formally and functionally related to the locationals, e.g. *əɾə* ‘walk’ and *=ɾə* TO, and *nəkə* ‘sit’ and *=nə* IN. However, verb roots, especially shortened ones, cannot occur in their base form synchronically, which means that the language must have undergone a major typological change from the supposed moment that these verb roots were integrated into nominal morphology, which does not necessarily shine through from other elements of the verbal morphology.<sup>22</sup> Additionally, we see that monosyllabic shortenings of verb roots have a tendency to develop into verbal rather than nominal morphology (see section 4.2.2). Instead, I believe they may have stemmed from earlier postpositions. The main evidence for this is that there are no postpositions in the language, the only possible instance being *əj* ‘inside’ (44a). As can be seen there, *əj* is marked with the locational clitic *=nə* IN, and is thus most likely a locational noun, similar to *puma* ‘top’ (44b). Note that even this category is relatively very small, as the function normally occupied by locational nouns and/or adpositions is instead carried out mainly by the locational clitics.

- (44) a. *pele jo əjnə moni-maj kabam nəke*  
*pele jo əj=nə moni maj kabam nəkə-le*  
 DEM village **inside**=IN hunger disaster big sit-IND  
 ‘In that village there was a great famine.’
- b. *aje imæ pumanə*  
*aje imæ puma=nə*  
 bird house top=IN  
 ‘A bird is on top of a house.’

<sup>22</sup> The relative lack of rigidity in the suffix ordering of the verb may point to this, but I do not suppose this as sufficient evidence.

It may also very well be the case that these postpositions in turn stemmed from verb roots, but much more (comparative) data are required in order to establish this, and the hypothesis above as well.

### 3.3.2 Adjectives

Adjectives are placed after the noun they modify. While they generally cannot occur by themselves, in cases where there is enough context, the noun can be elided. Additionally, there are some adjectives, such as *fa* ‘young’, that can occur by themselves with a predetermined meaning regardless of context (45a). In the same vein, some compounds consist of two adjectives, the result of which functions as a noun (45b).

- (45) a. *fa*            *nundewbokera*  
           *fa*            *nunde-w-bo-kə-le=ra*  
           young    get.lost-E-AU-PST-IND=FROM  
           ‘A little boy got lost.’
- b. *kələw*        *nikiban*  
           glimmering    spotless  
           ‘Morningstar’

Adjectives can be (fully) reduplicated, although this happens infrequently. The resulting meaning is augmentative to the original meaning, e.g. *kələw* ‘glimmering’ vs. *kələw-kələw* ‘continuously glimmering’. Some adjectives, such as *moj-moj* ‘kind’, seem to be a clearly reduplicated form, but there is no corresponding unreduplicated form. In some cases, the unreduplicated form may have been present previously and has since been lost, but in other cases, such as (46), the adjective likely has an ideophonic origin.

- (46) *obo pumpum jæle jahi jæle towən*  
       *obo pumpum jæle jahi jæle tow-ən*  
       pig **fat**            with round with take-3SG.SBJ.FUT
- mənnənsa!*  
       *m-ə-ən-nə-n-ha*  
       VENT-go-3SG.SBJ.FUT-3SG.OBJ-3SG.OBJ-INS  
       ‘Bring a fat and round pig to slaughter for him!’

Non-numeral quantifiers, as mentioned above, are formally the same as. By this I mean that their syntactic position in the NP is exactly that as occupied by adjectives (47a,b). In cases where the quantifier occurs only with an adjective, such as in the (lexicalized) greeting phrase in (47c), it is placed before the adjective. Lastly, multiple non-numeral quantifiers can be placed after each other as well (47d)

- (47) a. *aj*                            *əmfæw nanəmən*  
           *aj*                            *əmfæw nanəmən*  
           PRO:1PL.EXCL.POSS    banana **all**  
           ‘all of our bananas’

- b. *na hələm jæle*  
*na hələm jæle*  
 PRO:3 **much** with  
 ‘with many of them’
- c. *hələm foj*  
*hələm foj*  
**much** good  
 ‘very good’
- d. *məhə́-məhə́ hələm nəmə*  
*məhə́-məhə́ hələm nəmə*  
 how.much **much** **all**  
 ‘how many [people] altogether?’

### 3.3.3 Numerals

Sentani has a base-four numeral system based on the hands. That is to say, the first four numerals are base forms, while larger numbers are complex. For example, *məhə́-mbaj* ‘five’ consists of *mə* ‘hand’, *hə* ‘with’ and *mbaj* ‘one’, and *məhini-pe* ‘seven’ of *mə*, *hi* ‘other’ and *=nə* IN. The first numeral also functions as an indefinite determiner, especially for introducing human referents in the discourse with the phrase *to mbaj* ‘a man/person’. In everyday language, Indonesian numerals are generally used, especially for larger numbers.

Numeral	Meaning	Gloss & Literal translation				
<i>mbaj</i>	‘one’					
<i>pe</i>	‘two’					
<i>nami</i>	‘three’					
<i>kəli</i>	‘four’					
<i>məhə́-mbaj</i>	‘five’	<i>mə</i>	<i>hə</i>	<i>mbaj</i>		‘with one hand’
		hand	with	one		
<i>məhini-mbaj</i>	‘six’	<i>mə</i>	<i>hi</i>	<i>=nə</i>	<i>mbaj</i>	‘on the other hand one’
		hand	other	=IN	one	
<i>məhini-pe</i>	‘seven’	<i>mə</i>	<i>hi</i>	<i>=nə</i>	<i>pe</i>	‘on the other hand two’
		hand	other	=IN	two	
<i>məhini-nami</i>	‘eight’	<i>mə</i>	<i>hi</i>	<i>=nə</i>	<i>nami</i>	‘on the other hand three’
		hand	other	=IN	three	
<i>məhini-kəli</i>	‘nine’	<i>mə</i>	<i>hi</i>	<i>=nə</i>	<i>kəli</i>	‘on the other hand four’
		hand	other	=IN	four	
<i>mə-pe</i>	‘ten’	<i>mə</i>	<i>pe</i>			‘two hands’
		hand	two			
<i>mə-pe-mbaj</i>	‘eleven’	<i>mə</i>	<i>pe</i>	<i>mbaj</i>		‘two hands one’
		hand	two	one		

Table 24 Sentani numerals

Numerals are placed at the right edge of a noun phrase, meaning they appear after the noun and adjective, if present (48).

- (48) *to mbaj na kəlu fa pe*  
 [[to mbaj] [na [kəlu fa pe]]]  
 man one PRO:3 son young two  
 ‘A man had two sons.’

### 3.3.4 Possession

There are three ways to express possession in Sentani: juxtaposition, emphatically possessive pronouns, and possessive prefixes. These ways are grammatically not mutually exclusive and can be combined with one another.

The simplest way to express possession, often employed when the possessor is a lexical noun, is by juxtaposing the possessor and the possessed (49a). The ordering runs contrary to the general noun phrase ordering in that the possessor precedes the possessed, i.e. the modifier precedes the head. When the possession is not emphasized, one of the unmarked pronouns can also be used in a juxtaposition (49b). Additionally, when the possessor is clear through the context, the possessor can be left out altogether (49c).

- (49) a. *imæ pumanə*  
 imæ puma=nə  
 house top=IN  
 ‘on the top of the house’
- b. *na to Ebalə Jakali*  
 na to Ebalə Jakali  
 PRO:3 name PN  
 ‘His name was Ebalə Jakali.’
- c. *ojbona mənə mənnənə...*  
 ojbo=na mən=nə m-ə-ən-nə-nə  
 ring=AT hand=IN VENT-go-3SG.SBJ.FUT-3SG.OBJ-3SG.OBJ  
 ‘Put rings on [his] hand...’

One of these juxtaposed possessive constructions, name the possessed *u* ‘body’, has been conventionalized and is used in contexts where the body of the referent is emphasized:

- (50) *tene jare mohəwboke Ebalə Jakali mijə u jə*  
 tene ja=re mohə-w-bo-kə-le ebalə jakali mijə u jə  
 early day=TWDS crush-E-AU-PST-IND PN woman body EMPH
- molowboke*  
 molo-w-bo-kə-le  
 prepare-E-AU-PST-IND  
 ‘In the morning, Ebalə Jakali dressed himself like a woman.’

The second way to express possession is the emphatically possessed pronoun paradigm, as was already discussed in section 3.2 above. In addition to emphasizing the possessive relation, see (51a), it can also disambiguate it from a nominal predicate construction (see section 4.3). It is also common to express possession in an appositional construction; first introducing the lexical referent, and then using the possessive pronoun (51b).

- (51) a. *waj*                      *joku*  
           *waj*                      *joku*  
           PRO:2SG.POSS    dog  
           ‘Your dog’ (as opposed to my dog, or ‘you are a dog’)
- b. *Onsá*            *naj*            *mænggə* *fa*  
    [onsá]            [naj            mænggə fa]  
    PN                PRO:3.POSS girl        young  
    ‘Onsá has a daughter.’ (lit ‘Onsá, his daughter’)

The possessive prefixes occur in highly restricted contexts only: Some kinship terms, *ataj* ‘knowledge’, and the particle *pam* NEG. With the exception of *pam* NEG, all of these are obligatorily possessed (see section 3.1 above). Note that, due to its restricted use, not all person-number configurations are represented in Table 25; there is no clusivity distinction in the prefixes.

1SG	<i>t-</i>
1PL	<i>m-</i>
2SG	<i>w-</i>
2PL	<i>m-</i>
3	<i>n-</i>

Table 25 Sentani possessive prefixes.

The possessive prefixes may initially look like the regular independent pronouns, phonologically reduced through fast speech, but the fact that, in cases where the possessed noun does not start with a vowel, an epenthetic vowel, [ə], is inserted rather than the vowel present in the independent pronouns (52b), in this case /e/, shows that this cannot be the case.

- (52) a. *taj*                      *mæko*  
           *taj*                      m-æko  
           PRO:1SG.POSS    1PL.POSS-father  
           ‘my father’
- c. *taj*                      *mənakə*  
           *taj*                      m-nakə  
           PRO:1SG.POSS    1PL.POSS-mother  
           ‘my mother’

This, in combination with the optional double possession marking in the obligatorily possessed nouns (53), shows that they are synchronically prefixes rather than phonologically reduced independent pronouns. However, they are historically clearly related to the independent pronouns and take their form from the first consonant of the respective independent pronoun. This means that in some cases a pronominal distinction has been lost, for example for the first

and second person plural, both of which are *m-*. This ambiguity is resolved by the use of independent pronouns.

- (53) *wejæ wataj rusise afæw?*  
*wejæ w-ataj rusise afæw*  
 PRO:2SG 2SG.POSS-knowledge Russian language  
 ‘Do you know Russian?’

In addition to the nouns noted above, there is one instance of a lexical noun being possessively prefixed, (54), but the speaker noted that, although it was grammatical, it was somewhat strange. This may mean that either this possession construction is spreading to a broader set of lexical nouns, or that the instance in (54) is a vestige of a previously widespread but now restricted possession construction.

- (54) *pele to ukəwnə*  
*pele to ukə-w-nə*  
 DEM man tell-3SG.SBJ-3SG.OBJ
- na hekerə nobo kajarə*  
*na heke=rə n-obo kaja=rə*  
 PRO:3 garden=TO 3.POSS-pig guard=TO  
 ‘The man told him to be his pigs’ guard.’ (lit. ‘guard of pigs’)

#### 4 Verbs and basic clauses

This chapter discusses the verb complex and the basic clause. By basic clause I mean the most sentence construction, minimally consisting of one noun and one inflected verb complex (although see section 4.3), which can function without context. This thus excludes complex sentential operations such as complement clauses as well as discourse-based operations such as tail-head linkage (which is very briefly discussed in section 5.3).

As said, the basic template of a full-fledged sentence is a (nominal) subject and a verb inflected for tense. However, there are several constituents that can be added to expand this basic template, such as objects, particles, or temporal/locational phrases:

*[(particle) [(temporal/location phrase)] [subject] [(object(s))] verb (particle)]*

Thus, the most standard word order is SOV. While the verb is typically also inflected for person and number as well as mood, this is not strictly necessary. Additionally, the present tense is unmarked, which means that, although the verbal complex can be very intricate and expansive, very little morphology is obligatory. Of course, within context it is possible for a sentence to consist only of a single lexical word, particle, or (inflected) verb. There is no dedicated case marking on the nominal arguments, meaning that the assignment of syntactic roles is based on context, pronominal case marking on the verb (55a), and constituent ordering (55b; although see the use of locational enclitics to mark objects in section 3.3.1 above). In other words, the role of a noun phrase is usually not explicitly marked on the noun phrase itself, but follows from the other elements in a sentence.



- (55) a. *tejæ nəkale*  
 tejæ nəkə-a-le  
 PRO:1SG sit-1SG.SBJ-IND  
 ‘I sit.’
- b. *tejæ Onsá ərəj*  
 tejæ onsa ərəj  
 PRO:1SG PN see  
 ‘I see Onsá.’

The above template is subject to many changes and movements since constituent order is variable dependent on the assignment of syntactic roles and information structural operations. Additionally, distinctions between intransitive, transitive and ditransitive verbs are semantics-based, formally not being distinguished, but contextually by (implicit) object arguments and optional object marking(s) on the verb.

Section 4.1 discusses the word order, section 4.2 details the intricate verb complex including the ventive marker, verbal negation and the habitual (4.2.1), markers of affectedness and directionality (4.2.2), tense-aspect (4.2.3), person-number marking (4.2.4) and mood (4.2.5), and finally clauses with non-verbal predication (4.3) and particles (4.4).

#### 4.1 Word order and focus

Although the most unmarked word order is SOV, word order in Sentani is quite free, with all non-verbal constituents having at least some maneuverability dependent on information structure. While all non-verbal constituents can and do move frequently, the verb itself cannot move. That is to say, in some cases the object is placed after the verb (56a),<sup>23</sup> or a particle is placed after the verb to indicate its sentence-level scope (56b) to focalize the respective element, but the verb itself stays in place. Additionally, a locational clitic can be attached to the verb when a locational referent is un(der)specified, which indicates that the action takes place in a direction from or to some location, but that this location is not relevant to the discourse (56c).

- (56) a. *nəko wəwnə kəlu:*  
 n-əkə wə-w-nə **kəlu**  
 3.POSS-father ask-3SG.SBJ-3SG.OBJ **son**  
 ‘The father said to his son.’
- b. *Awansi əwongə*  
 Awansi ə-wo-n-kə **jə**  
 PN go-IMP-3SG.OBJ-PST **EMPH**  
 ‘Awansi has already left.’
- c. *fa nundewbokera jə towkajnəle*  
 fa nunde-w-bo-kə-le=**ra** jə tow-kə-aj-nə-le  
 young get.lost-E-AU-PST-IND=**FROM** **EMPH** take-PST-3PL.SBJ-3SG.OBJ-IND  
 ‘A little boy got lost, but he was found again.’

In (56c) the location from or in which the boy gets lost is unspecified, but the locational clitic

<sup>23</sup> Focalization for subjects takes place in situ with the emphatic particle *jə* EMPH (see section 4.4.2).

must attach to an overt constituent. If the clitic were to attach to *fa* ‘young’, this would imply that this is the location (object) argument, and thus cannot occur. Therefore, the clitic moves to the ‘post-verb focal position’ and attaches to the verb (see section 3.3.1 for further discussion of the locational clitics).

For the subject and object constituents, the most typical movement is the fronting of the object constituent in order to focalize it. This differs from the post-verbal position in that it does not necessarily emphasize the undergoer status, i.e. emphasizing that the action takes place unto this argument, but rather discourse-level focalization, such as in a contrastive sentence, or when it is unexpected in the context. Where (57a) is in an unmarked constituent ordering and thus gives a standard reading, (57b) indicates “I have said something to *you*, as opposed to someone else”, giving contrastive focus to the object. Since the subject’s standard position is often already sentence-initial, focalization of the subject is achieved with particles rather than movement (see section 4.4.2). However, if a temporal/locational noun phrase is present, and thus the subject is no longer sentence-initial in unmarked word order, this movement can still take place, as in (57c).

- (57) a. *tejæ*      *ware*                      *a*                      *ələkoke*  
           *tejæ*      *wa=re*                      *a*                      *ələ-ko-kə-le*  
           PRO:1SG PRO:2SG=TWDS word            say-PLU-PST-IND  
           ‘I have said something to you.’
- b.    ***ware***                                      *tejæ*            *a*                      *ələkoke*  
           ***wa=re***                                      *tejæ*            *a*                      *ələ-ko-kə-le*  
           **PRO:2SG=TWDS**    PRO:1SG word            say-PLU-PST-IND  
           ‘I have said something to *you*.’
- c.    *Onsá*      ***ninæ***      *tare*                                      *ərajkobo*  
           *onsá*      ***ninæ***      *ta=re*                                      *əraj-j-kə-bo*  
           PN            **already**    PRO:1SG=TWDS            see-E-PST-AU  
           ‘Onsá already saw me.’

