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INTRODUCTION

Although the linguistic designation 'Papuan' is an old one (Ray 1893; 1927), it has not generally been used in the literature until recently. This was to avoid implying that the languages so designated were genetically related, which they have not yet been shown to be. Instead the cover term 'Non Austronesian' was used. Several years ago, however, when Pacific Linguistics revised its A-series titles, it adopted the term 'Papuan' for one of its series titles. This volume is only the second to appear in the series. Previous studies on aspects of these languages appeared in its A series under the title of *Papers in New Guinea linguistics*.¹

Similar sorts of materials are published in other sources, however, including SIL's *Workpaper* (now *Datapaper*) series, in *Language and linguistics in Melanesia*, in *Irian*, and in other places. More detailed studies of individual languages include that of Lower Grand Valley Dani (Bromley 1981) in the highlands of West Irian and the following languages found in different parts of PNG: Usan (Reesink 1987) and Amele (Roberts 1987) in the Madang Province, Alamlak (Bruce 1984) and Yimas (Foley 1991) in the East Sepik Province, Hua (Haiman 1980) and Tauya (McDonald 1990) in the Eastern Highlands Province, Imoda (Seiler 1985) in the Sundaun Province near the Irian Jaya border and Rotokas (Firchow 1987) in the North Solomons Province. More recently a volume by Ger Reesink (1994) has appeared, following a conference on Papuan linguistics that was held at the University of Leiden in September 1991. It contains articles on Kewa (by Franklin), Hua (by Haiman), Eipo (by Heeschen), Tauya (by McDonald), and Sahu (by Voorhoeve), as well as a topologically oriented one (by Reesink).

This list is significant, but by no means definitive. It builds on the pioneer work of Ray, already mentioned, as well as Capell (1948-49, 1962) and Wurm (1961) in particular. These studies bring attention to the fact that, despite the variety of studies and languages represented as Papuan, there is by no means any clear indication that they are part of a genetic group, even at a most distant level. The practical question still is, 'What is Papuan?'. Foley (1986:3) states that "Papuan languages are not all genetically related" and further claims that there are "upwards of sixty Papuan language families plus a number of Papuan languages, probably a couple of dozen, which are isolates, i.e. not demonstrably related to

¹ On the former, see T. Dutton, ed. (1991); for examples of the latter consult Series A of *Pacific Linguistics*, Papers Nos 1-26, beginning in 1964 and continuing until 1988. Recently papers dealing with New Guinea languages have specified that the collections are Austronesian or (now) Papuan. In addition Series B (Monographs) of *PL* have covered aspects of the grammars and phonologies of a number of languages, including: Telefol, Kewa, Kuman and Pawaian, Selepet, Bena-bena, Fore, Wajokeso, Salt-Yui, Wahgi, Enga, Yagaria, Siroi, Asmat, Kobon, Nembi, Imonda, and Una. Dictionaries and grammars in various Papuan languages have also been published in Series C (Books), including ones that were not described in either Series A or B, such as Awa, Kâte, Lower Grand Valley Dani, Alamlak, Baruya, Oroko, Bukiyip and Koiari. This of course does not include the many Papuan studies in theses and dissertations, special collections, memorial volumes or Festschriften.

any other language". Foley makes no attempt of course to demonstrate on what basis the 60 Papuan language families are classified, but in his later work (Foley 1991) he provides comparative evidence for the establishment of the Lower Sepik Family (comprising Chambri, Karawari, Angoram, Muruk, Kopar and Yimas). Wurm (1982:1), on the other hand, claims that there is a "far-flung group of 507 interrelated Papuan languages...and many of the other known Papuan languages which are not related to it can be grouped into another large group containing 98 languages".

Although the classification of 'Papuan' is somewhat tenuous, Wurm (1982:53-64) has attempted to outline a number of contrastive features between Australian, Papuan (in this case the Trans New-Guinea Phylum (McElhanon & Voorhoeve 1970) and Sepik Ramu Phylum) and Austronesian in Melanesia. There are few general or typical features that are characteristic of most Papuan languages. In attempting to delineate some, Wurm (1982:36) discusses the general problems of classification, including substrata problems, and then gives a number of morphological characteristics that are "frequently met with in Papuan languages", such as dual number in person markers, noun classification commonly by means of classificatory verbs, complexity in concord, special sentence-medial forms, rarity of morphologically marked non-singular forms in nouns, monomorphemically signalled number systems and, in syntax, an SOV word order.

Trying to establish genetic relationships between Papuan languages or groups has therefore only begun, so the study by Clouse in this volume is welcome. Clouse looks at the Lakes Plain languages of Irian Jaya, some 31 of them in perhaps 10 language families, but finds no evidence of a Papuan structure nor any evidence of a Pan-Papuan typology. Clouse is working from word lists, the difficulty of which has been debated over the course of several decades by a number of authors (Bee & Pence 1962; Laycock 1970; McElhanon 1987). Despite the problems Clouse has made a start in the right direction, and we can be grateful for his efforts and for his colleagues who have tirelessly collected data in very remote areas over a number of years.

David Briley also writes about a language of Irian Jaya, Bauzi, and describes switch-reference, case, pronominal and participant reference systems in that language. Briley follows Foley (1986) where Switch Reference arguments are seen as enlarging (Same Actor) or decreasing (Different Actor) the core. He also describes what he calls "discourse ergativity" in Bauzi, such that the participant becomes dominant and the story is then told from the participant's point of view.

There are four cases in Bauzi: Genitive, Absolutive (with an intransitive actor, an undergoer, and an unmarked transitive accusative), Ergative (with a marked transitive actor, speaker, instrument, causer, manner, path and ablative), and Dative (with a location at, allative, addressee, recipient and beneficiary), with all case markers following the last word of a nominal phrase.

Orya is also a language in Irian Jaya, spoken in the Tor Lake Plain Stock, and is most closely related to Berik. Fields introduces the notion of Pivot to describe nominalisation in Orya, where a particular suffix or clitic (-*na*) highlights the core nominal, marks predicate adjectives and performs other functions, such as marking the Undergoer. The Pivot is also used in the honorific system and is influenced by the introduction and prominence of participants as well as the progression of the narrative.