#### 4.2 The Verb complex

Verbs in Sentani are by far the most morphologically complex word class. Besides being marked for subject and object, they can also be marked for tense-aspect and mood, as well as several other inflectional categories. These inflectional categories do not always have a functional overlap and are thus determined by their shared formal property, which is their position relative to the verb root, i.e. the ‘slot’ they take. Because of the amount of possible marking, as well as the frequent occurrence of several verb roots together, I refer to an inflected verb root or roots as the ‘verb complex’ rather than just verb. The verb roots are most frequently mono- or disyllabic, although trisyllabic verb roots also occur occasionally. If there are multiple roots in the verb complex, a number of disyllabic roots can also be shortened, e.g. *moko-* ‘to do, make’ can be shortened to *mo-* or *ko-* depending on the phonological context. However, this shortening seems to be verb-specific and does not occur in the majority of verb roots. While some verbs occur predominantly in either intransitive or transitive constructions, the valency of verb roots is not lexically determined. That is to say, while the verb *nəkə-* ‘to sit’ can and does often occur without an object, a location can morphologically be marked as the object on

the verb. Thus, the valency of a verb is determined by the argument marking and, more often, the context.

The affixes on the verb are primarily suffixes, with the exception of the PRE category of verbal markers and the habitual, which consist of prefixes and circumfixes. All morphology on the verb is dependent on the construction and context and there is no marking that is obligatory on each verb. However, completely unmarked verb forms cannot occur. For example, while it is possible to leave out subject and object marking when the referents are clear from the context (58a), the imperative construction has a subject suffix directly attached to the verb root (58b; see section 4.2.5). Note that in (58a), while there is no object marking on the verb, the indirect object (the addressee) is disambiguated with a locational clitic.

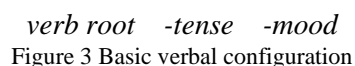
- (58) a. *tejæ*      *ware*                  *a*      *ələkoke*  
           *tejæ*      *wa=re*                      *a*      *ələ-ko-kə-le*  
           PRO:1SG    PRO:2SG=TWDS    word    speak-PLU-PST-IND  
           ‘I have said something to you.’
- b. *honoj!*  
     *hono-j*  
     sit-2SG.SBJ  
     ‘Sit down!’

It is possible to distinguish a verb root from the rest of the morphology, and thus verb roots can be given in isolation, but are marked with a hyphen afterwards to indicate the root status, e.g. *ələ-* ‘say’.

In this section I will first review the types of formal verbal affixation from most basic to most complex, and then discuss each formal category individually, in order from position closest to furthest from the verb root: The PRE category and the habitual (section 4.2.1), SFX1 (section 4.2.2, tense-aspect (section 4.2.3), and mood (section 4.2.5).

The affixes in some of the verbal template slots, i.e. the formal property of their position relative to the verb and mutual exclusivity, form a form-function paradigm, meaning that they overlap in both formal and functional properties. These categories are thus named according to their functional category, e.g. person-number marking and mood. However, there are two slots in which the affixes occupy the same slot, but are functionally diverse. Because it would be inaccurate to discuss the individual markers as separate categories due to their formal overlap, but also inaccurate to assign a single term to these functionally diverse markers, I have called these categories PRE and SFX1 after their formal morphosyntactic property: their relative position to the verb root.

The most basic verb complex consists only of a verb root, tense-aspect, and mood:



It occurs in the most basic sentences that describe simple events where the syntactic roles of the arguments can easily be garnered from the context (59). Since the present tense is unmarked (see section 4.2.3), this configuration only features a single morphological marker on the verb root in the present tense, as in (59b).

- (59) a. *Awansi imæna əke*  
 Awansi imæ=na ə-kə-le  
 PN house=AT go-PST-IND  
 ‘Awansi goes to the house.’
- b. *Awansi imænə nəkəle*  
 Awansi imæ=nə nəkə-le  
 PN house=IN sit-IND  
 ‘Awansi lives in the house.’

The first step up from the most basic verbal configuration is the addition of person-number marking (section 4.2.4), which can take the following forms:

<i>verb root</i>	<i>-tense</i>	<i>-subject</i>	<i>-mood</i>
<i>verb root</i>	<i>-subject.tense</i>	<i>-mood</i>	
<i>verb root</i>	<i>-tense</i>	<i>-object</i>	<i>-mood</i>
<i>verb root</i>	<i>-tense</i>	<i>-object</i>	<i>-subject</i> <i>-mood</i>
<i>verb root</i>	<i>-tense</i>	<i>-subject</i>	<i>-object</i> <i>-mood</i>
<i>verb root</i>	<i>-tense</i>	<i>-object</i>	<i>-object</i> <i>-subject</i> <i>-mood</i>
<i>verb root</i>	<i>-subject</i>	<i>-tense</i>	<i>-mood</i>

Table 26 Verbal configuration with person-number marking.

As is clear from Table 26, any configuration of subject and object marking is possible, i.e. marking only the subject (60), only the object (60b), or both the subject and the object(s) (60c-d). The examples in (59) and (60) also show that there is no morphosyntactic operation required for a change in valency. Rather, valency of the verb is determined by the number of (implicit) arguments and the event context.

- (60) a. *Onsá ə Awansi a ələwate*  
 Onsá ə Awansi a ələ-wo-**aj**-le  
 PN CONJ PN word say-IMPV-**3PL.SBJ**-IND  
 ‘Onsá and Awansi are saying something [to me].’
- b. *tejæ mare a ələkonde*  
 tejæ ma=re a ələ-ko-**n**-le  
 PRO:1SG PRO:2PL=TWDS word say-PLU-**3SG.OBJ**-IND  
 ‘I have said some things to you all.’
- c. *tejæ ware a ukawale*  
 tejæ wa=re a ukə-**aw-a**-le  
 PRO:1SG PRO:2SG=TWDS word tell-**2SG.OBJ-1SG.SBJ**-IND  
 ‘I have told you something.’
- d. *ojbona mənə mənənə*  
 ojbo=na mə=nə m-ə-**ən-nə-nə**  
 ring=AT hand=IN VENT-go-**3SG.SBJ.FUT-3SG.OBJ-3SG.OBJ**
- odo məmalu mənənəhidəanko*  
 odo məmalu m-ə-**ən-nə**-hidə-**nə**-ko  
 leg footwear VENT-go-**3SG.SBJ.FUT-3SG.OBJ**-clothe-**3SG.OBJ**-PLU  
 ‘Put rings on his fingers, put shoes on his feet!’

Subject and object affixes are not in a fixed slot relative to the verb. However, all variation in the relative position is governed by regular processes: The future tense subject pronominal affix paradigm consists of a portmanteau morpheme that incorporates both person-number and tense (61a; see section 4.2.4); the inversion of subject and object affix order occurs when the subject is first or second person singular (61b; see section 4.2.4); and lastly in the imperative mood the subject is always placed directly behind the verb stem (61c; see section 4.2.5).

- (61) a. *ta atununde mækore pukore*  
 ta atunə-nu-n-le m-æko=re puko=rə  
 PRO:1SG connect-REFL-3SG.OBJ-IND 1PL.POSS-father=TWDS presence=TO

*əralere*  
 əɾəj-te-le  
 see-1SG.SBJ.FUT-IND  
 ‘I will go to my father.’

- (b) b. *tejæ ware akójkoj a ukawale*  
 tejæ wa=re akójkoj a ukə-aw-a-le  
 PRO:1SG PRO:2SG=TWDS trad.dance word tell-2SG.OBJ-1SG.SBJ-IND  
 ‘I have told you a traditional story.’

- (c) c. *ələjko*  
 ələ-j-ko  
 speak-2SG.SBJ-PLU  
 ‘Say something!’

From person-number marking, the next step up in complexity is the addition of SFX1 markers. They are the first suffixes that follow the verb root in all constructions except the imperative. They perform several functions such as emphasizing affectedness of the undergoer or directionality of the action, which are discussed in more detail in section 4.2.2.

*verb root -SFX1 -tense -object -subject -mood*

Figure 4 Verbal configuration including SFX1.

There is no morphological interaction between the markers in the SFX1 category and the other categories. That is, there are no changes or restrictions to the options, paradigms and suffix ordering as a result of the addition of a marker from a SFX1 marker.

Next is the PRE category (section 4.2.1), named such because they are the only category that attaches to the front of the verb root. The category has two members: the ventive prefix, *m-VENT*, which indicates motion towards the position of the speaker, and the negative circumfix, *ə- -j NEG*, which negates the verb.

*PRE- verb root -PRE -SFX1 -tense -object -subject -mood*

Figure 5 Verbal configuration including PRE.

Another circumfix, which forms its own category, is the habitual *j- -jə HAB*. The difference between the negative circumfix is that the habitual does not attach to the verb root, rather, it attaches to the first suffix that follows the verb root, with the exception of the mood marker.

*verb root HAB- -SFX1 -HAB -tense -object -subject -mood*

Figure 6 Verbal configuration including HAB.

As mentioned above, the following sections will look at each verbal slot individually: The PRE category and the habitual are discussed in section 4.2.1, SFX1 in section 4.2.2, tense-aspect in section 4.2.3, and mood in section 4.2.5.

#### 4.2.1 PRE & Habitual

As said above, the PRE affixes and the habitual are two distinct categories, but they are discussed together in this section because of their formal similarities and small size. The PRE category consists of the ventive and the negative. They are the only affixes that occur before the verb root, and are also the only affixes that must always attach directly to it. However, they are not formally identical, as the ventive is a prefix, and the negative is a circumfix. Similar to the negative, the habitual is also a circumfix, but this affix always attaches to the first affix *after* the verb root instead of on the verb root itself.

The ventive, *m-* VENT, can only attach to the first verb root of a verb complex. Its narrow meaning is that the action takes place towards the current position of the speaker, but in some instances it may also mean that the action takes place near or around the speaker, and that this is relevant. The ventive occurs mostly on the verb root *ə-* ‘to go’, such as in the second verbal complex in (62a), but it can also occur on other verb roots. As (62b) shows, the verb root does not require to have implied motion semantics.

- (62) a. *ta kəlu əwfədəkera jə*  
 ta kəlu ə-w-hədə-kə-le=ra jə  
 PRO:1SG son go-E-die-PST-IND=FROM EMPH

*məwwalewboke*  
 m-ə-w-wale-w-bo-kə-le  
 VENT-go-E-live-E-AU-PST-IND  
 ‘My son died but he came back to life.’

- b. *ta pəkənə moninə məkakałəle*  
 ta pəkə=nə moni=nə m-nəkə-a-kale-a-le  
 PRO:1SG DEM.PROX=IN hunger=IN VENT-sit-1SG.SBJ-suffer-1SG.SBJ-IND  
 ‘Here I live hungrily.’

The negative, *ə-* *-j* NEG, also attaches directly to the verb root, but due to its infrequency it cannot be said whether it is reserved to the first verb root of the verbal complex. The negative circumfix only negates the verb itself, rather than having scope over the entire sentence. In (63) this means that the verb *je-* ‘give’ is negated into an event of ‘not-giving’, rather sentential or clausal negation. Negation with different scope, such as contrastive or focalized negation, is carried out by the negative particle *pam* NEG (see section 4.4.2).

- (63) *pele jæ wejæ tare obo kəlu kəndin fəm*  
*pele jæ wejæ ta=re obo kəlu kəndin fəm*  
 DEM EMPH PRO:2SG PRO:1SG=TWDS pig son small even
- əjej mo*  
 ə-je-j mo  
 NEG-give-NEG still  
 ‘Yet you haven’t even given me a small piglet yet.’

Lastly, the habitual circumfix *j- -jə* attaches to the first suffix that follows the verb root. The circumfix attaches to this suffix regardless of its category, with the exception of the modal suffixes, which are always at the end of a verbal complex. Due to its infrequency, there are very few instances of the habitual in my data, but Elenbaas (1999, 56) shows that the circumfix can attach to person-number suffixes (64b), and Cowan (1965, 23) shows that the circumfix will simply be placed after the root with nothing between the two elements if the only other affixation on the verb is modal (64c).

- (64) a. *pækə talo hələm nəm paj ware mo*  
*pækə talo hələm nəm paj wa=re mo*  
 DEM year much even just 2SG=TWDS only

*uhejməjawale*

*uhe-j-mə-jə-aw-a-le*

observe-HAB-DIR.TO-HAB-2SG.OBJ-1SG.SBJ-IND

‘I always listen to you.’

- b. *mokojməjəle*

*moko-j-mə-jə-le*

do-HAB-1DL.OBJ-HAB-IND

‘He always does it for us two.’ (Adapted from Elenbaas 1999, 56)

- c. *mokojjəle*

*moko-j-jə-le*

do-HAB-HAB-IND

‘He works all the time.’ (Adapted from Cowan 1965, 23)

#### 4.2.2 SFX1

The SFX1 category of verbal affixes is, as mentioned above, named after the formal properties the members of this category share: they are placed directly after the verb root. The category consists of six affixes, which can be grouped into two functional categories: Affectedness and Directionality, shown in Table 27. The functions of each subcategory are discussed individually below.

	Function	Form	Gloss
<b>Affectedness</b>	reflexive	<i>-nu</i>	REFL
	affected undergoer	<i>-bo</i>	AU
	plural undergoer	<i>-ko</i>	PLU
<b>Directionality</b>	connective	<i>-hi</i>	CONN
	direction towards	<i>-mə</i>	DIR.TO
	direction away	<i>-ho</i>	DIR.FRM

Table 27 SFX1 category functions.

For the majority of the markers in SFX1, a clear lexical origin can be found (see Table 27). Synchronically, they are no longer connected formally to their origins, but a clear semantic connection is still present. Interestingly, although the majority is derived from a verb root, they originate both from the nominal and verbal domain.

Function	Form	Origin
reflexive	<i>-nu</i>	<i>na u</i> ‘his body’
affected undergoer	<i>-bo</i>	<i>po-</i> ‘strike’
plural undergoer	<i>-ko</i>	<i>(mo)ko-</i> ‘do, make’
connective	<i>-hi</i>	? <i>i-</i> ‘give’
direction towards	<i>-mə</i>	<i>m-ə-</i> VENT-go ‘come’
direction from	<i>-ho</i>	<i>fə-</i> ‘cross’ <sup>24</sup>

Table 28 SFX1 marker origins.

There are two instances in which the SFX1 does not attach directly to the verb root: Firstly, in the imperative-optative construction (see section 4.2.5) the subject marker is always placed directly after the verb root, and SFX1 thus follows this. Secondly, epenthetic *-w* E appears directly after one or more of the verb roots when SFX1 is present in a sentence with a singular subject (65). The function of the epenthetic seems to be solely to indicate the above, and is not based on phonology.

- (65) a. *əlakonde*  
 ələ-ko-n-le  
 say-PLU-3SG.OBJ-IND  
 ‘[You all] say something.’
- b. *əlawkonde*  
 ələ-w-ko-n-le  
 say-E-PLU-3SG.OBJ-IND  
 ‘[You] say something.’

Additionally, there seems to be some variability in its occurrence: While it appears almost without exception on the first root if there are multiple roots present in the verb complex, this is not always the case if there is only one verb root. This seems to either be free variation or the result of phonological reduction due to fast speech, but specific conditions may be found in the future.

<sup>24</sup> There is no contemporary evidence for an /h/~f/ alternation, but Cowan (1965, 25) notes this variation for the same marker.



Lastly, there is a handful of instances where the person-number marker appears before SFX1 in a non-imperative-optative construction. This may be connected with the affectedness markers, but its origin and purpose currently remain unknown.

The first of SFX1's subcategories I am discussing here is Affectedness. The markers in this category express degree of affectedness of the undergoer, affected undergoer *-bo* AU (66) and reflexive *-nu* REFL (66b), or the number of undergoers, connective *-hi* CONN (66c), or can express either (or both), depending on the context, plural undergoer *-ko* PLU (66d).

- (66) a. *fa nundewbokera*  
 fa nunde-w-**bo**-kə-le=ra  
 young get.lost-E-AU-PST-IND=FROM  
 'A young boy got lost.'
- b. *Awnuke nækore pukorə əwole*  
 a-w-nu-kə-le n-æko=re puko=rə ə-wo-le  
 take-E-REFL-PST-IND 3.POSS-father=TWDS presence=TO go-IMPF-IND  
 'He got up and went to before his father's presence.'
- c. *na u pənə məwnənəkəwfike*  
 na u pənə m-ə-w-nə-nəkə-w-**hi**-kə-le  
 PRO:3 body thought VENT-go-E-3SG.OBJ-sit-E-CONN-PST-IND  
 'He came to his senses.' (lit. "his body went and stayed with his thoughts")
- d. *na kətə-nalə wahewmikoke*  
 na kətə-nalə wahe-w-mi-**ko**-kə-le  
 PRO:3 things divide-E-3DL.OBJ-**PLU**-PST-IND  
 'He divided his goods to them.'