The final language studied is the tone of Baruya, a member of the Angan Family in PNG. This family is considered quite different, given even the diversity of Papuan languages (see P. Healey, ed. 1981). In her contribution Joy Lloyd provides an extensive description of tone and tone sandhi in the language. She demonstrates notably the perturbation effect of low tone, even when it is lost from the final syllable of a root. There are three-tone sequences analysed for two-syllable stems, with HH arising only from the loss of a final L. Tone and intonation are demonstrated in text, with intonation patterns marked for statements, questions, commands, exclamations and vocatives. Lloyd gives underlying forms, so morphophonemic changes can be followed quite easily. This is especially helpful because languages of the family have various complexities (see R. Lloyd 1989 on Baruya grammar, Oates and Oates 1968 on Kapau, and Speece 1988 on the phonology of Angave).

Laycock's article is not, strictly speaking, a linguistic one. It is ethnolinguistic and cross-linguistic, exploring a well-known phenomenon in Papua New Guinea and Melanesia, namely sorcery. The early recordings of missionaries and anthropologists about *sanguma* are taken into account, and to these Laycock adds some speculative comments of his own.

This volume, then, is a further contribution to our knowledge of what we somewhat loosely call 'Papuan languages'. As such it will not only show us more reasons why such languages are not Austronesian, but it will also provide further examples of the broad Papuan typology that Foley and Wurm both sketch.

REFERENCES

- Bee, D. and A. Pence, 1962, Toward standardization of a survey word list for Papua and New Guinea. In J. Dean, ed., *Studies in New Guinea linguistics by members of the Summer Institute of Linguistics (New Guinea Branch)*, 64-75. *Oceania Linguistic Monographs* No.6.
- Bromley, H.M., 1981, *A grammar of Lower Grand Valley Dani*. PL, C-63.
- Bruce, L.P., 1984, *The Alamlak language of Papua New Guinea (East Sepik)*. PL, C-81.
- Capell, A., 1948-49, Distribution of languages in the Central Highlands, New Guinea. *Oceania* 19:104-129; 234-253; 349-377.
- 1962, *A linguistic survey of the South-Western Pacific*. New and revised edition. Technical Paper No.136. Noumea: South Pacific Commission.
- Dutton, T. ed., 1991, *Papers in Papuan linguistics* No.1. PL, A-73.
- Firchow, I.B., 1987, Form and function of Rotokas words. *Language and linguistics in Melanesia* 15:5-111.
- Foley, W.A., 1986, *The Papuan languages of New Guinea*. Cambridge: Cambridge University Press.
- 1991, *The Yimas language of New Guinea*. Stanford: Stanford University Press.
- Haiman, J., 1980, *Hua: a Papuan language of the Eastern Highlands of New Guinea*. Amsterdam: Benjamins.
- Healey, P.M. ed., 1981, *Angan languages are different: four phonologies*. *Language Data, Asian-Pacific Series*, 12. Huntington Beach, CA: Summer Institute of Linguistics.
- Laycock, D.C., 1970, Eliciting basic vocabulary in New Guinea. In S.A. Wurm and D.C. Laycock, eds, *Pacific linguistic studies in honour of Arthur Capell*, 1127-1176. PL, C-13.
- Lloyd, R., 1989, *Bound and minor words in Baruya*. *Data Papers on Papua New Guinea Languages* 35. Ukarumpa: Summer Institute of Linguistics.
- MacDonald, L., 1990, *A grammar of Tauya*. Berlin: Mouton de Gruyter.

- McElhanon, K.A.**, 1987, Basic vocabulary as a tool for classifying Papuan languages. In D.C. Laycock and W. Winter, eds, *A world of language: papers presented to Professor S.A. Wurm on his 65th birthday*, 421-436. *PL*, C-100.
- McElhanon, K.A. and C.L. Voorhoeve**, 1970, *The Trans-New Guinea Phylum: explorations in deep-level genetic relationships*. *PL*, B-16.
- Oates, W. and L. Oates**, 1968, *Kapau pedagogical grammar*. *PL*, C-10.
- Ray, S.**, 1893, The languages of British New Guinea. *Transactions of the Ninth International Congress of Orientalists, London, 1892*, 754-770.
- 1927, The Papuan languages. In *Festschrift Meinholf*, 377-392. Hamburg.
- Reesink, G.P.**, 1987, *Structures and their functions in Usan: a Papuan language of Papua New Guinea*. Amsterdam: Benjamins.
- 1994, *Topics in descriptive Papuan linguistics. Semaian 10*. Rijksuniversiteit te Leiden: Vakgroep Talen en Culturen van Zuidoost-Azië en Oceanië.
- Roberts, J.R.**, 1987, *Amele*. London: Croom Helm.
- Seiler, W.**, 1985, *Imonda, a Papuan language*. *PL*, B-93.
- Speece, R.F.**, 1988, Phonological processes affecting segments in Angave. *Language and Linguistics in Melanesia* 17:1-139.
- Wurm, S.A.**, 1961, The linguistic situation in the Highlands Districts of Papua and New Guinea. *Australian Territories* 1/2:14-23.
- 1982, *Papuan languages of Oceania*. *Ars Linguistica* 7. Tübingen: Gunter Narr Verlag.

KARL J. FRANKLIN

FOUR GRAMMATICAL MARKING SYSTEMS IN BAUZI

DAVID BRILEY

1. INTRODUCTION

This paper is multifaceted. My initial research was focused on the problems I encountered in using the two sets of subject pronouns. The solutions led to further investigation of other aspects of the language, and to the consideration of Bauzi as an ergative language. The proof of ergativity was not complete, however, without a statement on the switch-reference marking and participant-tracking schemas. As all of these were working together, the discussion of any one part of the grammar would not have been complete without an understanding of the other three.

As a result, this paper is a composite of the Bauzi switch-reference marking, case, pronominal, and participant reference systems.

Bauzi has been classified by C.L. Voorhoeve (1975) as a non-Austronesian language of the East Geelvink Bay Stock. It is spoken by an estimated 1,500 people living in small villages located in the Mamberamo River region (Kecamatan Mamberamo Tengah, Kabupaten Jayapura) of northern Irian Jaya. By typology, it is an SOV language, with the following word order:

(SUBJECT) (TIME) (INDIRECT OBJECT) (LOCATION) (OBJECT) VERB

The data upon which the present study is based were collected over quite a number of years, mostly from speakers living in the villages of Noiadi, Solom and Danau Bira. The research was, in the main, carried out under the aegis of a joint agreement between the Summer Institute of Linguistics (SIL) and Cenderawasih University of Irian Jaya. More recently, the author has been sponsored by SIL and the Department of Social Welfare of the Republic of Indonesia.

Special acknowledgement goes to Dr Alan Healey and Dr Phyllis Healey for their advice and assistance in the writing of this paper. Additional comments were given by Duane Clouse and Margaret Hartzler. All of these are co-members, with me, of the Summer Institute of Linguistics.

2. SWITCH-REFERENCE

Switch-reference (S/R), which is characteristic of many Papuan languages, has been described by Jacobsen (1967:240): "Switch-reference consists simply in the fact that a switch in subject or agent is obligatorily indicated in certain situations by a morpheme, usually suffixed, which may or may not carry other meanings as well."

2.1 VERB PHRASES AND VERB MORPHOLOGY

Generally speaking, the verb phrase in Bauzi is a long structure of up to four parts, all of which are separate words or particles. The last part itself is a morphological structure forming one, two or three words. This part will be referred to as the verb word cluster. In Bauzi, the verb phrase and the verb word cluster may take either of two forms – final and non-final, that is those that occur in the sentence-final clause and those that occur in non-final clauses. The most important distinction between these is that the non-final verbs carry either a switch-reference marker or a connector whereas the final verbs do not have either.

The Bauzi sentence can be defined as:

a construction consisting of one or more clauses, only the last of which contains a final verb, that is one lacking both a switch-reference marker and a connector.

What follows are two tree diagrams showing the structural differences between these final and non-final forms.

2.1.1 NON-FINAL VERB PHRASES

Figure 1 shows the structure of a non-final verb phrase (NF-VP):

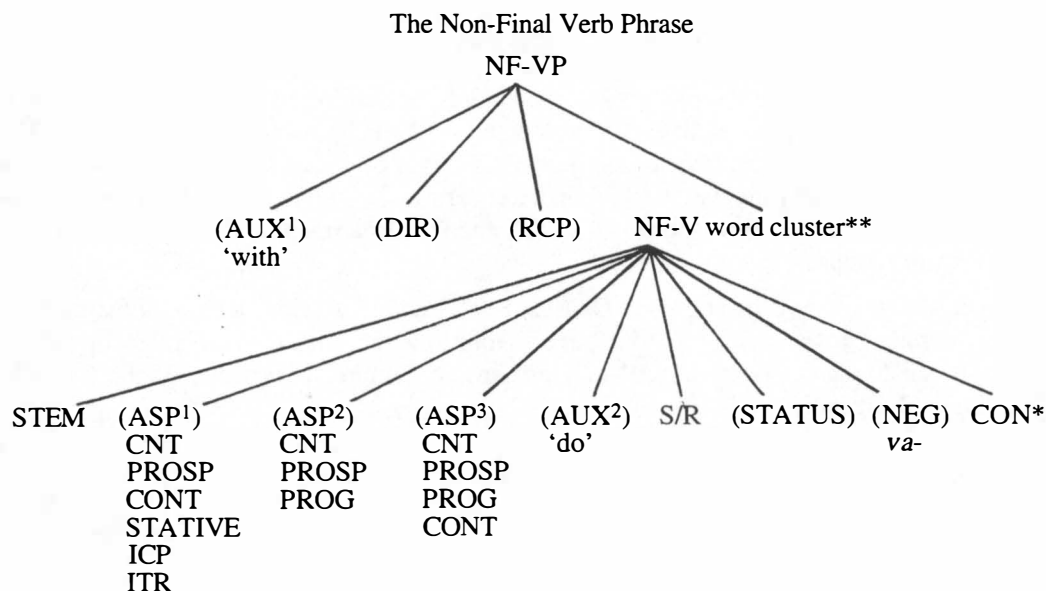


FIGURE 1

(See Appendix E for explanation of abbreviations.)

- * Bauzi has interclausal, sentence and paragraph connectors. I have labelled them all CON. The connector slot signified by CON in the tree diagram above refers to these interclausal connectors: *-mu* 'because'; *-zobe* 'afterwards'; *-meam* 'if/since'; *-di* 'while/at the time of' *-labe* 'because/in the circumstance of'. These connectors always show up as enclitics on non-final-verb word clusters. Paragraph and sentence connectors show up sentence-initially.
- ** If either auxiliary word (AUX²) or negative word (NEG) is present, or both are present, they each begin a new word. If neither is present, then all of the other components are suffixed to the verb in order, thus forming a single word.

Figure 1 is to be read as follows: a Non-Final Verb Phrase (NF-VP) is realised in its fullest form as an Auxiliary word ('with' (AUX¹), a Directional word (DIR), a reciprocal particle (RCP), and a Non-Final Verb (NF-V) word cluster. In turn, the Non-Final Verb (NF-V) word cluster is realised in its fullest form as a verb stem followed consecutively by three Aspect suffixes (ASP¹) (ASP²) (ASP³), an auxiliary stem 'do' (AUX²), a switch-reference suffix (S/R), a status suffix (STATUS), a negative stem (NEG), and a connector suffix (CON). The switch-reference suffix (S/R) and the connector suffix (CON) are mutually exclusive.

There now follow four examples showing various orderings of the non-final verb phrase.

- (1) *Gi nasi fa vou vim le / esu / fao-de.*
 ATN ICP ITR with DIR.upstream go.SA put.SA wait-IMP
 Now just go ahead and **return with (this) upstream**, put it there and wait.
- (2) *Labi le vamea-du-me mode-ha / i-m dam totbaho-ta*
 CON go.SA tell-CONT-SA do-DA 1PL-ABS people some-only
ahebu ule-t.
 all agree-DECL
 And so **when (Kes)** came and **told** that, most of us were in agreement.

The meaning of the auxiliary (AUX) usage of *mode* 'do' (which also can function as an ordinary verb 'do') in examples (2) above and (3) and (4) below seems to indicate a punctiliar or momentary situation.