The affected undergoer marker *-bo* AU emphasizes the affectedness of the undergoer. In the case of intransitive constructions, the undergoer is the subject, and in the case of transitive constructions it is the object. There are no instances of a ditransitive construction with this marker. Thus, while (67a) means generally cutting into something, (67b) means to fully cut through something, emphasizing the affectedness of the object.

- (67) a. *foloj*  
 folo-j  
 cut-2SG.SBJ  
 'Cut it!'
- b. *o folojbo*  
 o folo-j-bo  
 tree cut-2SG.SBJ-AU  
 'Cut the wood in half!'

For intransitive constructions, it emphasizes the (lack of) agency the subject has over the action, which can take on several meanings. For example, from the verb root *hono-* 'lie down' you get *honoj* 'lie down!' and *honojbo* 'go to sleep!', while from *nəkə-* 'to sit' you get *nəkəj* 'sit down!' and *nəkəjbo* 'keep sitting (even though you may not want to)!'. Thus, the expression of some events is dependent on the affected undergoer marker.



- b. *na kətə-nalə wahewmikoke*  
*na kətə-nalə wahe-w-mi-ko-kə-le*  
 PRO:3 things divide-E-3DL.OBJ-PLU-PST-IND  
 ‘He divided his goods to them (each individually).’
- c. *nejæ tare hapələkoke*  
*nejæ ta=re ha-po-lə-ko-kə-le*  
 PRO:3 PRO:1SG=TWDS take.along-strike-1SG.OBJ-PLU-PST-IND  
 ‘He has beaten me up.’

Finally, the connective marker, *-hi* marks that the objects are connected, united or bound together in some way. This connection can be quite literal, as in (70a), but it can also be somewhat more broad, as in (70b) where the marker more broadly indicates that the undergoer is the people of Sere, rather than the village itself.

- (70a) *na u pənə məwnənəkəwfike*  
*na u pənə m-ə-w-nə-nəkə-w-hi-kə-le*  
 PRO:3 body thought VENT-go-E-3SG.OBJ-sit-E-CONN-PST-IND  
 ‘He came to his senses.’ (lit. ‘his body went and stayed with his thoughts’)
- (b) *Jakali Serere wabəwmihike*  
*Jakali Sere=re wabə-w-mi-hi-kə-le*  
 PN PN=TWDS trick-E-3DL.OBJ-CONN-PST-IND  
 ‘Jakali played tricks on [the man and woman from] Sere.’

The second subcategory of SFX1 suffixes is Directionality. This category consists of two suffixes: the direction towards marker, *-mə* DIR.TO, and the direction away from marker, *-ho* DIR.FRM. Both markers indicate that the action takes place towards or away from the object/undergoer. This is different from the ventive *m-* VENT since this marks direction towards the speaker’s location, and from the locational clitics since these indicate locations rather than direction.<sup>25</sup> As with the connective marker, the directional meaning can be both more literal (71a), and more abstract (71b).

- (71) a. *pækə talo hələm nəm paj ware mo*  
*pækə talo hələm nəm paj wa=re mo*  
 DEM year much even just 2SG=TWDS only
- uhejməjawale*  
*uhe-j-mə-jə-aw-a-le*  
 observe-HAB-DIR.TO-HAB-2SG.OBJ-1SG.SBJ-IND  
 ‘I always listen to you.’

<sup>25</sup> More specifically, the locational clitics indicate either the location at which an action takes place, or imply movement towards a location, whereas these markers only indicate the direction in which an action takes place, without movement being necessarily implied.



- d. *Awansi*      *majnə*      *məkəne*  
awansi      maj=nə      m-ə-kə-ə**n**-le  
PN      PRO:2PL.POSS=IN      VENT-go-PST-**3SG.SBJ.FUT**-IND  
‘Awansi will come to you all.’

The vowel of the past tense marker is often obscured due to assimilation or vowel harmony, most frequently with a third person singular, i.e. unmarked, subject in the combination /kə-le/ PST-IND, which surfaces as [ke]. Similarly, the vowel of the imperfect marker is obscured when the following suffix starts with a vowel. However, due to their predictable position and their consonants remaining relatively robust, there are few instances of ambiguity tense-wise, in which instance the context usually resolves it.

#### 4.2.4 Person-number Marking

There are several pronominal paradigms for both subject and object suffixes. The subject paradigms are divided into a neutral, non-future paradigm (Table 29), and the future paradigm which combines person and tense marking (Table 30).

	Singular	Dual	Plural
<b>1</b>	-a	-ən	-an
<b>2</b>	-j	-ew	-aw
<b>3</b>	∅	-ej	-aj

Table 29 Sentani non-future subject suffixes

	Singular	Dual	Plural
<b>1</b>	-te	-a	-ma
<b>2</b>	-ew	∅	-əm
<b>3</b>	-ən	-nej	-naj

Table 30 Sentani future subject suffixes (Adapted from Elenbaas 1999, 54)

The object paradigms are divided along similar, but crucially different lines: The first paradigm is used when the subject is first or second person singular and the sentence is in a non-future tense (Table 31), and the second paradigm is used for third person singular subject, plural subject, and future tense (Table 32). (73) shows both paradigms:

- (73) *warə*      *mokowbokawale*      *wa*      *kəlu*      *jə*  
wa=rə      moko-w-bo-kə-**aw-a**-le      wa      kəlu      jə  
2SG=TO      do-E-AU-PST-**2SG.OBJ-1SG.SBJ**-IND      PRO:2SG      son      EMPH
- tarə*      *əwətəmmə*  
ta=rə      ə-wə-j-**lə-əm**      jə  
PRO:1SG=TO      NEG-say.to-NEG-**1SG.OBJ-2PL.SBJ.FUT**      EMPH  
‘Do not call me your son.’



#### 4.2.5 Mood

There are three moods: indicative, imperative and irrealis. They are expressed as the indicative mood suffix, *-le* IND, a change in the verbal suffix order, and an unmarked verb, respectively.

The indicative, which appears on by far the most verb complexes, indicates that the speaker is convinced of the truth value of the event they are describing. However, it is not required that the action in the event has finished or even has started, but simply that they are convinced that the event in the sentence is true. Thus, the indicative is not bound by tense-aspect and occurs in present, past, future tenses and in the imperfect aspect (76a-d, respectively). The indicative mood suffix always attaches to the very end of the verb complex.

- (76) a. *tejæ ware a ukawale*  
*tejæ wa=re a ukə-aw-a-le*  
 PRO:1SG 2SG=TWDS word tell-2SG.OBJ-1SG.SBJ-IND  
 ‘I tell you something.’
- b. *tikənə na kətə-nələ əwsajəwboke*  
*tikə=nə na kətə-nələ ə-w-sajə-w-bo-kə-le*  
 DEM.DIST=IN PRO:3 things go-E-squander-E-AU-PST-IND  
 ‘There, he went and squandered his things.’
- c. *tejæ waj imænə mərəle*  
*tejæ waj imə=nə m-ə-te-le*  
 PRO:1SG 2SG.POSS house=IN VENT-go-1SG.SBJ.FUT-IND  
 ‘I will come to your house.’
- d. *məhinə hakowfolale*  
*məhi=nə hako-w-folo-wo-a-le*  
 sadness=IN sorrow-E-cut-IMPF-1SG.SBJ-IND  
 ‘I am feeling pity.’

In an imperative construction the verb can consist minimally of a verb root and a subject suffix, and maximally of that suffix, an object suffix, and an SFX1 suffix. The subject marker always attaches directly to the root, with the SFX1 marker, if present, being placed after it, overriding the suffix ordering required in an indicative verb formation and the suffix paradigms. As (77a,b) shows, the imperative mood is mutually exclusive with the indicative mood.

- (77) a. *wejæ tikənə nəkəne*  
*wejæ tike=nə nəkə-n-le*  
 PRO:2SG DEM.DIST=IN sit-3SG.OBJ-IND  
 ‘You sit there.’
- b. *nəkəjbo*  
*nəkə-j-bo*  
 sit-2SG.SBJ-AU  
 ‘Sit down!’

Cowan (1965) notes that the imperative can also occur for the first person with an adhortative meaning, but this does not occur in my data, and is thus probably quite rare. The construction

does, however, occur with a third person subject in an optative meaning (78). In this instance the subject is morphologically singular, but referentially unspecified and contextually plural, as (78) is an order directed towards servants.

- (78) *ojbona mənə mənnənə*  
 ojbo=na mən=nə m-ə-ən-nə-nə  
 ring=AT hand=IN VENT-go-3SG.SBJ.FUT-3SG.OBJ-3SG.OBJ
- odo məmalu mənnahidəŋko*  
 odo məmalu m-ə-ən-nə-hidə-nə-ko  
 leg footwear VENT-go-3SG.SBJ.FUT-3SG.OBJ-clothe-3SG.OBJ-PLU  
 ‘Let them put rings on his fingers, put shoes on his feet!’

The irrealis is unmarked both morphologically and in suffix ordering. It is called the irrealis because, in contrast to the indicative, it is used when the speaker is unsure whether something has or will happen. It occurs mainly in question sentences (79a), but also in desiderative construction (79b), in which case it is combined with future tense. Note that *hinə* is used both as a general question particle (see section 4.4.1) as well as a verb root, *hinə-* ‘to ask’ or ‘to question’.

- (79) a. *məkanə tare wejə hinejə*  
 məka=nə ta=re wejə hinə jə  
 why=IN PRO:1SG=TWDS PRO:2SG ask EMPH  
 ‘Why are you asking me?’
- b. *tejə ware ukəte*  
 tejə wa=re ukə-te  
 PRO:1SG PRO:2SG=TWDS tell-1SG.SBJ.FUT  
 ‘I want to tell you something.’

#### 4.3 Clauses with non-verbal predication

Existential, identifying and equative constructions consist of a subject and a nominal predicate. The construction has subject-predicate order, and both the subject and the predicate NPs can have varying levels of complexity:

- (80) a. *Awansi mænggə fa*  
 Awansi mænggə fa  
 PN girl young  
 ‘Awansi is a girl.’
- b. *Awansi Jacobus mænggə fa*  
 Awansi Jacobus mænggə fa  
 PN PN girl young  
 ‘Awansi is Jacobus’ daughter.’
- c. *mænggə fa naj to Awansi*  
 mænggə fa naj to Awansi  
 girl young PRO:3.POSS name Awansi  
 ‘The girl’s name is Awansi.’



In some cases, multiple interpretations are possible for a sentence such as (81a) out of context; it can be a complex NP, a possessed NP, or a nominal predicate. When there is more context, and/or the construction more complex, as in (81b), word order can disambiguate the interpretation, in addition to prosodical clues.

- (81) a. *pu wali*  
 water life  
 ‘living water’ or ‘the water is alive’ or ?‘the life of water’
- b. *Kələw Nikíban Ohəj jakobá ondofolo*  
 [Kələw Nikíban [Ohəj jakobá] ondofolo]  
 PN Asei island chief  
 ‘Kələw Nikíban is the chief of Asei island.’

For (81b), were *ondofolo* ‘chief’ to be placed directly after *Kələw Nikíban*, thus directly modifying it, that noun phrase’s meaning would be ‘Kələw Nikíban is a chief’, and the interpretation of the whole sentence would be difficult, but *Ohəj jakobá* ‘Asei village’ could be interpreted as a locational argument.

Another way to disambiguate is using pronouns from different sets (see section 3.2), which either emphasize the possessive nature and excludes an identifying construction (82a) or emphasize the subject to indicate that it is not a possessive construction (82b):

- (82) a. *Onsá naj mænggə*  
 Onsá naj mænggə  
 PN PRO:3.POSS girl  
 ‘Onsá has a daughter.’
- b. *nejæ imæna*  
 nejæ imæ=na  
 PRO:3 house=AT  
 ‘He is in the house.’

#### 4.4 Particles

There are several non-lexical words that perform a number of functions. These can best be subdivided into question words (section 4.4.1), which are used in the construction of content question sentences, and the broader category of discourse particles (section 4.4.2), which have diverse functions, but have similar syntactic properties.

##### 4.4.1 Question words

There are four question words: *hinə* ‘what, who’, *məka* ‘why’, *məhə* ‘how’, and *mbə* ‘where’. They are placed either in situ (83a), or at the front of the sentence to have scope over the whole sentence (83b). Note that in the latter case, movement of the constituents is still possible, for example fronting the subject for focalization as in (83c; interrogative constructions are further discussed in section 5.1).

- (83) a. *waj to hinə*  
 waj to **hinə**  
 PRO:2SG.POSS name **what**  
 ‘What is your name?’

- b. *məkanə* *wejə* *tarə* *hinə* *jə*  
**məka=nə** *wejə* *ta=rə* *hinə* *jə*  
**why=IN** PRO:2SG PRO:1SG=TO what EMPH  
 ‘Why are you asking me?’
- c. *wa* ***məkanə*** *hinə* *jəre*  
*wa* ***məka=nə*** *hinə* *jə=rə*  
 PRO:2SG **why=IN** what EMPH=TO  
 ‘Why are you asking me?’

The question words themselves can also be fronted. In (84), *mbə* ‘where’ is the syntactic object in both cases, but in (84a) it remains in the unmarked position, whereas in (84b) it is fronted.

- (84) a. *wa* ***mbəra***  
*wa* ***mbə=ra***  
 PRO:2SG **where=FROM**  
 ‘Where did you come from?’
- b. ***mbəna*** *botol* *jə*  
***mbə=na*** *botol* *jə*  
**where=AT** bottle EMPH  
 ‘Where is the bottle?’

The general question particle *hinə* ‘what’ is a lexicalized root form of the verb *hinə-* ‘to ask’, while the others are etymologically opaque. There are no morphological operations possible on these particles save for the locational clitics, but the reduplicated form of *məhə* is the (lexicalized) word for ‘how many’. Question constructions with question particles are always content questions, rather than polar questions, meaning that the answer must be a sentence or lexical item rather than *əhə* ‘yes’ or *uuja* ‘no’ (85; see section 5.1).

- (85) *wa* *məhə*  
*wa* *məhə*  
 PRO:2SG how  
 ‘How are you?’

*foj*  
*foj*  
 good  
 ‘[I am] good.’

Note that using question particles is one of two question constructions, the other being prosody. Both are discussed in more detail in section 5.1 below.

#### 4.4.2 Discourse particles

The main functions of discourse particles are discourse organization and governing information structure. They are typically placed after a noun or verb phrase, depending on their scope, in order to modify certain elements, either temporally or information structurally. For example, *jə* EMPH, has many functions and can occur after virtually every element in a sentence in order to emphasize it. For example, it can emphasize the temporal sequence of events (86a), or

marking an unexpected turn of events (86b). Multiple instances of *jæ* may appear in one sentence, although not within one clause.

- (86) a. *fa nundewbokera jæ towkajnəle*  
*fa nunde-w-bo-kə-le=ra jæ tow-kə-aj-nə-le*  
 young get.lost-E-AU-PST-IND=FROM EMPH take-PST-3PL.SBJ-3SG.OBJ-IND  
 ‘A little boy was lost, but they were able to find him again.’
- b. *Jahimo toboni pele towejmaeke*  
*jahimo toboni pele tow-ej-mæ-kə-le*  
 next.day bride.price DEM take-3DL.SBJ-paddle-PST-IND  
 ‘The next day, they brought the bride price to the village.’
- Ebalə Jakali ahi jæ*  
*Ebalə Jakali ahi jæ*  
 PN not.want EMPH  
 ‘But Ebalə Jakali didn’t want it.’

The other particles have functions within the realm of discourse organization, e.g. *nə* ‘then’ (87a), verbal (temporal) semantics, e.g. *ninæ* ‘already’ (87b), and referent semantics, e.g. *mo* ‘only’ (87c).

- (87) a. *nə fa pəna tom hekenə əkənəkəwole*  
*nə fa pəna tom heke=nə ə-kə-nəkə-wo-le*  
**then** child oldest as.for garden=IN go-PST-sit-IMPF-IND  
 ‘Then, [the king’s] oldest child was made to live in the gardens.’
- b. *tejæ ninæ Onsá ərəwbokale*  
*tejæ ninæ Onsá ərəj-w-bo-kə-a-le*  
 PRO:1SG **already** PN see-E-AU-PST-1SG.SBJ-IND  
 ‘I have already seen Onsá.’
- c. *pele jæ to mbaj fəm narə əjej*  
*pele jæ to mbaj fəm na=rə ə-je-j*  
 DEM EMPH man one **even** PRO:3=TO NEG-give-NEG  
 ‘Not even one person gave [it] to him.’