- (3) *Tuha-t fa Noiadi-a li / bei-le-so-me*
 Tuha-ERG ITR Noiadi-DAT come.SA fight-ICP-CNT-SA
mode-ha vaba-mu / i-ho fa sià-du-me /
 do-DA NEG-CON 1PL-ERG ITR catch.hold.of-CONT-SA
fa vabede-du-me / esu.
 ITR console-CONT-SA leave
 Tuha returned to Noiadi, **but when (he) attempted to fight** we grabbed hold of him and consoled him instead.
- (4) *Neo Kes-ti fa neo Vadu-ti neo ot belu-i ot*
 next Kes-and ITR next Vadu-and next RCP hit-ITR RCP

belu-ia-du-me mode-ha Vadu neo ab beo-h-am.
fight-ITR-CONT-SA do-DA Vadu next INDIC hit-REAL-INDIC
Next Kes and Vadu **were fighting each other when** (Kes) next struck Vadu
down.

2.1.2 FINAL VERB PHRASES

Figure 2 demonstrates the structure of the final verb phrase:

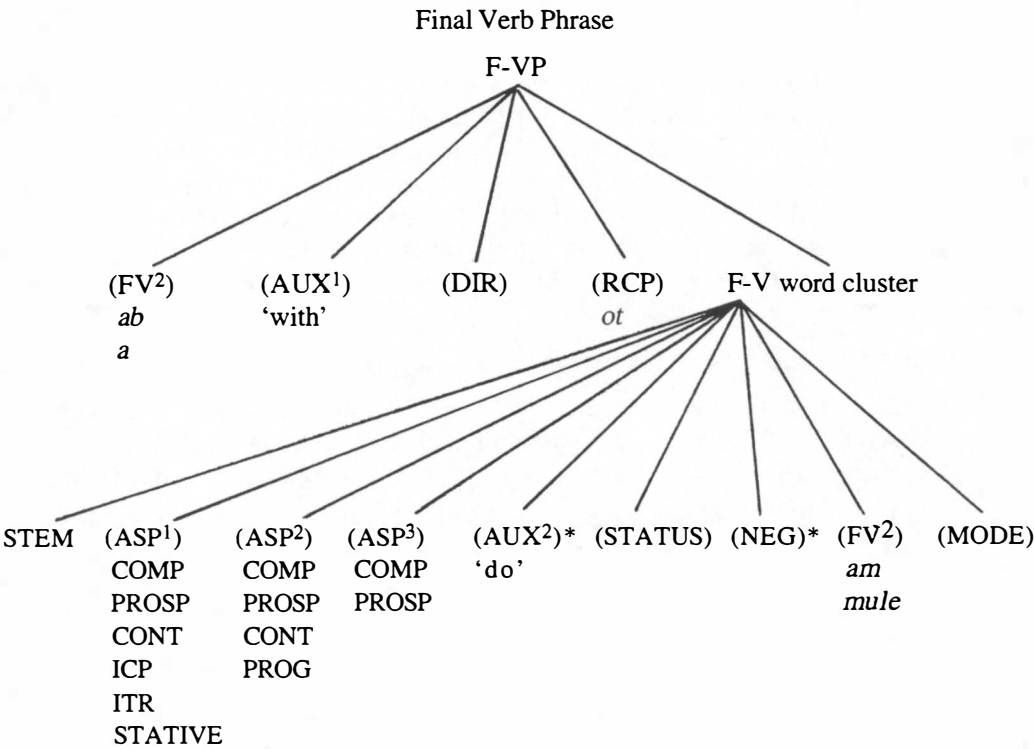


FIGURE 2

* If either auxiliary word (AUX²) or negative word (NEG) is present, or both are present, they each begin a new word. If neither is present, then all of the other components are suffixed to the verb in order, thus forming a single word.

Figure 2 is to be read as follows: a Final Verb Phrase (F-VP) is realised in its fullest form as a final pre-verb particle (FV¹), the Auxiliary word 'with' (AUX¹), a Directional word (DIR), a Reciprocal particle (RCP), and a Final Verb (F-V) word cluster. In turn, the Final Verb (F-V) word cluster is realised in its fullest form as a verb stem (STEM) followed consecutively by three aspect suffixes (ASP¹) (ASP²) (ASP³), an auxiliary stem 'do' (AUX²), a status suffix (STATUS), a negative stem (NEG), a final verb enclitic (FV²) and a

mode particle or enclitic (MODE) which is more relevant to the sentence as a whole than to the particular verb it follows.

Examples showing various orderings of the final verb phrase now follow:

- (5) *Gi num-a ai-du-me / ti-ta fe-me / fa*
 ATN house-DAT stay-CONT-SA sago-only pound-SA ITR
ab vou le-h-am.
 INDIC with come-REAL-INDIC
 (He) just stayed in the house and only pounded the sago and then **returned with it.**
- (6) *Vahada dam bake faki / nohubake ab*
 young.bro people toward angry.SA jungle.DAT INDIC
i-dete-da-m-am.
 sleep-ITR-CONT-IRR-INDIC
 Younger brother is angry at the people and therefore **has begun sleeping about here and there** in the jungle.
- (7) *Dam kahea ihe gi betea-t nas ab vou vim*
 people poles canoe ATN slowly-ERG ICP INDIC with DIR
le-da-m-am bak.
 come-CONT-IRR-INDIC DECL
 The people **have just now started bringing** the canoe load of poles upstream.

2.1.3 DISTINCTIONS BETWEEN NON-FINAL AND FINAL VERB PHRASES

- (i) The two differences between non-final verb phrases (NF-VP) and final verb phrases (F-VP):
- the final verb phrase contains a final pre-verb particle (FV¹: *ab*) which the non-final verb phrase doesn't have, and
 - in their verb word clusters, the non-final verb (NF-V) and final verb (F-V), have different internal structures.
- (ii) The differences between the non-final verb and the final verb:
- the non-final verb contains obligatory switch-reference suffix (S/R) which does not occur in the final verb, and
 - the final verb contains a final verb post-verb enclitic (FV²: *-am*) which does not occur in the non-final verb. In addition the non-final verb is followed by a connective suffix (CON) which relates two clauses, and the final verb is followed by a mode suffix or particle (MODE) which relates to the whole sentence.
- (iii) If either auxiliary word (AUX²) or negative word (NEG) is present, or both, they each begin a new word which would then comprise the verb word clusters.