The negation particle *pam* NEG functions distinctly more noun-like than the other particles, in that it can be marked with the third person possessive in order to form a word meaning ‘badness’ (88), separate from the lexical noun *himi* ‘bad’.

- (88) *atəj, tejæ nəpam pa Waloforə*  
*atəj tejæ n-pam pa Waloforə*  
 father PRO:1SG **3.POSS-NEG** just Satan=TO

*mokownobokale*  
*moko-w-nobe-bo-kə-a-le*  
 do-E-be.near-AU-PST-1SG.SBJ-IND  
 ‘Father, I did not do good because my thoughts are like demons.’

Additionally, it is used in an emphatic possessive construction to mean ‘not knowing’, possibly

with an elided noun *ataj* ‘knowledge’, (89ab). Interestingly the possession that is present on the presumably elided noun is now featured on the independent pronoun.

- (89) a. *naj pam*  
*naj pam*  
 PRO:3.POSS NEG  
 ‘S/he/they doesn’t/don’t know.’
- b. *nejæ nataj*  
*nejæ n-ataj*  
 PRO:3 3.POSS-knowledge  
 ‘S/he/they know(s).’

## 5 Interrogation, multi-verb constructions and interclausal relations

### 5.1 Interrogation

Questions are generally created using the question words, which were briefly discussed in section 4.4.1 above. The question words are: *hinə* ‘what’, *məka* ‘why’, *məhə* ‘how’, and *mbə* ‘where’, and they are placed either in situ, or at the beginning of a sentence. In the former position, the question word indicates which element must be answered, either simply with the lexical word that is being questioned (90b), or by repeating the sentence with the correct lexical word replacing the question word (90c).

- (90) a. *waj to hinə*  
*waj to hinə*  
 PRO:2SG.POSS name what  
 ‘What is your name?’
- b. ‘*Gershon.*’
- c. *taj to Gershon*  
*taj to Gershon*  
 PRO:1SG.POSS name PN  
 ‘My name is Gershon.’

Multiple question words can be placed in one sentence (91c). Additional information structure strategies can be applied as well, such as placing a discourse particle after the question word (91c), or the fronting of a pronoun in order to focalize it (91d).

- (91) a. *məkanə obo kəndin*  
*məka=nə obo kəndin*  
 why=IN pig small  
 ‘Why is the pig small?’
- b. *nejæ hinə?*  
 PRO:3 what  
 ‘Who is he?’

- c. *məkanə* *wejæ* *tarə* *hinə* *jæ*  
**məka=nə** *wejæ* *ta=rə* **hinə** *jæ*  
**why=IN** PRO:2SG PRO:1SG=TO **what** already  
‘Why are you asking me?’
- d. *wa* *məkanə* *hinə* *jare*  
**wa** *məka=nə* *hinə* *ja=rə*  
**PRO:2SG** *why=IN* *what* *already=TO*  
‘Why are you asking me?’

As seen above, question words can appear in object position, however, there are no instances of a question word in subject position in the data. In cases where the subject is interrogated, either an independent pronoun is used (92a), or the subject is left out altogether (92b). It can currently not be said whether this is due to the dataset, simply a preference or a grammatical feature.

- (92) a. *məjæ* *tare* *wabənsəhinde?*  
*məjæ* *ta=re* *wabə-n-he-hi-n-le*  
PRO:2PL PRO:1SG=TWDS *trick-3SG.OBJ-break-CONN-3SG.OBJ-IND*  
‘Who can trick me?’
- b. *təkənə* *jæ* *tare* *wabənsəhinde?*  
*təkənə* *jæ* *ta=re* *wabə-n-he-hi-n-le*  
DEM.MEX=IN EMPH PRO:1SG=TWDS *trick-3SG.OBJ-break-CONN-3SG.OBJ-IND*  
‘Here, who can trick me?’

Some questions, specifically polar questions, are formed with prosody. While question sentences, regardless of their construction, are usually accompanied by rising intonation, this intonation can also function as a question marker in itself when added to an otherwise indicative sentence, in which case the result is a polar question (93a). Additionally, the emphatic particle *jæ* EMPH can be placed at the end to indicate that the scope of the question is over the whole sentence (93b). In the examples, the question marker <?> indicates rising intonation.

- (93) a. *wa* *foj?*  
*wa* *foj*  
PRO:2SG *good*  
‘How are you?’
- b. *wa* *hamam* *anokokæ?*  
*wa* *hamam* *anə-ko-kə* *jæ*  
PRO:2SG *food* *eat-PLU-PST* EMPH  
‘Have you eaten?’

While these are polar questions, the minimal answer consisting of *əhə* ‘yes’ or *uuja* ‘no’, replies can also consist of a portion or the entirety of the posed question, as in (94a) and (94b), which are replies to the questions in (93a) and (93b), respectively.

- (94) a. *foj*  
foj  
good  
‘[I am] well.’
- b. (*əhə*) *tejæ*      *hamam* *ninæ*      *anokokale*  
*əhə*    *wa*      *hamam* *ninæ*      *anə-ko-kə-a-le*  
yes    PRO:2SG    food      already    eat-PLU-PST-1SG.SBJ-IND  
‘(Yes,) I have already eaten.’

Since these constructions are relatively rare outside of conventionalized exchanges, such as the greeting in (93a), it is unknown whether the emphatic particle is a strict requirement for question sentences that feature a verb, which also obscures whether the indicative marker is present or not in (93b). The lack of emphatic particle in (94b) may indicate its optionality, but this cannot be taken as definitive evidence at this time.

## 5.2 Multi-verb constructions

There are three multi-verb constructions in Sentani: Serial Verb Constructions, Verb compounds, and what I am calling Close Event Sequences.

Serial Verb Constructions (SVCs), where two (or more) verbs share one argument structure and inflection and describe a single event (e.g. Bisang 2009), are extremely common in Sentani. So common, in fact, that it is generally easier to refer to the verb complex rather than simply the ‘verb’. Additionally, there are verb compounds, in which the presence of an additional verb modifies the action of another verb rather than the event as a whole. Lastly there are Close Event Sequences, which share at least one argument but have separate argument structure and denote separate events. Table 33 shows the differentiating factors of the three constructions.

	Shared Argument Structure	Single Event	Single Action
<b>SVC</b>	Yes	Yes	No
<b>Verbal Compound</b>	Yes	Yes	Yes
<b>Close Event Sequence</b>	Yes/No	No	No

Table 33 Differentiating elements of the three multi-verb constructions.

First, in an SVC (95a), the verb roots share an argument structure, and the subject is marked on both verbs. Second, a verbal compound (95b) consists of two juxtaposed verbs without any interfering morphology whatsoever, and subsequently they are treated morphologically as a single verb root in the verb complex. Finally, a Close Event Sequence (95c) differs from a multi-clausal construction in that there can be no interfering elements between the two verbs. (95a-c) give examples of the three constructions, and each type of multi-verb construction will be discussed individually below:

- (95) a. *ta*              *pækənə*              *moninə*              *məkakalæle*  
*ta*              *pækə=nə*              *moni=nə*              *m-nəkə-a-kale-a-le*  
PRO:1SG    DEM.PROX=IN    hunger=IN    VENT-sit-1SG.SBJ-suffer-1SG.SBJ-IND  
‘Here I live hungrily.’

- b. *wena məhǎ́-məhǎ́ obo hopowkoke*  
*wena məhǎ́-məhǎ́ obo hə-po-w-ko-kə-le*  
 yesterday how.much pig hit-strike-E-PLU-PST-IND  
 ‘How many pigs were slaughtered yesterday?’
- c. *na hokolo fa tom na kətə-nalə*  
*na hokolo fa tom na kətə-nalə jə*  
 PRO:3 young.person young as.for PRO:3 possessions EMPH
- tom nanəmənə atiləwole aloonokoke*  
*tom nanəmənə atilə-wo-le alo-w-moko-ko-kə-le*  
 as.for all gather-IMPF-IND go.to-E-do-PLU-PST-IND  
 ‘His young son took all his belongings and went to live alone.’

In an SVC, the explicit marking of arguments tends to be only on the second verb root, but it is possible to mark arguments on each individual verb root. This marking does not need to be identical on both verb roots (see section 4.2). This follows the general optionality of argument marking across all verbs in Sentani. That being said, SVCs do underlyingly always share the same argument structure, meaning that, for example, an argument that serves as the subject of the first verb root cannot be (marked as) the object of the second verb root.

Verbal Compounds, on the other hand are not very frequent, and they seem to be used for highly specific constructions, such as the slaughtering of pigs (96a). In this case, simply using the verb root *hə-* ‘to hit’ would indicate only hitting the pig, non-lethally (96b), whereas the verb compound indicates the lethality of the action. Thus, the juxtaposition of two verb roots modifies the semantics of one or even both of them. In this sense, they can in some cases be seen as a form of exocentric compounds, as the resulting semantics of the compound does not necessarily strictly follow from each individual verb root. Other verbal compounds are not as restricted; the compound in (96c-d) can be used as long as the object is animate.

- (96) a. *tejə obo məhini-pe hopowkale*  
*tejə obo məhini-pe hə-po-w-kə-a-le*  
 PRO:1SG pig seven hit-strike-E-PST-1SG.SBJ-IND  
 ‘I slaughtered seven pigs.’
- b. *hənəjbo*  
*hə-nə-j-bo*  
 hit-3SG.OBJ-2SG.SBJ-AU  
 ‘Hit him/her/it!’
- c. *tejə nare hapəkokale*  
*tejə na=re ha-po-ko-kə-a-le*  
 PRO:1SG PRO:3=TWDS take.along-strike-PLU-PST-1SG.SBJ-IND  
 ‘I have beaten him up.’
- d. *tejə obo hapokokale*  
*tejə obo ha-po-ko-kə-a-le*  
 PRO:1SG pig take.along-strike-PLU-PST-1SG.SBJ-IND  
 ‘I have beaten up the pig.’

The morphological status of *po-* ‘to strike’ is still clearly verbal in (96), but it is possible that this verb root is developing into an affectedness marker, a process we have seen in other verb roots as well as the historic origin of some other markers (see section 4.2.2).

The Close Event Sequence indicates a sequence of two events that occur in an immediate sequence. More specifically, since it is a monoclausal construction, it describes two smaller actions, which are closely connected sequentially, occurring within one event. It may initially seem that this is a multi-clausal construction where the second clause consists only of a verb, there is a crucial difference between the two: A Close Event Sequence can have no interfering arguments between the two verb complexes, as in (97a). If constituents are placed between two inflected verbs (97b), the events, while still sequential, do not necessarily follow each other immediately and/or are spread out over a longer time span. (97b) can thus not be considered a Close Event Sequence but are two individual clauses. In a Close Event Sequence, both arguments are independently inflected and can thus feature all regular verbal morphology, but there is a tendency to have one verb with fewer morphological elements than the other.<sup>27</sup>

- (97) a. *pele jona to mbajrə əke*  
*pele jo=na to mbaj=rə ə-kə-le*  
 DEM village=AT man one=TO go-PST-IND

*əwnəhikəwnuke*

*ə-w-nə-hikə-w-nu-kə-le*

go-E-3SG.OBJ-say-3SG.SBJ-REFL-PST-IND

‘Then, one man from the village came and told [him]:...’

- b. *ta atununde məkore pukore*  
*ta atunə-nu-n-le m-əkore pukore=rə*  
 PRO:1SG connect-REFL-3SG.OBJ-IND 1PL.POSS-father=TWDS presence=TO

*əralere*

*ə-rəj-te-le*

see-1SG.SBJ.FUT-IND

*məkorə*

*m-əkore=rə*

1PL.POSS-father=TO

*ələnwənde*

*ələ-an-wə-an-le*

say-3SG.OBJ-ask-3SG.OBJ-IND

‘I will go to my father and [then] say to him:...’

(97a) shows that a combination of a Close Event Sequence and an SVC is also possible, which is in this case especially interesting since the same verb stem, *ə-* ‘go’, appears both in the Close Event Sequence verb and in the SVC, which clearly delineates two separate events, i.e. one of ‘coming’ and one of ‘telling him’. It also shows that, while in an SVC the valency of the most-valent verb is followed, the roots themselves are not ambivalent, since the verb root *ə-* ‘go’ by itself is strictly intransitive. Note that the reflexive marker *-nu* REFL in this example is a verb-specific construction to get ‘to order’ from *hikə-* ‘to say’. (98) also shows that the first verb complex in the Close Event Sequence can be an SVC as well. In this example, the second verb complex, with the verb root *ə-* ‘go’, expresses the continuing, or perhaps repetitive, manner of the first event. While Close Event Sequences seem to require at least one of the verb complexes

<sup>27</sup> A structural study of the specific number and type of different markers on the verb roots could perhaps shed light on the syntactic hierarchy of both the verb root order and the markers themselves; but further data is necessary for this to be possible.



expressing motion, this does not seem to be a prerequisite to the construction, since either the first, the second or both can contain the motion verb.

- (98) *mojra na u pənə*  
 moj=ra na u pənə  
 after=FROM PRO:3 body thought

*məwnənəkəwfike ələle*  
 m-ə-w-nə-nəkə-w-hi-kə-le ə-le=re  
 VENT-go-E-3SG.OBJ-sit-E-CONN-PST-IND go-IND=TWDS  
 ‘After that, he came to his senses, saying.’

Further research can reveal whether the presence of a motion verb is a strict requirement of the construction or if it is prevalent due to the semantic circumstances, e.g. it is required to move to a certain location in order to speak to someone. Additionally, a Close Event Sequence can consist of more than two verb complexes, as shown in (99b), but this is relatively rare.

- (99) a. *məkate habəkaj wahewate*  
 m-ə-kə-aj-le habəkaj wahe-wo-aj-le  
 VENT-go-PST-3PL.SBJ-IND tobacco divide-IMPF-3PL.SBJ-IND

*hulunə-hulunə hiwnewate*  
 hulu=nə hulu=nə hiwne-wo-aj-le  
 string=IN string=IN string.up-IMPF-3PL.SBJ-IND  
 ‘They went, and divided the tobacco, tying it into parcels.’

- b. *pajwate kalawate mokowate*  
 paj-wo-aj-le kala-wo-aj-le moko-wo-aj-le  
 hang.up-IMPF-3PL.SBJ-IND dry-IMPF-3PL.SBJ-IND do-IMPF-3PL.SBJ-IND  
 ‘They hung it [the tobacco] up and cured it.’

### 5.3 Interclausal relations

Due to the nature of this sketch grammar, it is not possible to go into much detail about supra-clausal aspects of the language, such as referent tracking, discourse organization or narrative styles. In this section, however, I will give a very brief overview of a few strategies used in narratives to link clauses. Discourse particles are frequently used to continue a narrative and/or link two clauses, and some of their functions have been discussed in section 4.4.2. Additionally, temporal indications, such as *ja mbaj* ‘one day’ and *jahimo* ‘the next day’<sup>28</sup> can serve to progress the time in a narrative, but demonstratives are also very prominently used, especially the general demonstrative *pele* DEM. While in some cases they function to track referents established in the previous sentence (100a-b), they can also be used more generally, for example in the often occurring *pelena* ‘then’, which consists of the demonstrative and the general static locational enclitic =*na* AT (100c-d).

<sup>28</sup> This is a lexicalization from *ja* ‘day’, *hi* ‘other’ and *mo* ‘just’.

- (100) a. *jo ahawrə əwole*  
*jo ahaw=rə ə-wo-le*  
village far=TO go-IMPF-IND  
‘He went to a village far away.’
- b. *pele jo əjnə moni-maj kabam nəke*  
**pele jo** əj=nə moni maj kabam nəkə-le  
**DEM village** inside=IN hunger disaster big sit-IND  
‘In that village there was a great famine.’
- c. *Jakali nuwəwboke tæfetæfetəne halewole*  
Jakali nuwə-w-bo-kə-le tæfetæfetəne hale-wo-le  
PN rest-E-AU-PST-IND chuckling laugh-IMPF-IND
- d. *Pelena mo awnguke məke*  
**pele=na** mo a-w-nu-kə-le m-ə-kə-le  
**DEM=AT** just take-E-REFL-PST-IND VENT-go-PST-IND
- nəkəkoke ələle:*  
nəkə-ko-kə-le ə-le=re  
sit-PLU-PST-IND go-IND=TWDS  
‘Jakali sat down and cackled. Then, he stood up again and said:...’

Note that, for the reference tracking use of the demonstrative(s), the clauses can be, but are not necessarily, adjacent. For example, there are three sentences between (100a) and (100b), which are all in the same location, but concern the actions of the agent in (100a). The reintroduction of the referent *jo* ‘village’ in (100b) thus serves to indicate that the narrative is moving forward, e.g. a new section is starting, while showing the connection with the previous events.

Tail-head linkage also occurs regularly, although not very frequently. Linkage here means that the final verb of a clause is repeated at the beginning of the succeeding clause. While the verb stem remains the same, the inflection can change (101a-b).

- (101) a. *Jahimo paj Jakali janewfoke*  
jahimo paj jakali jane-w-fo-kə-le  
next.day just PN run.and.hide-E-cross-PST-IND
- naj jore əwole*  
naj jo=re ə-wo-le  
PRO:3.POSS village=TWDS go-IMPF-IND  
‘The next day, Jakali ran away back to his village.’
- b. *məkə naj to u ja*  
**m-ə-kə** naj to u ja  
**VENT-go-PST** PRO:3.POSS man body already
- pənəwhoke nəkəwole*  
pə-nə-w-ho-kə-le nəkə-wo-le  
return-3SG.OBJ-E-DIR.FRM-PST-IND sit-IMPF-IND  
‘He returned as a man.’

Due to its relative infrequency (likely also caused by the type of data collected for this grammar), it is impossible to see whether tail-head linkage is conventionalized or grammaticalized in any way, but there seems to be a preference for linkage when the last verb of the first clause is a motion verb, specifically *a-* ‘to go’. The position of the repeated verb in clause-initial position in addition to one or more other verbs in regular position do indicate that these are instances of clause linkage, rather than coincidental use of the same verb root twice.

## 6 Summary and Conclusion

To summarize this grammar sketch and give an overview of the elements of the Sentani language discussed therein is a short typological overview of the language.

Sentani is a Papuan language consisting of three dialects, West, East, and Central, belonging to the Sentanic family, and is spoken in northern New Guinea on and around Lake Sentani. It has seven vowels, /i, e, æ, ə, a, u, o/ and eleven consonants, /p, m, f, t, n, s, l, j, k, w, h/. Especially the consonants have considerable allophony depending on their phonological context, which in some instances occurs across word boundaries, and position in the word. There is a relatively small number of syllable types, V, CV, CVC<sub>glide</sub> and CVC<sub>nasal</sub>, the latter two of which have arisen relatively recently due to easily detectable phonological change. Underived words consist of minimally one and maximally three syllables, but a prosodic word can be up to six syllables, and eight moras. Primary stress is mora-based trochaic penultimate, which means that stress is placed on the penultimate syllable, unless the final syllable is heavy, i.e. CVC<sub>glide</sub> or CVC<sub>nasal</sub>, in which case stress is regularly placed on the final syllable.

Nominal morphology is minimal, with the only morphemes available to most nouns being the locational enclitics which attach to the noun phrase. One of these locational clitics, the ‘direction towards’ marker *=re* TWDS, is showing grammaticalization towards becoming an object marker. There is a small number of obligatorily possessed nouns, chiefly kinship terms, which have pronominal possessive prefixes. The noun phrase is head-initial. There are three sets of independent pronoun, one neutral, one emphasizing subject, and one emphasizing possession. The pronouns of the first person plural has an inclusive and exclusive pronoun, and there is no distinction in number for the third person pronouns.

Verbal morphology, on the other hand, is very elaborate. There is one prefix, two circumfixes, and a large number of suffixes, and, in some contexts, the locational enclitics can attach to the verb complex as well. The verb complex template contains five slots in which several markers can be put. These slots are categorized according to their formal properties, as in some cases formally identical markers belong to different functional categories. Functional categories include affectedness, movement, habitual, tense-aspect, mood, and person-number marking. Most slots can only be occupied by one marker, but there can be up to three person-number marking suffixes on each verb root. Two verb roots can occur in a single verb complex, but in this case only the final verb root is fully inflected. Existential, identifying and equative constructions are verbless clauses that consist of a subject and a nominal predicate; there are no copulas or auxiliary verbs, although one verb *a-* ‘go’ seems to be moving in this direction, albeit currently only within the verb complex.

Particles are frequently used and can have several functions, such as emphasis, discourse organization, or even adverb-like. Question words can function as particles or can be placed in situ in an interrogative construction.

The unmarked word order is SOV, but all non-verbal constituents have the option to be moved, depending on information structural processes.

There are three types of multi-verb constructions: Serial verb constructions, verbal compounds, and Close Event Sequences. The latter is a construction that indicates that two events are immediately sequential, but are distinct actions nonetheless, contrary to serial verb constructions. They are characterized by two verb complexes, each in their own verbal clause, with no interfering constituents.

While only being very briefly discussed in this grammar sketch, tail-head linkage is present in Sentani and occurs regularly, although infrequently.

This sketch grammar has given an exploratory insight into the complexities of the Sentani language. Many aspects of the language have been discussed, but for the vast majority of them restrictions in data, the nature of the data collection and space a detailed and expansive analysis was not possible. Thus, many areas of the language and its culture remain underexplored, such as affix ordering, the exact function of particles, or multi-verb constructions, or completely unexplored, such as complex clauses, most discourse-level processes, pragmatics, and indigenous knowledge. Nonetheless, I believe that the sketch grammar contains interesting and useful data and analyses, and provides many novel insights or re-analyses of previous linguistic works published on Sentani, as well as a small amount of comparative historical phonology that further supports the established Sentanic language family.

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## Appendix A: Texts

### Ebalə Jakali

This story details an adventure of Ebalə Jakali, a trickster and folk-hero, who tricks the village of Sere into giving him two canoes of tobacco as a bride price for the hand of a woman who is, in fact, Ebalə himself, dressed up.

(1)

*To mbaj nəkəwole*  
to mbaj nəkə-wo-le  
man one sit-IMPF-IND  
'There was a man.'

(2)

*Na to Ebalə Jakali*  
na to Ebalə Jakali  
PRO:3 name PN  
'His name was Ebale Jakali.'

(3)

*Naj jo Ebalə Hunu jo*  
naj jo Ebalə Hunu jo  
PRO:3.POSS village PN PN village  
'He lived in Hunu village.'

(4)

*Na wali ame-ame tannə nəkəweke*  
na wali ame-ame tan=nə nəkə-w-kə-le  
PRO:3 life trick-trick top=IN sit-E-PST-IND  
'He was a jokester.'

(5)

*Ja mbaj nəkəwole mo Hələna to pele mijé pele*  
ja mbaj nəkə-wo-le mo Hələ=na to pele mijé pele  
day one sit-IMPF-IND only PN=AT man DEM woman DEM

*kajse hawejboke*  
kaji=re hawə-ej-bo-kə-le  
female.pirogue=TWDS embark-3DL.SBJ-AU-PST-IND  
'One day, a man and a woman came by canoe from Sere...'

(6)

*Ebalə jore məwote mijánə*  
Ebalə jo=re m-ə-wo-ej-le mijé=nə  
PN village=TWDS VENT-go-IMPF-3DL.SBJ-IND woman=IN

*hinejəke*

hinə-ej-kə-le  
ask-3DL.SBJ-PST-IND  
'...to Ebalə's village, asking for women.'

(7)

*Məketə jonə hubajejkoke*  
m-ə-kə-ej-le jo=nə hubaj-ej-ko-kə-le  
VENT-go-PST-3DL.SBJ-IND village=IN meet-3DL.SBJ-PLU-PST-IND  
'Ebale said: "Why haven't we met?"'

(8)  
*Wejnə*                      *Waj*                      *mænggə*                      *pele*  
 wə-ɛj-nə                      waj                      mænggə                      pele  
 ask-3DL.SBJ-3SG.OBJ PRO:2SG.POSS girl                      DEM  
 'They asked him: "Do you have any women?"'

(9)  
*Nejə*    *wewmi*                      *əhə*    *na*    *uwa*    *hekəna*  
 nejə    wə-w-mi                      əhə    na    u    heke=na  
 PRO:3    ask-3SG.SBJ-3DL.OBJ    yes    PRO:3    body    garden=AT

*əwate*  
 ə-wo-aj-le  
 go-IMPF-3PL.SBJ-IND  
 'He answered: "Yes, but they went to the garden."'

(10)  
*tejə*                      *əhəkale*  
 tejə                      ə-ha-kə-a-le  
 PRO:1SG                      go-take.along-PST-1SG.SBJ-IND  
 'I will go and get...'

(11)  
*taj*                      *mænggə*                      *maj*                      *molore*  
 taj                      mænggə                      maj                      molo=re  
 PRO:1SG.POSS girl                      PRO:2PL.POSS husband=TWDS

*fonde*  
 fo-n-le  
 cross-3SG.OBJ-IND  
 '...my daughter for your man to marry her.'

(12)  
*Jahimo toboni*                      *pele*                      *towejməke*  
 jahimo toboni                      pele                      tow-ɛj-mə-kə-le  
 next.daybride.price                      DEM                      take-3DL.SBJ-paddle-PST-IND  
 'The next day, they brought the bride-price from there (their village).'

(13)  
*Məkənə*                      *Ebalə Jakalire*    *ukənggəle*  
 m-ə-kə=nə                      Ebalə Jakali=re    ukə-n-kə-le  
 VENT-go-PST=IN                      PN=TWDS                      tell-3SG.OBJ-PST-IND  
 'They came but Ebale Jakali told them.'

(15)  
*Ebalə Jakali*    *ahi*                      *jə*    *ukəwmi*  
 Ebalə Jakali    ahi                      jə    ukə-w-mi  
 PN                      not.want                      EMPH    tell-3SG.SBJ-3DL.OBJ  
 'He didn't want it, saying:'



(16)  
*Wewmi*                      *tejæ*                      *næko*                      *tobonire*  
wə-w-mi                      tejæ                      n-æko                      toboni=re  
ask-3SG.SBJ-3DL.OBJ    PRO:1SG                      3.POSS-father              bride.price=TWDS

*əlale*                      *ahi*                      *jæ*  
ələ-a-le                      ahi                      jæ  
speak-1SG.SBJ-IND       not.want                      EMPH  
'He said: "I, the father, don't want beads as a bride price"'

(17)  
*Taj*                      *mænggə*                      *taj*                      *kəna*                      *habəkáj*  
taj                      mænggə                      taj                      kəna                      habəkáj  
PRO:1SG.POSS girl                      PRO:1SG.POSS feeling              tobacco

*pele*    *pəmakondere*  
pele    pə-ma-ko-n-le=re  
DEM return-1PL.SBJ.FUT-PLU-3SG.OBJ-IND=TWDS  
'I want us to trade tobacco for my daughter.'

(18)  
*Nəbələnə*                      *takə*                      *to*                      *pele*                      *mijæ*                      *pele*                      *hawəjboke*  
nəbələnə                      takə                      to                      pele                      mijæ                      pele                      hawə-əj-bo-kə-le  
that=IN                      DEM.MED                      man                      DEM                      woman                      DEM                      embark-3DL.SBJ-AU-PST-IND  
'Because of that, the parents both returned by canoe.'

(19)  
*naj*                      *jore*                      *əwote*  
naj                      jo=re                      ə-wo-aj-le  
PRO:3.POSS                      village=TWDS                      go-IMP-3PL.SBJ-IND  
'They went back to their village.'

(20)  
*əkətə*    *naj*                      *Sere*                      *to-mijæ a*  
əkə-əj-lə    naj                      Sere                      to-mijæ a  
go-PST-3DL.SBJ-1SG.OBJ                      PRO:3.POSS                      PN                      person word

*əlajkoke*    *əlajkoke*  
ələ-əj-ko-kə-le    ələ-aj-ko-kə-le  
speak-3DL.SBJ-PLU-PST-IND                      speak-3PL.SBJ-PLU-PST-IND  
'When they came to Sere, they talked to the rest of the village.'

(21)  
*habəkáj heke*    *mbaj*    *mokajboke*  
habəkáj heke    mbaj    moko-aj-bo-kə-le  
tobacco garden    one    do-3PL.SBJ-AU-PST-IND  
'They all made a tobacco garden.'

(22)  
*Habəkájhakéj-hakéj*                      *hejewhoke*    *mo*                      *Ebalə*  
habəkáj hakéj-hakéj                      he-je-w-ho-kə-le    mo                      Ebalə  
tobacco pick-pick                      break-give-E-DIR.FRM-PST-IND    only                      PN

*jorə*                      *kajajməke*  
jo=rə                      kaj-aj-mə-kə-le  
village=TO                      announce-3PL.SBJ-DIR.TO-PST-IND  
'When the tobacco leaves were ripe, they sent word to Ebale's village.'

(23)

*Nane mænggə mændə pa habəkáj hakejbojse*  
nanə mænggə mændə paj habəkáj hakej-bo-aj-le  
that girl all just tobacco harvest-AU-3PL.SBJ-IND  
'First, the women prepared the tobacco (making it into bundles).'

(24)

*Tene jare mohəwboke Ebalə Jakali*  
tene ja=re mohə-w-bo-kə-le Ebalə Jakali  
early.day already=TWDS crush-E-AU-PST-IND PN

*mijé u jə molowboke*  
mijé u jə molo-w-bo-kə-le  
woman body EMPH prepare-3SG.SBJ-AU-PST-IND  
'Early in the morning, Ebale Jakali dressed like a girl.'

(25)

*Ajbokə Sere jore əwote*  
a-aj-bo-kə-le Sere jo=re ə-wo-aj-le  
take-3PL.SBJ-AU-PST-IND PN village=TWDS go-IMP-3PL.SBJ-IND  
'He was brought to Sere village.'

(26)

*Fokate əkate hekere*  
fo-kə-aj-le ə-kə-aj-le heke=re  
cross-PST-3PL.SBJ-IND go-PST-3PL.SBJ-IND garden=TWDS

*habəkáj hakačkoke məkate*  
habəkáj hakej-aj-ko-kə-le m-ə-kə-aj-le  
tobacco harvest-3PL.SBJ-PLU-PST-IND VENT-go-PST-3PL.SBJ-IND  
'They crossed and the Sere people went to their garden and harvested and brought the tobacco.'

(27)

*habəkáj hawajmijæke kaji pe*  
habəkáj hawə-aj-mije-aj-kə-le kaji pe  
tobacco embark-3PL.SBJ-3DL.OBJ-give-3PL.SBJ-PST-IND pirogue two  
'Filling two canoes with tobacco.'

(28)

*Jaka pele kələw pele*  
jaka pele kələw pele  
relatives DEM glimmering DEM  
'The relatives were there (to which the tobacco was divided).'

(29)

*Pelena mo Ebalə to-mijé hawwate*  
pele=na mo Ebalə to-mijé hawə-w-aj-le  
DEM=AT only PN person embark-E-3PL.SBJ-IND

*məwate*  
m-ə-w-aj-le  
VENT-go-E-3PL.SBJ-IND  
'Then, they left from Ebale, rowing back to their village.'

(30)

<i>Pu</i>	<i>mokonə</i>	<i>Ebalə Jakali</i>	<i>penen naj</i>	<i>to</i>	<i>u</i>	<i>jæ</i>
pu	moko=nə	Ebalə Jakali	penen naj	to	u	jæ
water	do=IN	PN	again PRO:3.POSS	man	body	EMPH

*mokowkoke*

moko-w-ko-kə-le

do-3SG.SBJ-PLU-PST-IND

'In the middle of Lake Sentani, Ebale Jakali dressed back into a man.'

(31)

<i>Pu</i>	<i>mokonə</i>	<i>te</i>	<i>pele</i>	<i>a</i>	<i>pele</i>	<i>kaji</i>
pu	moko=nə	te	pele	a	pele	kaji
water	mountain=IN	laughter DEM	word	DEM	female.pirogue	

*mæke*

mæ-kə-le

paddle-PST-IND

'In the middle of lake Sentani they laughed and laughed as they paddled.'

(32)

<i>Məkate</i>	<i>habəkáj wahewate</i>
m-ə-kə-aj-le	habəkáj wahe-wo-aj-le
VENT-go-PST-3PL.SBJ-IND	tobacco divide-IMPF-3PL.SBJ-IND

*hulunə-hulunə*

hulu=nə-hulu=nə

string=IN-string=IN

*hiwnewate*

hiwne-wo-aj-le

string.up-IMPF-3PL.SBJ-IND

'They came, and divided the tobacco, tying it into parcels.'

(33)

<i>Pajwate</i>	<i>kalawate</i>	<i>mokowate</i>
paj-wo-aj-le	kala-wo-aj-le	moko-wo-aj-le
hang.up-IMPF-3PL.SBJ-IND	dry-IMPF-3PL.SBJ-IND	do-IMPF-3PL.SBJ-IND

'They hung the tobacco up and cured it.'