2.1.4 CO-OCCURRENCE RESTRICTIONS

In addition to the distinctions between final and non-final verb phrases described above, there are several co-occurrence restrictions involving the various parts of the verb phrase and verb word cluster.

- (i) The final verb pre-verb particle *ab* (FV¹) and the final verb enclitic *-am* (FV²) always occur as matched pairs.

The pair *ab...-am* is indicative, and the only modes that may occur with it are the declarative *bak* and the emphatic *-tame ~ -am-tame*. This declarative pair is very characteristic of narrative texts and is not found in hortatory, expository, procedural, or epistolary genre. Examples (8) and (9) illustrate the final verb bracketing pair *ab...-am* occurring with the declarative and emphatic modes respectively.

- (8) *I-m amu ab be-be neà-di*
1PL-ABS earlier INDIC fight-SA good-STATIVE.SA

vaito-h-am bak.
cut.off-REAL-INDIC DECL
Earlier we fought and finished.

- (9) *Neà-de-ha. // [I-himo beb-na] ab*
good-STATIVE-COMP 1PL-EMC fight-PTS INDIC

neà-de-h-am tame.
good-STATIVE-REAL-INDIC EMP
It is done. [As for (this fight) which was only between ourselves], (it) is
definitely finished.

- (ii) When the reciprocal particle *ot* 'each other' precedes a final verb stem which is bracketed with the *ab...-am* pair, it can neither co-occur with the auxiliary word *vou* 'with' nor with a directional word, as example (10) below illustrates.

- (10) *Labi num bak tom-ba lab-a ab ot belu-i*
CON house ground up-CL.flat there-DAT INDIC RCP fight-ITR

ot belu-ia-da-m-am.
RCP fight-ITR-CONT-IRR-INDIC
So (he and Ofakete) **began to fight each other** there in the yard.

- (iii) Example (11) below shows another type of bracketing that occurs with the final verb when the prohibitive modality is used. It can be compared with (12). The prohibitive mode pair *a....-mule* cannot co-occur with the declarative pair *ab...-am*.

- (11) *A bohude-mule.*
PROH fight-PROH
Don't fight.

- (12) *Dam ab bohude-da-m-am.*
people INDIC fight-CONT-IRR-INDIC
The people **(started) fighting**.

(iv) A negative (NEG) word cannot co-occur with the indicative pair *ab...-am*.

- (13) *I-m adat ba fa Danao olu-m va-bak.*
 1PL-GEN son later ITR Danao send-IRR NEG-DECL
 (We) will **not** send our son back to Danao.

(v) It should be noted that the final verb (FV¹) pre-verb particle *ab* can be followed by a non-final verb commencing a serial verb construction terminated by a final verb. Thus *ab...-am* bracket a whole serial verb construction that is sentence final. These serial verb constructions might be called “expectancy chains”. Note the following examples:

- (14) *...ab i-zi diha-h-am.*
 INDIC sleep-SA daylight-REAL-INDIC
 ...(they) **slept** and it became the next day.

- (15) *...ab figoaito-u sete-h-am.*
 INDIC scatter-SA lost-REAL-INDIC
 ... (they) **scattered** and became lost.

- (16) *...ab li aii-h-am.*
 INDIC come-SA hear-REAL-INDIC
 ...(they) **came** and heard.

(vi) In (17) when the emphatic mode is used with the time word *ba* ‘later’, the result is a meaning close to a future tense.

- (17) *Kali ba nohubake i-dete-da-tame.*
 cousin later jungle.DAT sleep-ITR-CONT-EMP
 Cousin **will definitely later** sleep about here and there in the jungle.

I will now describe how the switch-reference phenomenon works in Bauzi.

2.2 THE GENERAL RULE

Non-final verb affixes in Bauzi show whether the following verb will have the same actor (SA) or a different actor (DA). Usually the terms ‘same subject’ and ‘different subject’ are used to refer to this phenomenon. However in this paper, the terms ‘same actor’ and ‘different actor’ have been used; there is no meaning difference (see Foley 1986:183).

Many of these switch-reference markers have portmanteau functions, and their occurrences are confined to those occasions in which their total meaning has application.

2.2.1 SAME ACTOR (SA) SUFFIXES

2.2.1.1 SAME ACTOR SUFFIX *-me*

The suffix *-me* is the most frequently used switch-reference marker. Its use indicates that there will be the same actor for the succeeding verb and that the verbs are ordered sequentially. Its occurrence, however, is limited to non-serialised verbs which indicate either process or plurality. Rules governing its use are as follows:

- Rule (1): Process class verbs require the *-me* morpheme in their non-final forms to indicate same actor. (Examples (18) and (19) below refer.)

- Rule (2): Verbs that have stem variations for singular and plural require the *-me* suffix to indicate same actor when their plural forms are used. The same actor suffix *-me* cannot occur with stems of verbs which indicate punctiliar or momentary situations. When duration is in focus as well the continuative aspect suffix *-da* is added before the *-me* suffix. This rule is applied before Rule (4) below. (Examples (20) and (21) below refer.)
- Rule (3): Serial-verb constructions which are core junctures require the *-me* suffix to indicate same actor. (Examples (22) and (23) below refer.)
- Rule (4): When the continuative aspect morpheme *-da* is added to the non-final verb stem, the *-me* is required if same actor is to be indicated. (Examples (24) and (25) below refer.)

The examples listed below illustrate these rules.

(i) Rule (1): Process class verbs

Process class verbs by nature involve a repeated action to complete, and *usually* do not have the continuative aspect suffixed to their roots.

- (18) *E-m dek nà-t ne-me lo-ho-na.*
 1PL-GEN string.bag sister-ERG weave-SA give-REAL-PTS
 My string bag is the one that **sister** wove and gave (to me).

In example (18) above, the verb 'weave' is a process class verb. The Undergoer is fronted and 'sister', who has the ergative case suffix, is the Actor of both 'weave' and 'give'.

The narrator in example (19a) below is telling what they do with the sago after it is processed. There is no Actor change throughout. The Actor was named in the opening sentence of the discourse: "This is how we Bauzis process sago". The verb *fe* 'pound (sago)' is another process verb and is only suffixed with *-me*. The verb *vahe* 'stack up' is the plural form of the verb *esu* 'put' and is suffixed with *-du-me*. Here the emphasis is on the amount of sago that was processed and brought home, not on the process per se, whereas in (19b) the emphasis is on the length of time that it took to process the sago. However both require the use of the *-me* same actor suffix.

- (19)a. *Labi ti fe-me / vahe-du-me / afoe-zobe*
 CON sago pound-SA stack.up.PL-CONT-SA finish-CON.SA
ti dek voho-du-me / ab la-h-am.
 sago string.bag carry.on.back-CONT.PL-SA INDIC go-REAL-INDIC
 So (**we**) pound (Implied: one sago tree) the sago and then (**we**) stack up the mounds of sago and then afterwards (**we**) carry the string bags of sago on our backs and go (to the house).
- b. *Nà ti fe-à-du-me ne-à-de.*
 sister sago pound-ITR-CONT-SA good-STATIVE
Sister pounded the sago (repeatedly over a number of days) and (**she**) finished.

(ii) Rule (2): Stem variations for singular and plural

- (20) *Dihasi lo-a le / fikboa-du-me / vou li /*
 next.day vine-DAT go.SA cut.down.PL-CONT-SA with come.SA

neo digehi gau lo lam gili-me...
 next bow outside.string vine that shave-SA
 On the next day (we) go for vine, cut down (plural Undergoer) some, bring it
 back, and then (we) shave down vine for the string on the outside of the bow...

Example (20) above comes from a procedural text describing how the Bauzis make different kinds of bows. The Actor specified at the beginning of the text as 'we Bauzis' is the Same Actor throughout the entire discourse with zero anaphora. The same actor suffix *-me* cannot occur with singular stems of verbs which indicate punctiliar or momentary situations. The verb *fikboa* 'cut down (more than one item)' is the plural form of the verb *faito* 'cut down (one item)' and therefore requires the same actor suffix *-me*. Plural forms of verb stems sometimes take the continuative aspect suffix *-da* which emphasises the repetitive action performed on the Undergoer. The continuative aspect cannot occur suffixed to singular stems such as *faito*. If in example (20) above the form of the process verb *gili* 'shave' was *gili-du-me*, the continuative suffix *-du* would focus on the fact that there were a number of vines that were shaved down to make bow strings, as well as showing that the action was continuous or repetitive.

In example (21) below, the plural form *vihila* 'pull away' requires the *-me* suffix. The form **vihito-du-me* is ungrammatical.

- (21)a. *Ihe koenà vihito-i / bio-u / ihe meida fa ve /*
 canoe small pull.away-SA cross.over-SA canoe another ITR take-SA
vou bio.
 AUX cross.over
 (I) launched a small canoe, (I) crossed over (the lake), and (I) took another canoe in its place, and (I) crossed back over with it.
- b. *Seteli omoke omoke-da-meilahit / dam dua-da aa-me /*
 flashlight blink blink-CONT-while.DA people many-PTS see-SA
ihe vihila-me / ab emoe-h-am.
 canoe pull.away.PL-SA INDIC run-REAL-INDIC
 When (I) signalled with (my) flashlight, **many people** saw it and, **(they)** launched (their) canoes, and **(they)** came fast.

(iii) Rule (3): Serial-verb constructions which are core junctures

In example (22a) below, the serialisation of *do* 'shoot' and *bite* 'fall down' does not require the *-me* same actor suffix as it is formed by a 'nuclear juncture'. Following Foley and Van Valin (1984:190), the nuclear juncture in (22a) "requires a single core for the composite nucleus". That is, the complex nucleus *dou bite* has a single set of Actor and Undergoer arguments: A=cousin, U=pig. In examples (22b) and (22c) where the two verbs are formed by a 'core juncture', the *-me* suffix is employed. In the core juncture of (22b), the core arguments are "core arguments only of their specific nuclei" (1984:190). Even though the Actors of the two nuclei are not coreferential, the same actor suffix *-me* is used. Special rules for the switch-reference marking schema involving expectancy chains are discussed under §2.3.2. There is no meaning difference between (22b) and (22c).

- (22)a. *Kali doho do-u bite.*
 cousin pig shoot-SA fall.down
 Cousin shot (Implied: one arrow) the pig killing (it).

- b. *Kali doho do-me / bite.*
 cousin pig shoot-SA fall.down
Cousin kept shooting (Implied: more than one arrow) the pig and (**the pig** finally) fell down.
- c. *Kali doho do-du-me / bite.*
 cousin pig shoot-CONT-SA fall.down
Cousin kept shooting (Implied: more than one arrow) the pig and (**the pig** finally) fell down.

Compare the following:

- (23)a. *Dubu bites-u i-da.*
 old.bro lie.down.SG-SA sleep-CONT
Older brother is lying down and (**he**) is sleeping.
- b. *Dubu bitesu-me / usa.*
 old.brother lie.down.SG-SA get.up
Older brother was lying down and then (**he**) got up.
- c. *Dam beila-me / i-da-ohit / lahi kohu la.*
 people lie.down.PL-SA sleep-CONT-while.DA women breadfruit go
 While the **men** were lying down and (**they**) were sleeping, the women went for breadfruit.

Because the verb form *bitesu* 'lie down' in example (23a) above is singular and is in combination with the verb *i* 'sleep' in a nuclear-juncture-formed serial verb construction, it does not require the same actor suffix *-me*. (The fusion of the same actor suffix on the last vowel of the singular form *bitesu* 'lie down' will be discussed below under §2.2.1.2). However in (23b) it is required because the two verbs in the serial verb construction are a core juncture. In (23c) the plural form *beila* 'lie down' also requires the suffix *-me* to indicate same actor. Even though only the verb *i* 'to sleep' has the continuative aspect *-da* suffixed, because these two verbs are a close-knit pair, the continuative aspect applies to the verb 'lie down' as well. In another circumstance, a well-formed sentence could contain *beila-du-me* '(many people) were lying down' in combination with *i-da* 'sleeping' and would have no difference in meaning from (23c).