(34)

<i>Jahimo Hələ</i>	<i>ondofolo</i>	<i>na</i>	<i>abu-akore</i>	<i>kaji</i>
jahimo Hələ	ondofolo	na	abu-ako=re	kaji
next.dayPN	chief	PRO:3	grandparent-friend=TWDS	female.pirogue

*a*

a ukə-w-n-kə-le

word tell-E-3SG.OBJ-PST-IND

*məwole*

m-ə-wo-le

VENT-go-IMPF-IND

'The following day, the village head called his friend to go [to Ebalə].'

(35)

<i>Məke</i>	<i>Ebalə Jakali</i>	<i>imænə</i>	<i>nəkəwole</i>
m-ə-kə-le	Ebalə Jakali	imæ=nə	nəkə-wo-le
VENT-go-PST-IND	PN	house=IN	sit-IMPF-IND

'He went to the house where Ebale Jakali was sitting.'



(42)

*Ondofolo*      *wəŋge*                      *mejæ*                      *wahena*  
ondofolo      wə-n-kə-le                      mejæ                      wahena  
chief              ask-3SG.OBJ-PST-IND      PRO:1PL.INCL      tomorrow

*məmale*

m-ə-ma-le

VENT-go-1PL.SBJ.FUT-IND

'The chief said: "Tomorrow we will come."'

(43)

*Pelena*      *mo*      *Sere*      *naj*                      *abu-ako*                      *nəwməke*  
pele=na      mo      Sere      naj                      abu-ako                      nəkə-w-mə-kə-le  
DEM=AT      only      PN      PRO:3.POSS      close.family                      sit-E-DIR.TO-PST-IND

*naj*

naj

PRO:3.POSS

*jore*

jo=re

village=TWDS

*əwole*

ə-wo-le

go-IMP-IND

'The friends and family will come to Sere village'

(44)

*əke*                      *ondofolore*                      *wəwŋge*  
ə-kə-le                      ondofolo=re                      wə-w-n-kə-le  
go-PST-IND                      chief=TWDS                      ask-3SG.SBJ-3SG.OBJ-PST-IND

'The messenger went to the chief and said:'

(45)

*əhə*      *wahenare*                      *anajbonde*  
əhə      wahena=re                      a-naj-bo-n-le  
yes      tomorrow=TWDS                      take-3PL.SBJ.FUT-AU-3SG.OBJ-IND

*mənatere*

m-ə-naj-le=re

VENT-go-3PL.SBJ.FUT-IND=TWDS

*ələjkoke*

ələ-aj-ko-kə-le

speak-3PL.SBJ-PLU-PST-IND

'Yes, they said that they will bring the girl tomorrow.'

(46)

*Tene*                      *ja*      *hewboke*                      *mo nane*                      *Jakali*  
tene                      ja      he-w-bo-kə-le                      mo nanə                      Jakali  
early.day                      day      break-3SG.SBJ-AU-PST-IND                      only that                      PN

*mijé*      *u*      *ja*      *molowboke*

mijé      u      ja

woman body

already

prepare-3SG.SBJ-AU-PST-IND

'Early that morning, Jakali made himself look like a girl again.'

(47)

*Ajboke*                      *Sere*      *jore*                      *əwate*  
a-aj-bo-kə-le                      Sere      jo=re                      ə-wo-aj-le  
take-3PL.SBJ-AU-PST-IND                      PN      village=TWDS                      go-IMP-3PL.SBJ-IND

'They went over to Sere.'

(48)

*əkate*

ə-kə-aj-le

go-PST-3PL.SBJ-IND

*hajnəboke*

ha-aj-nə-bo-kə-le

take.along-3PL.SBJ-3SG.OBJ-AU-PST-IND

'They escorted him to Sere.'

(49)

Sere to-mijæ əɾəjbo pulojbo  
Sere to-mijæ əɾəj-bo pulo-aj-bo  
PN person see-AU speak.together-3PL.SBJ-AU

əlewajna pulewajna  
ələ-w-aj-nə pule-wo-aj-nə  
speak-3SG.SBJ-3PL.SBJ-3SG.OBJ chat-IMP-3PL.SBJ-3SG.OBJ  
'The people of Sere saw him and chatted amongst themselves.'

(50)

Na u pənəre nəkəwajmi takə mijæ na  
na u pənə=re nəkə-w-aj-mi takə mijæ na  
PRO:3 body thought=TWDS sit-E-3PL.SBJ-3DL.OBJ DEM.MED woman PRO:3

u to wanen to wanen  
uwa to wanen to wanen  
body man like man like  
'They thought "Is this person a boy or a girl?"'

(51)

Jakali wəwmi  
jakali wə-w-mi  
PN ask-3SG.SBJ-3DL.OBJ  
'Jakali said:'

(52)

tejæ to pam ma tejæ mijæ jæ  
tejæ to pam ma tejæ mijæ jæ  
PRO:1SG man NEG PRO:2PL PRO:1SG woman EMPH  
'"I am not a boy, I am a girl."'

(53)

To pele honale uwa taj  
to pele hono-a-le u taj  
man DEM lie.down-1DL.SBJ.FUT-IND body PRO:1SG.POSS

nimə kətəmate  
nimə kətə-naj-le  
breast grow-3PL.SBJ.FUT-IND  
'"Someone will be able to sleep with me, when my breasts have grown."'

(54)

Takə a wanen ukəwminə nejæ  
takə a wanen ukə-w-mi-nə nejæ  
DEM.MED word like tell-3SG.SBJ-3DL.OBJ-3SG.OBJ PRO:3

isajəwboke  
isajə-w-bo-kə-le  
know-E-AU-PST-IND  
'They understood what he told them.'

(55)

<i>Jahimo paj</i>	<i>Jakali</i>	<i>janewfoke</i>		<i>naj</i>
jahimo paj	Jakali	jane-w-fo-kə-le		naj
next.dayjust	PN	run.off-E-cross-PST-IND		PRO:3.POSS

<i>jore</i>	<i>əwole</i>
jo=re	ə-wo-le
village=TWDS	go-IMPF-IND

'The next day, Jakali ran off and returned to his village.'

(56)

<i>Məkə</i>	<i>naj</i>	<i>to</i>	<i>u</i>	<i>ja</i>
m-ə-kə	naj	to	u	ja
VENT-go-PST	PRO:3.POSS	man	body	day

<i>pənəwhoke</i>	<i>nəkəwole</i>
pə-nə-w-ho-kə-le	nəkə-wo-le
return-3SG.OBJ-3SG.SBJ-DIR.FRM-PST-IND	sit-IMPF-IND

'Coming back, he returned back [from a woman] to a man.'

(57)

<i>Sere</i>	<i>takejkajnə</i>	<i>annə</i>	<i>nənakəre</i>
Sere	takej-ko-aj-nə	ana=nə	n-nakə=re
PN	wait-PLU-3PL.SBJ-3SG.OBJ	mother=IN	3.POSS-mother=TWDS

<i>nəkore</i>	<i>nawejboke</i>	<i>Ebalə</i>	<i>jore</i>
n-əkə=re	naw-ej-bo-kə-le	Ebalə	jo=re
3.POSS-father=TWDS	?-3DL.SBJ-AU-PST-IND	PN	village=TWDS

<i>awejmæke</i>
a-w-ej-mæ-kə-le
take-E-3DL.SBJpaddle-PST-IND

'They [the man and the woman] waited for him, but then they paddled back to Ebalə's village.'

(58)

<i>Məkəte</i>	<i>Jakali</i>	<i>jə</i>	<i>hinəwmi</i>
m-ə-kə-ej-le	Jakali	jə	hinə-w-mi
VENT-go-PST-3DL.SBJ-IND	PN	EMPH	ask-3SG.SBJ-3DL.OBJ

'When they came, Jakali asked them:'

(59)

<i>Məjə</i>	<i>təkəre</i>	<i>məkəwbe</i>
məjə	təkə=re	m-ə-kə-ew-le
PRO:2PL	DEM.MED=TWDS	VENT-go-PST-2DL.SBJ-IND

'''Why did you come here?'''

(60)

<i>əlabihi</i>	<i>wanen</i>
əlabihi	wanen
?	like

'''What do you want to ask me?'''





(68)

<i>Məjæ</i>	<i>tare</i>		<i>wabənsəhinde</i>
məjæ	ta=re		wabə-n-he-hi-n-le
PRO:2PL	PRO:1SG=TWDS		trick-3SG.OBJ-break-CONN-3SG.OBJ-IND

'''Who can trick me?'''

(69)

<i>Penen jahimo</i>	<i>nane</i>	<i>to</i>	<i>pele</i>	<i>mijæ</i>	<i>pele</i>	<i>kajsa</i>
penen jahimo	nanə	to	pele	mijæ	pele	kaji=ra
again next.day	that	man	DEM	woman	DEM	female.pirogue=FROM

<i>hawəjboke</i>	<i>awəjməke</i>
hawə-əj-bo-kə-le	awə-əj-mə-kə-le
embark-3DL.SBJ-AU-PST-IND	row-3DL.SBJ-DIR.TO-PST-IND

'One day, the man and woman paddled back again to Ebale's village.'

(70)

<i>Məkəte</i>	<i>penen</i>	<i>Jakalire</i>	<i>wajne</i>
m-ə-kə-əj-le	penen	Jakali=re	wə-əj-nə
VENT-go-PST-3DL.SBJ-IND	again	PN=TWDS	ask-3PL.SBJ-3SG.OBJ

'They came and asked Jakali.'

(71)

<i>Nanə mænggə</i>	<i>pækənə</i>	<i>an</i>
nanə mænggə	pækə=nə	an
that girl	DEM.PROX=IN	?

'''Where is your daughter?'''

(72)

<i>Jakali wewmi</i>	<i>Jangu</i>	<i>jona</i>	<i>əkə</i>
jakali wə-w-mi	Jangu	jo=na	ə-kə
PN ask-3SG.SBJ-3DL.OBJ	bush.person	village=AT	go-PST

<i>Pelera</i>	<i>pele</i>	<i>kəna</i>	<i>kowate</i>
pele=ra	pele	kəna	moko-w-əj-le
DEM=FROM	DEM	feeling	do-E-3PL.SBJ-IND

'Jakali said: "I think she went to the bush people village."'

(73)

<i>Pele</i>	<i>to</i>	<i>pele</i>	<i>mijæ</i>	<i>pele</i>	<i>Jakalire</i>	<i>wajne</i>
pele	to	pele	mijæ	pele	Jakali=re	wə-əj-nə
DEM	man	DEM	woman	DEM	PN=TWDS	ask-3PL.SBJ-3SG.OBJ

'The man and woman asked Jakali.'

(74)

<i>ənnə</i>	<i>jawən</i>	<i>kombe</i>
ə-n-nə	jawə-n	moko-əm-le
go-3SG.OBJ-3SG.OBJ	lead-3SG.OBJ	do-2PL.SBJ.FUT-IND

*məmberə*  
m-ə-əm-le=rə  
VENT-go-2PL.SBJ.FUT-IND=TO  
'''Bring her back'''

(75)

*Pelena Jakali wewmi takə Janggu*  
pele=na Jakali wə-w-mi takə Janggu  
DEM=AT PN ask-3SG.SBJ-3DL.OBJ DEM.MED bush.person

*fəla pele totandenə*  
fəla pele tota-n-le=nə  
arrow DEM shoot-3SG.OBJ-IND=IN

'Then, Jakali said: "There a bushman will shoot me with his arrows!"'

(76)

*Tejə nahuluj pam*  
tejə nahuluj pam  
PRO:1SG know.exactly NEG

'"I cannot help."'

(77)

*Məjə kəna kombere ənnə*  
məjə kəna moko-əm-le=re ə-n-nə  
PRO:2PL feeling do-2PL.SBJ.FUT-IND=TWDS go-3SG.OBJ-3SG.OBJ

*jawən kombe*  
jawən-n moko-əm-le  
lead-3SG.OBJ do-2PL.SBJ.FUT-IND

'"If you want her, you must bring her back."'

(78)

*Pelena pele to pele mijé pele fe jə*  
pele=na pele to pele mijé pele fe jə  
DEM=AT DEM man DEM woman DEM fear EMPH

*fəwote*  
fə-wo-ej-le  
fear-IMPF-3DL.SBJ-IND

'The man and woman were afraid.'

(79)

*ələte takə mijé jawəjboke nahuluj*  
ələ-ej-le takə mijé ə-jawə-j-bo-kə-le nahuluj  
speak-3DL.SBJ-IND DEM.MED woman NEG-lead-NEG-AU-PST-IND know.exactly

*pam nibi u*  
pam nibi u  
NEG path body

'They said: "We don't know the way so we cannot get her back."'

(80)

*Pelena mo pele to pele mijé pele hawəjboke*  
pele=na mo pele to pele mijé pele hawə-ej-bo-kə-le  
DEM=AT only DEM man DEM woman DEM embark-3DL.SBJ-AU-PST-IND

*naj jore əwote*  
naj jo=re ə-wo-aj-le  
PRO:3.POSS village=TWDS go-IMPF-3PL.SBJ-IND

'Then the man and woman paddled back to their village'

(81)

Jakali	nuwəwboke	təfetəfetəne	halewole
jakali	nuwə-w-bo-kə-le	təfetəfetəne	hale-wo-le
PN	rest-E-AU-PST-IND	chuckling	laugh-IMPF-IND

'Jakali sat down and cackled.'

(82)

<i>Pelena</i>	<i>mo</i>	<i>awnguke</i>	<i>məke</i>	<i>nəkəkoke</i>
pele=na	mo	a-w-nu-kə-le	m-ə-kə-le	nəkə-ko-kə-le
DEM=AT	only	take-E-REFL-PST-IND	VENT-go-PST-IND	sit-PLU-PST-IND

*ələle*

ələ-le

speak-IND

'He stood up and said.'

(83)

<i>tejæ</i>	<i>Jakali</i>	<i>nəkale</i>
tejæ	Jakali	nəkə-a-le
PRO:1SG	PN	sit-1SG.SBJ-IND

'I am Jakali!'

(84)

<i>əwabəj</i>	<i>kəlu</i>	<i>pe</i>	<i>nəkale</i>
ə-wabə-j	kəlu	pe	nəkə-a-le
NEG-trick-NEG	son	face	sit-1SG.SBJ-IND

'"One cannot trick the son that sits before you!"'

(85)

<i>Takənə</i>	<i>jæ</i>	<i>tare</i>	<i>wabənsəhinde</i>
takə=nə	jæ	ta=re	wabə-nhə-hi-n-le
DEM.MED=IN	EMPH	PRO:1SG=TWDS	trick-3SG.OBJhit-CONN-3SG.OBJ-IND

'"Here, who can challenge me in tricking?"'

(86)

<i>Jakali</i>	<i>Serere</i>	<i>wabəwmihike</i>
jakali	Sere=re	wabə-w-mi-hi-kə-le
PN	PN=TWDS	trick-E-3DL.OBJ-CONN-PST-IND

'Jakali played tricks on [the man and woman from] Sere.'

(87)

<i>Ahuba</i>	<i>naj</i>	<i>sangka</i>	<i>ninæ</i>
ahuba	naj	sangka	ninæ
story	PRO:3.POSS	end	already

'This is the end of the story.'

## Fa Nundewboke

This text is a translation of the Parable of the Prodigal Son, a Christian parable (Luke 15 11:32) about a father with one wasteful and one loyal son.

(1)

*Fa nundewbokera jæ towkajnəle*  
fa nunde-w-bo-kə-le=ra jæ tow-kə-aj-nə-le  
child get.lost-E-AU-PST-IND=FROM EMPH take-PST-3PL.SBJ-3SG.OBJ-IND  
'A little boy ran away but he was found again.'

(2)

*To mbaj na kəlu fa pe*  
to mbaj na kəlu fa pe  
man one PRO:3 son child two  
'A man had two sons.'

(3)

*Hokolo-fa tommæ nækorə wəwnə*  
hokolo-fa tom-jæ n-æko=rə wə-w-nə  
young-child as.for-EMPH 3.POSS-father=TO ask-E-3SG.OBJ  
'The young boy asked his father:'

(4)

*Atəj jetoko taj maj*  
atəj je-j-lə-ko taj mej  
father give-2SG.SBJ-1SG.OBJ-PLU PRO:1SG.POSS PRO:1PL.INCL.POSS

*kətə-nalə tom*  
kətə-nalə tom  
things as.for  
'"Father, give me my things."

(5)

*Na kətə-nalə wahewmikoke*  
na kətə-nalə wahe-w-mi-ko-kə-le  
PRO:3 things divide-E-3DL.OBJ-PLU-PST-IND  
'He divided his goods to them.'