(iv) Rule (4): Continuative aspect *-da* added

In example (24) below, the morpheme *-me* is suffixed to the continuative aspect suffix *-da* which occurs with both 'seize' and 'console'. This suffix sometimes acts as a portmanteau morpheme showing plurality as well, but not in this example. A morphological change takes place to *-da* when *-me* is added; it raises the *a* in *-da* to *u*. The *-me* indicates that the Actor throughout is *iho* 'we'.

- (24) *I-ho fa si-à-du-me / fa vabede-du-me / esu.*
 1PL-ERG ITR seize-ITR-CONT-SA ITR console-CONT-SA leave
We were continually holding onto him and (**we**) were consoling him and then (**we**) left (him).

In example (25) below, the emphasis is on the plurality of the number of string bags woven and the duration of the action. In this case the *-da* suffix is added, operating as a

portmanteau morpheme indicating both the continuative aspect and plurality of the Undergoer. (See Appendix A for other verbs of this type.)

- (25) *Dek ahebu e-hemo ne-à-du-me neà-de.*
 string.bag all 1SG-EMC weave-ITR-CONT-SA good-STATIVE
 As for all the string bags – I myself wove (them) and (I) finished (them).

2.2.1.2 SAME ACTOR SUFFIX -i

Besides the most frequently occurring *-me* suffix to predict same actor for the succeeding clause and to indicate the sequential ordering of events, there is another suffix, *-i*, that behaves in a similar way. That is, besides predicting that the Actor of the succeeding verb will be the same as the Actor of the verb to which it is suffixed, the *-i* suffix also indicates that the actions of the verbs are ordered chronologically in time.

Three basic rules summarise when the same actor suffix *-i* is used:

- Rule (5): For non-process verbs, that is for verbs that indicate a punctiliar or momentary situation, where the Undergoer of a transitive verb is singular or an Actor of an intransitive verb is singular, the suffix *-i* is added to the singular verb stem to signal same subject. This rule is applied before Rule (6) below. (Examples (26) and (27) below refer.)
- Rule (6): Serial-verb constructions which are nuclear junctures are inflected with the same actor suffix *-i*. (Examples (28), (29) and (30) below refer.)
- Rule (7): For verbs that have invariant numberless stems, the *-i* suffix is employed to indicate same subject. (Example (30) below refer.)

When the *-i* suffix is added to non-final verbs, the final vowel on the verb stem or the final vowel on the inceptive aspect suffix *-le* and the stative aspect suffix *-de* prior to the *-i* will undergo various changes depending on what that last vowel is. The following general rule accounts for some of the various changes that take place when the non-final verbs are inflected with *-i*:

- Rule (8): When the *-i* is added, fusion takes place between the suffix and the final vowel of the immediately preceding stem or stem plus suffix. The final vowel is raised one step as follows:

$$\begin{array}{l} i + i > i \\ e + i > i \\ a + i > e \\ o + i > u \\ u + i > u \end{array}$$

In addition, if the last consonant before the suffix *-i* is *t*, it changes to the equivalent fricative as follows:

$$t + i > si$$

The examples listed below illustrate these rules.

(i) Rule (5): Non-process class verbs

Example (26) below shows the fusion of the final *u* in some verb stems with the suffix *-i* becoming *u*. The same actor suffix *-u* added to *futo* 'go out' will be discussed under §2.2.1.3 below.

- (26) ...*gi fo totbaho-ta vuusu / futo-u mode-ha...*
 ATN arrow some-only hold.onto.SG.SA go.out-SA do-DA
 ...**(he)** just held onto only some of the arrows and when **(he)** came out...

The verb *laite* 'climb up (a hill)' in example (27) below ends with the syllable *te*. When the same actor suffix *-i* is added, the *te* changes to *si*. Rule (5) is applied first.

- (27) *Noi-bus tom lais-i / ti o.*
 Noi-peninsula up climb.SG.SA sago fell.SG
(He) climbed up the Noi peninsula and **(he)** felled a sago tree.

(ii) Rule (6): Serial-verb constructions which are nuclear junctures

The final *i* in the singular verb stem *nohisi* 'to charge' in example (28a) below fuses with the suffix *-i* to become *i*. Example (28b) is contrastive.

- (28)a. *Ut viso-i / nohisi mode-ha...*
 club pick.up.SG.SA charge.SG.SA do-DA
(He) picked up his club, and **(he)** charged after (him) when...
- b. *Ut visomoa-du-me / nohi-ddu-me mode-ha...*
 club pick.up.PL-CONT-SA charge.PL-CONT-SA do-DA
(They) were picking up their clubs, and **(they)** were charging after (him) when...

In example (28a) above, the three verbs *viso* 'pick up', *nohisi* 'charge after' and *mode* 'do' are involved in a serial verb construction formed by a nuclear juncture. Although that is the case, Rule (5) takes precedence over Rule (6). Whereas in (28a) the action of one person taking up his club and charging after someone indicates a punctiliar or momentary situation, the action represented in (28b) of many people picking up their clubs and charging after someone is seen as a process or repetitive action.

Another example follows:

- (29)a. *Dubu bisu i-da.*
 old.brother lie.down.SG.SA sleep-CONT
Older brother was lying down sleeping.
- b. *Dubu bisu-me / usa.*
 old.brother lie.down.SG.SA get.up
Older brother lay down and then **(he)** got up.

Example (29a) above shows the fusion of the final *u* in *bisu* 'lie down' with the suffix *-i* becoming *u*. In (29a) the serial verb construction is formed from a nuclear juncture. Therefore Rule (7) applies. There is a contrast between (29a) and (29b). The verbs *bisu* 'lie down' and *usa* 'get up' in (29b) are not serialised. Instead the action represented by the verb 'lie down' in (29b) is seen as durative or as a process that takes place before the 'getting up'.

In example (30) below, the serial verb construction *lu olu* 'give-send' shows the *o* in the verb *lo* 'give' changing to *u* when the suffix *-i* is added.

- (30) *Ae da lab-a lu olu.*
bushknife man there-DAT give.SA send
(He) gave the bushknife to the man there and then (he) sent (him) away.

(iii) Rule (7): Verbs with invariant numberless stems

In example (31) below *la* 'go' fuses with suffix *-i* to become *le* and the inceptive suffix *-le* fuses with *-i* to become *-li*.