(6)

*Nə ja məhə-məhə pam mo pelera*  
nə ja məhə-məhə pam mo pele=ra  
then day how.much NEG only DEM=FROM  
'After some time,'

(7)

*Na hokolo-fa tom na kətə-nalə tom nanəmənə*  
na hokolo-fa tom na kətə-nalə jæ tom nanəməndə  
PRO:3 young-child as.for PRO:3 things EMPH as.for all

*atiləwole alownokoke*  
atilə-wo-le alo-w-moko-ko-kə-le  
gather-IMPF-IND go.to-E-do-PLU-PST-IND  
'his young son took all his belongings and went to live alone'

(8)

*Jo ahawrə əwole*  
 jo ahaw=rə ə-wo-le  
 village far=TO go-IMPF-IND  
 'In a village far away.'

(9)

*Tikənə na kətə-nalə əwsajəwboke*  
 tikə=nə na kətə-nalə ə-w-sajə-w-bo-kə-le  
 DEM.DIST=IN PRO:3 things go-E-squander-3SG.SBJ-AU-PST-IND  
 'There, he squandered his things.'

(10)

*Na u kabamrə əke nəkəwole nə*  
 na u kabam=rə ə-kə-le nəkə-wo-le nə  
 PRO:3 body big=TO go-PST-IND sit-IMPF-IND then  
 'He lived lavishly (lit. he lives his big body like that).'

(11)

*Pele jo əjnə moni-maj kabam nəke*  
 pele jo əj=nə moni-maj kabam nəkə-kə-le  
 DEM village inside=IN hunger-disaster big sit-PST-IND  
 'In that village, there was a great famine.'

(12)

*Pele jona to mbajrə əke*  
 pele jo=na to mbaj=rə ə-kə-le  
 DEM village=AT man one=TO go-PST-IND

*əwnəhikəwnuke*

ə-w-nə-hikə-w-nu-kə-le  
 go-E-3SG.OBJ-say-E-REFL-PST-IND  
 'One man from the village came and ordered him.'

(13)

*Pele to ukəwnə na hekerə nobo kajarə*  
 pele to ukə-w-nə na heke=rə n-obo kaja=rə  
 DEM man tell-E-3SG.OBJ PRO:3 garden=TO 3.POSS-pig guard=TO  
 'The man told him to be the pigs' guard.'

(14)

*Nə jahələrə ambonderə obo maj na*  
 nə jahələ=rə ano-bo-n-le=rə obo maj na  
 then stomach=TO eat-AU-3SG.OBJ-IND=TO pig PRO:2PL.POSS PRO:3

*əhamam mohi-mohi jə ki owownə*  
 ə-hamam mohi-mohi jə ki o-wo-w-nə  
 CLF:FOOD-food dirt EMPH saliva descend-IMPF-3SG.SBJ-3SG.OBJ  
 'He was so hungry, even the pigs' fodder made him drool.'

(15)

*Pele jə to mbaj fəm narə əjej*  
 pele jə to mbaj fəm na=rə ə-je-j  
 DEM EMPH man one even PRO:3=TO NEG-give-NEG  
 'Not one person gave him anything.'

(16)

*Mojra na u pənə*  
moj=ra na u pənə  
after=FROM PRO:3 body thought

*məwnənəkəwfike ələle*  
m-ə-w-nə-nəkə-w-hi-kə-le ələ-le  
VENT-go-E-3SG.OBJ-sit-3SG.SBJ-CONN-PST-IND speak-IND  
'After that, he came to his senses (lit. His body went and stayed with his thoughts), saying:'

(17)

*Məhə-məhə hələm nəm məkore u foj əhamam*  
məhə-məhə hələm nəmə m-əko=re u foj ə-hamam  
how.much much all 1PL.POSS-father=TWDS body good CLF:FOOD-food

*na hələm jəle əkajjodate*  
na hələm jəle ə-kə-aj-jado-aj-le  
PRO:3 much with go-PST-3PL.SBJ-fetch-3PL.SBJ-IND  
"How many people people come here to eat together?"

(18)

*Ta pəkənə moninə məkəkələle*  
ta pəkə=nə moni=nə m-nəkə-a-kale-a-le  
PRO:1SG DEM.PROX=IN hunger=IN VENT-sit-1SG.SBJ-suffer-1SG.SBJ-IND  
"Here I live hungrily."

(19)

*Ta atununde məkore pukorə*  
ta atunə-nu-n-le m-əko=re puko=rə  
PRO:1SG connect-REFL-3SG.OBJ-IND 1PL.POSS-father=TWDS presence=TO

*əralere məkorə ələnwənde*  
ərej-te-le m-əko=rə ələ-an-wə-an-le  
see-1SG.SBJ.FUT-IND 1PL.POSS-father=TO speak-3SG.OBJ-ask-3SG.OBJ-IND  
'I will go to my father and say to him:'

(20)

*Atəj tejə nəpam pa Waloforə*  
atəj tejə n-pam paj Walofo=rə  
father PRO:1SG 3.POSS-NEG just Satan=TO

*mokownobokale*  
moko-w-nobe-bo-kə-a-le  
do-E-be.near-AU-PST-1SG.SBJ-IND  
"Father, I did not do good, because my thoughts are like demons."

(21)

*Warə mokowbokawale wa kəlu jə*  
wa=rə moko-w-bo-kə-aw-a-le wa kəlu jə  
PRO:2SG=TO do-E-AU-PST-2SG.OBJ-1SG.SBJ-IND PRO:2SG son EMPH

*tarə əwətəmmə*  
ta=rə ə-wə-j-lə-əmja  
PRO:1SG=TO NEG-ask-NEG-1SG.OBJ-2PL.SBJ.FUT EMPH  
"Do not call me your son."

(22)

*Wa*            *u*        *foj*        *jæ*        *kænətə*  
wa            u        foj        jæ        kænə-j-lə  
PRO:2SG      body    good    EMPH    call-2SG.SBJ-1SG.OBJ  
"Call me your servant!"

(23)

*Awnuke*                      *nækore*                      *pukorə*                      *əwole*  
a-w-nu-kə-le                      n-æko=re                      puko=rə                      ə-wo-le  
take-E-REFL-PST-IND    3.POSS-father=TWDS                      presence=TO                      go-IMPF-IND  
'He got up and went to his father.'

(24)

*Məmam na*        *ahawwə*                      *nəko*                      *ərakəwnə*  
məmam na        ahaw-jæ                      n-æko                      ərəj-kə-w-nə  
still    PRO:3    far-EMPH                      3.POSS-father                      see-PST-3SG.SBJ-3SG.OBJ  
'But from afar his father saw him.'

(25)

*Hakawboke*                      *na*        *kəlure*                      *urə*  
haka-w-bo-kə-le                      na        kəlu=re                      u=rə  
run-3SG.SBJ-AU-PST-IND                      PRO:3    son=TWDS                      body=TO

*towkəwnə*

tow-kə-w-nə  
take-PST-3SG.SBJ-3SG.OBJ  
'He ran up to his son and cradled him.'

(26)

*Joj-pulu*                      *hunəwownə*                      *kəna*        *puhə*  
joj-pulu                      hunə-wo-w-nə                      kəna        puhə  
nose-hole                      sniff-IMPF-3SG.SBJ-3SG.OBJ                      feeling    pain

*hewownə*

he-wo-w-nə  
break-IMPF-3SG.SBJ-3SG.OBJ  
'He cries and feels sad.'

(27)

*Pele*    *fa*        *nəkorə*                      *wəwnə*  
pele    fa        n-æko=rə                      wə-w-nə  
DEM    child    3.POSS-father=TO                      ask-E-3SG.OBJ  
'The boy says to his father:'

(28)

*Atəj*    *tejæ*                      *nəpam*                      *pa*        *Waloforə*  
atəj    tejæ                      n-pam                      paj        Walofo=rə  
father    PRO:1SG                      3.POSS-NEG                      just        Satan=TO

*mokownobokale*

moko-w-nobe-bo-kə-a-le  
do-3SG.SBJ-be.near-AU-PST-1SG.SBJ-IND  
"Father, I think my thoughts were entered by demons.'

(29)  
*Warə*                    *mokowbokawale*  
 wa=rə                    moko-w-bo-kə-aw-a-le  
 PRO:2SG=TO    do-E-AU-PST-2SG.OBJ-1SG.SBJ-IND  
 "I tell you."

(30)  
*Wa*                    *kəlu*    *jæ*                    *tarə*                    *əwətəmmæ*  
 wa                    kəlu    jæ                    ta=rə                    ə-wə-j-lə-əm                    jæ  
 PRO:2SG            son            EMPH    PRO:1SG=TO    NEG-ask-NEG-1SG.OBJ-2PL.SBJ.FUT    EMPH  
 "Do not call me your son."

(31)  
*Pele*    *jæ*                    *næko*                    *na*                    *u*                    *fojrə*                    *wəwmi*  
 pele    jæ                    n-æko                    na                    u                    foj=rə                    wə-w-mi  
 DEM    EMPH    3.POSS-father    PRO:3    body                    good=TO                    ask-3SG.SBJ-3DL.OBJ  
 'His father welcomed him, saying:'

(32)  
*Wəla-wəla*                    *jadonko*                    *maj*                    *malo*    *foj*                    *moj*  
 wəla-wəla                    jado-n-ko                    maj                    malo    foj                    moj  
 quickly fetch-3SG.OBJ-PLU                    PRO:2PL.POSS                    clothing good                    after

*mənnəhidəŋko*  
 m-ə-ən-nə-hidə-n-ko  
 VENT-go-3SG.SBJ.FUT-3SG.OBJ-clothe-3SG.OBJ-PLU  
 "Quickly, fetch the best clothing and clothe him!"

(33)  
*Ojbona*                    *mənə*                    *mənnənə*                    *odo*  
 ojbo=na                    mənə                    m-ə-ən-nə-nə                    odo  
 ring=AT                    hand=IN                    VENT-go-3SG.SBJ.FUT-3SG.OBJ-3SG.OBJ                    leg

*məmalu*                    *mənnəhidəŋko*  
 məmalu                    m-ə-ən-nə-hidə-n-ko  
 footwear                    VENT-go-3SG.SBJ.FUT-3SG.OBJ-clothe-3SG.OBJ-PLU  
 "Put rings on his fingers, put shoes on his feet!"

(34)  
*Obo*    *pumpum*                    *jæle*    *jahi*                    *jæle*    *towən*  
 obo    pum-pum                    jæle    jahi                    jæle    tow-ən  
 pig    fat-fat    with                    round    with                    take-3SG.SBJ.FUT

*mənnənsa*  
 m-ə-ən-nə-n-ha  
 VENT-go-3SG.SBJ.FUT-3SG.OBJ-3SG.OBJ-INS  
 "Bring a fat round pig to slaughter it for him!"

(35)  
*Amma*                    *tajmaj*                    *komale*  
 ano-ma                    tajmaj                    moko-ma-le  
 eat-1PL.SBJ.FUT                    to.party                    do-1PL.SBJ.FUT-IND  
 "Let's eat and have a feast!"



(36)

<i>Ta</i>	<i>kəlu</i>	<i>əwhərəkera</i>	<i>jæ</i>
ta	kəlu	ə-w-hərə-kə-le=ra	jæ
PRO:1SG	son	go-E-die-PST-IND=FROM	EMPH

*məwwalewboke*

m-ə-w-wale-w-bo-kə-le  
VENT-go-E-be.alive-E-AU-PST-IND  
"My son died but came back to life!"

(37)

<i>əwnundewbokera</i>	<i>jæ</i>
ə-w-nunde-w-bo-kə-le=ra	jæ
go-E-get.lost-E-AU-PST-IND=FROM	EMPH

*məwjakalawboke*

m-ə-w-jakala-w-bo-kə-le  
VENT-go-E-be.visible-E-AU-PST-IND  
"He was lost, but today he was brought back to life again."

(38)

<i>Ninə</i>	<i>anowate</i>	<i>tajmaj</i>	<i>kowate</i>
ninə	ano-w-aj-le	tajmaj	moko-w-aj-le
already	eat-E-3PL.SBJ-IND	to.party	do-E-3PL.SBJ-IND

'Finally, they all ate and had a feast.'

(39)

<i>Nə</i>	<i>fa</i>	<i>pəna</i>	<i>tom</i>	<i>hekenə</i>	<i>əkənəkəwole</i>
nə	fa	pəna	tom	heke=nə	ə-kə-nəkə-wo-le
then	child	oldest	as.for	garden=IN	go-PST-sit-IMPF-IND

'[the king's] first son, he was made to live in the garden.'

(40)

<i>Imæra</i>	<i>məwole</i>	<i>nopewnəməke</i>
imæ=rə	m-ə-wo-le	nope-w-nə-mə-kə-le
house=TO	VENT-go-IMPF-IND	approach-E-3SG.OBJ-DIR.TO-PST-IND

<i>to-mijé</i>	<i>tajmaj</i>	<i>kate</i>	<i>jæ</i>	<i>potowole</i>
to-mijé	tajmaj	moko-aj-le	jæ	poto-wo-le
person	to.party	do-3PL.SBJ-IND	EMPH	hear-IMPF-IND

'He went to his house and saw that the people were happy.'

(41)

<i>U</i>	<i>foj</i>	<i>mbaj</i>	<i>kənəwnokoke</i>	<i>hinəwnə</i>
u	foj	mbaj	kənə-w-nə-ko-kə-le	hinə-w-nə
body	good	one	call-3SG.SBJ-3SG.OBJ-PLU-PST-IND	ask-3SG.SBJ-3SG.OBJ

"Hello, are you doing well?"

(42)

<i>Takə</i>	<i>əha</i>	<i>məka</i>	<i>jæ</i>	<i>mokate</i>
takə	əha	məka	jæ	moko-kə-aj-le
DEM.MED	CLF:FOOD	why	EMPH	do-PST-3PL.SBJ-IND

"This food, why is it being cooked?"

(43)  
*Pele u foj jæ wəwnə wawbakə*  
 pele u foj jæ wə-w-nə wə-w-bo-a-kə  
 DEM body good EMPH ask-E-3SG.OBJ ask-3SG.SBJ-AU-1SG.SBJ-PST

*jæ məke atəj obo pum jæle jahi jæle jæ*  
 jæ m-ə-kə-le atəj obo pum jæle jahi jæle jæ  
 EMPH VENT-go-PST-IND father pig fat with round with EMPH

*howboke*

hə-w-bo-kə-le  
 hit-E-AU-PST-IND

'They told him his brother returned, [so] his father wanted to slaughter a pig.'

(44)  
*Na foj moj ərəkəwnənə*  
 na foj moj ərəj-kə-w-nə=nə  
 PRO:3 good after see-PST-3SG.SBJ-3SG.OBJ=IN  
 'In hope to give everyone a good life.'

(45)  
*Na pəna fa ikələkowole əjrə*  
 na pəna fa ikələ-ko-wo-le əj=rə  
 PRO:3 oldest child catch-PLU-IMPF-IND inside=TO

*nəkəwole*

nəkə-wo-le  
 sit-IMPF-IND

'The first son wanted to keep living alone.'

(46)  
*Pele na nəko məwtowke a moj-moj*  
 pele na n-əkəko m-ə-w-tow-kə-le a moj-moj  
 DEM PRO:3 3.POSS-father VENT-go-E-take-PST-IND word kind

*məkəw mokowownə*  
 m-ə-kə-w moko-wo-w-nə  
 VENT-go-PST-3SG.SBJ do-IMPF-3SG.SBJ-3SG.OBJ

'[his father came and] there his father gave a speech [lit. spoke sweetly] to his son.'

(47)  
*Pele jæ nəko towəwnə pənanəkəw*  
 pele jæ n-əkəko tow-w-nə pənə-nə-kə-w  
 DEM EMPH 3.POSS-father take-3SG.SBJ-3SG.OBJ thought-3SG.OBJ-PST-3SG.SBJ  
 'The son expressed to his father [lit. took his thinking].'

(48)  
*Takə talo hələm nəm para warə mo*  
 takə talo hələm nəmə paj=ra wa=rə mo  
 DEM.MED year much all just=FROM PRO:2SG=TO only

*uhejməjawale*

uhe-j-mə-jə-aw-a-le  
 observe-HAB-1DL.OBJ-HAB-2SG.OBJ-1SG.SBJ-IND  
 "'I always listen to you!" [lit. many years]'

(49)  
*Ta waj a ahi ələjkoj mo*  
 ta waj a ahi ə-ələ-j-ko-j mo  
 PRO:1SG PRO:2SG.POSS word not.want NEG-speak-NEG-PLU-2SG.SBJ only  
 "I never disagree with you!"

(50)  
*Pele jə wejə tare obo kəlu kəndin fəm*  
 pele jə wejə ta=re obo kəlu kəndin fəm  
 DEM EMPH PRO:2SG PRO:1SG=TWDS pig son small even

*əjej mo*  
 ə-je-j mo  
 NEG-give-NEG only  
 "[yet] you haven't [even] given me a small piglet yet!"

(51)  
*Ta taj hokolo wafew ware*  
 ta taj hokolo wafew wa=re  
 PRO:1SG PRO:1SG.POSS young companion PRO:2SG=TWDS

*tajmaj konde*  
 tajmaj moko-n-le  
 to.party do-3SG.OBJ-IND  
 "So that my friends and I can throw a party."

(52)  
*Pele jə wa kəlu takənə pam wa kətə-nalə*  
 pele jə wa kəlu takə=nə pam wa kətə-nalə  
 DEM EMPH PRO:2SG son DEM.MED=IN NEG PRO:2SG things

*mijə a mænggəarə əwsawjəwboke*  
 mijə a mænggəa=rə ə-w-sajə-w-bo-kə-le  
 woman beneath girl beneath=TO go-E-squander-E-AU-PST-IND  
 "Your son that is not here, he squandered your things on bad women and girls."

(53)  
*Wa obo pum jəle jahi jəle hownoboke*  
 wa obo pum jəle jahi jəle hə-w-nə-bo-kə-le  
 PRO:2SG pig fat with round with hit-3SG.SBJ-3SG.OBJ-AU-PST-IND  
 "You have roasted a big and round pig for him."

(54)  
*Nəko wəwnə kəlu*  
 n-əkə wə-w-nə kəlu  
 3.POSS-father ask-E-3SG.OBJ son  
 'The father spoke to his son:'

(55)  
*Wejəra mbəre mo nəkəjjənde*  
 wejə=ra mbə=re mo nəkə-j-jə-ən-le  
 PRO:2SG=FROM where=TWDS only sit-HAB-HAB-1DL.SBJ-IND  
 "You have always been with me." [lit. we have lived together]

(56)

<i>Tajna</i>	<i>kətə-nalə</i>	<i>waj</i>	<i>mo</i>
taj=na	kətə-nalə	waj	mo
PRO:1SG.POSS=AT	things	PRO:2SG.POSS	only

"My things are yours."

(57)

<i>Tajmaj kaj</i>	<i>wawbakə</i>	<i>əwhərəkera</i>
tajmaj moko-aj	wə-w-bo-a-kə	ə-w-hərə-kə-le=ra
to.party do-3PL.SBJ	ask-E-AU-1SG.SBJ-PST	go-E-die-PST-IND=FROM

*jæ məwwalewboke*  
*jæ m-ə-w-wale-w-bo-kə-le*  
EMPH VENT-go-E-be.alive-E-AU-PST-IND  
"Let them party, since I thought [your brother] died, but he is alive."

(58)

<i>əwnundewbokera</i>	<i>jæ</i>
ə-w-nunde-w-bo-kə-le=ra	jæ
go-E-get.lost-E-AU-PST-IND=FROM	EMPH

*məwjakalawboke*  
*m-ə-w-jakala-w-bo-kə-le*  
VENT-go-E-be.visible-E-AU-PST-IND  
"He was gone, but he was found again."

## Appendix B: Dictionary

This appendix consists of a short dictionary including all the different lexemes and morphology found during the elicitation sessions.

**A - a**

<b>a</b>	word.	<b>-am</b>	1DL.OBJ.
<b>a</b>	take.	<b>-am</b>	1PL.OBJ.
<b>a</b>	beneath.	<b>-am</b>	2PL.OBJ.
<b>a</b>	place.	<b>ame</b>	trick.
<b>-a</b>	1SG.SBJ.	<b>-ame</b>	3DL.OBJ.
<b>-a</b>	1DL.SBJ.FUT.	<b>-ame</b>	3PL.OBJ.
<b>a-fæw</b>	language.	<b>amfæw</b>	fly.
<b>abu</b>	grandparent.	<b>-an</b>	1PL.SBJ.
<b>abu-ako</b>	close family and friends.	<b>-an</b>	3SG.OBJ.
<b>abune</b>	gather.	<b>ana</b>	mother.
<b>afa</b>	uncle; father's younger brother.	<b>anduafi</b>	king.
<b>ahaw</b>	far.	<b>ano</b>	eat.
<b>ahi</b>	not want.	<b>-ar</b>	1SG.OBJ.
<b>ahuba</b>	story.	<b>atæj</b>	father.
<b>aj</b>	PRO:1PL.EXCL.POSS.	<b>ataj</b>	knowledge.
<b>-aj</b>	3PL.SBJ.	<b>atilə</b>	gather.
<b>aje</b>	bird.	<b>atunə</b>	connect.
<b>aka</b>	older brother.	<b>-aw</b>	2PL.SBJ.
<b>ako</b>	friend.	<b>-aw</b>	2SG.OBJ.
<b>akoj</b>	tell a traditional story.	<b>awansi</b>	personal name.
<b>akojkoj</b>	traditional story and dance.	<b>awaw</b>	uncle; mother's brother.
<b>alo</b>	go to.	<b>awə</b>	row.
<b>alon</b>	uncle; father's older brother.		
<b>alu</b>	wind.		

**Æ - æ**

<b>æ</b>	CONJ.	<b>ænimi</b>	aunt.
<b>æko</b>	father.		

**B - b**

<b>bələnda</b>	Dutch.	<b>botol</b>	bottle.
<b>-bo</b>	AU.		

**E - e**

<b>Ebalə Jakali</b>	personal name	<b>enæru</b>	tattoo.
<b>-ej</b>	3DL.SBJ.	<b>-ew</b>	2DL.SBJ.
<b>-ej</b>	2SG.OBJ.	<b>-ew</b>	2SG.SBJ.FUT.
<b>ejæ</b>	PRO:1PL.EXCL.		

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**Ə - ə**


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<b>ə</b>	go.
<b>ə</b>	CONJ.
<b>-ə</b>	2DL.OBJ.
<b>ə- -j</b>	NEG.
<b>əha</b>	CLF:FOOD.
<b>əhə</b>	yes.
<b>əj</b>	inside.
<b>ələ</b>	speak.
<b>əm</b>	2PL.SBJ.FUT.

<b>-əm</b>	2PL.OBJ.
<b>əmfəw</b>	banana.
<b>-ən</b>	1DL.SBJ.
<b>-ən</b>	3SG.SBJ.FUT.
<b>ənggaj</b>	ear.
<b>ərə</b>	walk.
<b>ərəj</b>	see.

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**F - f**


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<b>fa</b>	child.
<b>fæ</b>	fear.
<b>fəw</b>	tongue.
<b>fələ</b>	fall.
<b>fələm</b>	head.
<b>fe</b>	fear.
<b>fəla</b>	arrow.

<b>fələ</b>	(small) snail shell.
<b>fəm</b>	even.
<b>fi</b>	sago.
<b>fo</b>	cross Lake Sentani, specifically from west to east.
<b>foj</b>	good.
<b>folo</b>	cut.

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**H - h**


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<b>ha</b>	take along.
<b>-ha</b>	INS.
<b>habəkaj</b>	tobacco.
<b>haka</b>	run.
<b>hakej</b>	harvest.
<b>hako</b>	decide.
<b>hale</b>	laugh.
<b>halə</b>	grind.
<b>ham-ham</b>	the sound mother makes to children imitating eating, smacking of lips.
<b>hamam</b>	food.
<b>hanə</b>	bake.
<b>hawə</b>	embark.
<b>he</b>	break.
<b>heke</b>	garden.
<b>hə</b>	hit.
<b>həbo</b>	stand or stop (s.th.)
<b>həkəj</b>	potato.

<b>Hələ</b>	Sere Village.
<b>hələm</b>	much.
<b>həna</b>	happy.
<b>həndani</b>	Sentani.
<b>hərə</b>	die.
<b>-hi</b>	CONN.
<b>hidə</b>	clothe.
<b>hijake</b>	bird of paradise.
<b>hikə</b>	frog.
<b>hikə</b>	say.
<b>himi</b>	bad.
<b>hinə</b>	what.
<b>hinə</b>	ask.
<b>hiwne</b>	string up.
<b>-ho</b>	DIR.FRM.
<b>hokolo</b>	young.
<b>hono</b>	lie down.
<b>hote</b>	plate.

**howmó** painting.  
**huæ** evening.  
**hubaj** meet.

**hulu** string.  
**hunə** sniff.  
**Hunu** village name.

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**I - i**


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**i** fire.  
**i** give.  
**ifa** men's pirogue.  
**ijoku** sleep.  
**ikæ** leech.

**ikələ** catch, hold on, arrest.  
**imæ** house.  
**isajə** know.

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**J - j**


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**-j** 2SG.SBJ.  
**j- -jə** HAB.  
**ja** 1 • day.  
 2 • rain.  
**ja** already.  
**jaba** shallow.  
**Jacobus** personal name.  
**jado** fetch.  
**jæ** EMPH.  
**jæle** with.  
**jahələ** stomach.  
**jahi** round, fat.  
**jahimo** next day.

**jaka** relatives.  
**jakala** Open, clear.  
**jakala** be visible.  
**jakobá** island.  
**jane** run off.  
**Janggu** bush person.  
**jaw** road.  
**jawə** Lead or take by the hand.  
**je** give.  
**jo** village.  
**joj** nose.  
**joku** dog.

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**K - k**


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**ka** fish.  
**kabam** big.  
**kænə** call.  
**kaj** announce.  
**kaja** guard.  
**kaji** women's pirogue.  
**kajka** mussel.  
**kala** dry.  
**kale** suffer.  
**kambu** personal name.  
**kani** earth.  
**kani-kəlá** forest.  
**-kə** PST.  
**kəlá** ground.  
**kələw** glimmering.

**Kələw Nikíban**  
**kəli** four.  
**kəlu** son.  
**kəlu-omi** children.  
**kəna** feeling.  
**kəndin** small.  
**kəró-kəró** Dirty, for non-living only.  
**kətə** grow.  
**kətə-nalə** things.  
**ki** saliva.  
**ko** coconut.  
**-ko** PLU.  
**kotæló** messenger.

## L - l

<b>lampu</b>	lamp.	<b>-lə</b>	1SG.OBJ.
<b>-le</b>	IND.		

## M - m

<b>m-</b>	1PL.POSS.	<b>məhini-kəli</b>	nine.
<b>m-</b>	VENT.	<b>məhini-mbaj</b>	six.
<b>ma</b>	PRO:2PL.	<b>məhini-nami</b>	eight.
<b>-ma</b>	1PL.SBJ.FUT.	<b>məhini-pe</b>	seven.
<b>mæ</b>	paddle.	<b>məjæ</b>	PRO:2PL.
<b>mænggə</b>	girl.	<b>məka</b>	why.
<b>maj</b>	PRO:2PL.POSS.	<b>mələ</b>	sago pulp.
<b>maj</b>	disaster.	<b>mələm</b>	meat.
<b>malo</b>	clothing.	<b>məmalu</b>	footwear.
<b>mana</b>	today.	<b>məmam</b>	still.
<b>manggo</b>	cloud.	<b>məndə</b>	all.
<b>mbaj</b>	one.	<b>-mi</b>	3DL.OBJ.
<b>mbə</b>	where.	<b>-mi</b>	3PL.OBJ.
<b>mej</b>	PRO:1PL.INCL.POSS.	<b>mijə</b>	woman.
<b>mejæ</b>	PRO:1PL.INCL.	<b>mo</b>	only.
<b>mə</b>	hand.	<b>mohə</b>	crush.
<b>-mə</b>	1DL.OBJ.	<b>mohi-mohi</b>	dirt.
<b>-mə</b>	1PL.OBJ.	<b>møj</b>	after.
<b>-mə</b>	DIR.TO.	<b>møj-møj</b>	kind.
<b>mə-pe</b>	ten.	<b>moko</b>	mountain.
<b>məhə</b>	how.	<b>moko</b>	do.
<b>məhə-mbaj</b>	five.	<b>molo</b>	husband.
<b>məhə-məhə</b>	how much.	<b>molo</b>	prepare.
<b>məhi</b>	sadness.	<b>moni</b>	hunger.
<b>məhi</b>	different.		

## N - n

<b>n-</b>	3.POSS.	<b>nanə</b>	that which was previously mentioned.
<b>na</b>	PRO:3.	<b>nanəməndə</b>	all.
<b>=na</b>	AT.	<b>nawmó</b>	warm.
<b>nahuluɟ</b>	know exactly.	<b>-nej</b>	3DL.SBJ.FUT.
<b>naj</b>	PRO:3.POSS.	<b>nejæ</b>	PRO:3.
<b>-naj</b>	3PL.SBJ.FUT.	<b>nə</b>	then.
<b>nakə</b>	mother.	<b>-nə</b>	3SG.OBJ
<b>namə</b>	name.	<b>=nə</b>	IN.
<b>nami</b>	three.	<b>nəbələ</b>	that.



nəhi

<b>nəhi</b>	raw.
<b>nəkə</b>	sit.
<b>nəkəndəj</b>	mosquito.
<b>nəmə</b>	all.
<b>nibi</b>	path.
<b>nikíban</b>	spotless.
<b>nimbæ</b>	sago tree trunk.
<b>nimə</b>	breast.

<b>ninæ</b>	already.
<b>ninggəj</b>	sweet potato.
<b>nobe</b>	be near.
<b>nope</b>	approach.
<b>-nu</b>	REFL.
<b>nuku</b>	cold.
<b>nunde</b>	get lost.
<b>nuwə</b>	rest.

**O - o**

<b>o</b>	tree.
<b>o</b>	descend.
<b>obo</b>	pig.
<b>obo-joku</b>	animals.
<b>odjo</b>	chicken.
<b>odo</b>	leg.
<b>Ohəj</b>	Asei.
<b>ohu</b>	sun.

<b>ojbo</b>	ring.
<b>oko</b>	shoulder.
<b>oko</b>	eye.
<b>ondofolo</b>	chief.
<b>onomi</b>	health.
<b>onsá</b>	personal name.

**P - p**

<b>-p</b>	2DL.OBJ.
<b>pækə</b>	DEM.PROX.
<b>paija</b>	search.
<b>paj</b>	hang.up.
<b>paj</b>	just.
<b>pam</b>	NEG.
<b>papeda</b>	papeda.
<b>pe</b>	two.
<b>pe</b>	before.
<b>pe</b>	face.
<b>pejæ</b>	again.
<b>pele</b>	DEM.
<b>penen</b>	again.
<b>pə</b>	return.
<b>pəlaw</b>	betelnut.
<b>pələ</b>	say.
<b>pəna</b>	oldest.

<b>pənə</b>	thought.
<b>po</b>	strike.
<b>po</b>	bone.
<b>poto</b>	hear.
<b>pu</b>	water.
<b>Pu jaba</b>	
<b>pu jaka</b>	
<b>puhæ</b>	pain.
<b>pukə</b>	return.
<b>puko</b>	presence.
<b>pule</b>	chat.
<b>pulo</b>	speak together.
<b>puló</b>	magic.
<b>pulu</b>	hole.
<b>pum</b>	fat.
<b>puma</b>	top.

**R - r**

<b>=ra</b>	FROM.
<b>=re</b>	TWDS.
<b>=rə</b>	TO.

<b>Rusise</b>	Russian.
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## S - s

**sajə** squander.  
**sangka** end.  
**Sere** village name.

**siri** rolled-up betel leaf.

## T - t

**t-** 1SG.POSS.  
**ta** PRO:1SG.  
**tæfetæfetæne** onomatopoeic for laughing mischievously.  
**taj** PRO:1SG.POSS.  
**tajmaj** to party.  
**takej** wait.  
**takə** DEM.MED.  
**talo** year.  
**tami** snake.  
**tan** top.  
**te** laughter.  
**-te** 1SG.SBJ.FUT.

**tejæ** PRO:1SG.  
**tene** early day.  
**tikə** DEM.DIST.  
**to** man.  
**to** name.  
**to-mijæ** person.  
**toboni** bride price.  
**toko** store.  
**tom** as.for.  
**tota** shoot.  
**tow** take.  
**tuka** stone.

## U - u

**u** body.  
**uhe** observe.  
**ukə** tell.

**uuja** no.  
**uwə** say.

## W - w

**w-** 2SG.POSS.  
**-w** 3SG.SBJ.  
**-w** E.  
**wa** PRO:2SG.  
**wa** skin.  
**wabə** trick.  
**wafew** companion.  
**wahe** divide.  
**wahena** tomorrow.  
**waj** PRO:2SG.POSS.  
**waku** drum.

**wale** be alive.  
**wali** life.  
**Walofə** Satan.  
**wanen** like.  
**wejæ** PRO:2SG.  
**wena** yesterday.  
**wə** ask.  
**wəla-wəla** quickly.  
**wi** river.  
**-wo** IMPF.