- (31) *I-m dam totbaho vabi-li / gi bak iub-a*
1PL-ABS people some not.know-ICP.SA ATN place there-DAT
le / na mee-da.
go.SA thing do.PL-CONT
Some of us not knowing (the situation) had just gone over there and (we) were doing things.

In example (31) above the verb *vabi* 'not know' is an invariant numberless stem. In other words there are no stem variations for singular or plural of Actor or Undergoer. Since it is also a stative verb and not a process verb it requires the *-i* suffix.

2.2.1.3 SAME ACTOR ALLOMORPHS *-u* AND *-i*

The two verb classes whose singular stems end with final *o* do not change when the same actor suffix *-u* or *-i* is added. When these two sets function as non-final verbs and they are suffixed to indicate same actor, an *-i* is added to one set and an *-u* is added to the other. In relation to the same subject marking schema they are called 'the *i* class' and 'the *u* class' respectively. These are exemplified in the following examples. (For other verbs in these two classes see Appendix A.)

- (32) *Vaomei-t vim bio-u / fem Aseda-bada*
Vaomei-ERG DIR.upstream cross.over-SA banana Aseda-PTS
ab fike-h-am.
INDIC cut.down-REAL-INDIC
Vaomei crossed over upstream and (he) cut down Aseda's banana tree.
- (33) *Bà botehà-bu viso-i / ab vi emoe-h-am.*
axe butt.end-CL.big pick.up.SG-S INDIC DIR run-REAL-INDIC
(He) picked up the axe and (he) ran after (him).
- (34) *...lo vaito-i / bohe omahe.*
vin cut.down.SG-SA fish string
...(he) cut some vine and (he) strung the fish.
- (35) *As la-m voo-u sete.*
pot there-ABS throw.away-SA become.lost
(He) threw that pot away and (it) became lost.

- (36) *Tom lavo-i / doho ab do-h-am.*
 up skirt.around.in.back-SA pig INDIC shoot-REAL-INDIC
 (He) (went) up and skirted around behind and then (he) shot the pig.

2.2.1.4 SAME ACTOR ALLOMORPH -zi

Another verb class which has just a few members is suffixed with -zi to indicate same actor. Again the verb stem remains unchanged.

- (37) *Ti medà-du-me / vahe-du-me /*
 sago make.sago.pudding-CONT.PL-SA stack.up.PL-CONT-SA
esmo-zi / dam gago-me / ab vou la-da-lo
 leave.behind-SA people say-SA INDIC with go-CONT.PL-PROSP
mode-m-am.
 do-IRR-INDIC
 (They) made sago pudding, stacked it up, left it behind and summoned people
 (to come) and (the people came and) began taking (it) away.
- (38) *I-zi dihasi aa-ha neo Tovao-da*
 sleep-SA become.next.day.SA see-DA next Tovao-CL.people
amti le.
 suddenly come
 (We) slept on the next day, when (we) looked, the Tovao people suddenly
 appeared on the scene.

(See Appendix A for further examples of verbs that require the -i suffix.)

2.2.2 DIFFERENT ACTOR SUFFIX

Bauzi has only one different actor suffix, the morpheme -ha. Its distinctives will be discussed first, and then how it functions with other suffixes.

2.2.2.1 DIFFERENT ACTOR SUFFIX -ha

An interesting feature of -ha is that it always occurs with rising intonation and serves as a subordinate clause boundary for the sentence. You could almost put a comma in the English translation.

- (39) *Labi Vadu-hat ozo-ha / a-m nà beo-he-mu...*
 CON Vadu-ERG think-DA 3SG-GEN sister strike-DA-CON.because
 When Vadu considered (the situation), because (Aseda) struck his sister...

Previously in this story Aseda was fighting with Ofakete who is the sister of Vadu. He was the Actor of the preceding actions. Then Vadu is the explicit named Actor of the verb 'to think'. There is no explicit Actor named for the verb 'to strike'. But the hearer knows that Vadu is not the Actor of 'strike' because of the -ha suffix attached to the verb 'to think' preceding the noun phrase functioning as Undergoer. The -he different actor suffix is

discussed below under §2.2.2.2.1. Here it will suffice to say that the *a* in *-ha* has been raised to *e* as a result of *-mu* having been suffixed.

- (40) *Labi ut viso-i / nohi-si mode-ha / dam-at*
 CON club pick.up-SA charge.after-SA do-DA people-ERG
ab si-h-am.
 INDIC seize-REAL-INDIC
 And so (**Buto**) picked up (his) club and when (**he**) went charging after
 (Vaomei), **people** caught hold of him.

Prior to example (40) the storyteller narrates for us the occasion of the action found in (40). Buto has asked for recompense from Vaomei for his brother Vadu having broken his brother-in-law Aseda's arm. Only Buto and Vaomei are on stage at this time. Because Vaomei refuses to make any kind of payment and instead makes fun of Buto, Buto picks up his club and charges after Vaomei. In the above sentence, the first clause is transitive and only overtly refers to a prop, 'the club', not naming the two core arguments. In the second clause, which is intransitive, the core argument is left to zero anaphora as well. Before a third party as different actor is brought on stage in the third clause, the *-ha* suffix on the previous verb alerts the hearer.

Two further examples exemplify the different actor suffix *-ha*.

- (41) *Kes Danao nib-a li aii-ha / Mumso-t neha,*
 Kes Danao here-DAT come.SA hear-DA Mumso-ERG say
 "A-m adnamat Yosina Kes bake lo-lo-mozo".
 3SG-GEN daughter Yosina Kes to give-PROSP-DES
Kes came here to Danao and when (**he**) listened, **Mumso** said that **he** was
 going to give his daughter Yosina to Kes.
- (42) *Ne Kilisokoba-t neo ab vou vai-h-am. //*
 CON Kilisokoba-ERG next INDIC with chase-REAL-INDIC
Vi emoe-me / vule vi aa-ha / dam le
 DIR run-SA go.behind.SA DIR see-DA people go.SA
esu. // Num ahi-li esu...
 stay house two-ICP.SA stay
 Then **Kilisokoba** next chased after (her). (**He**) having run behind (her), and
 (**he**) going into (the jungle) behind (her), when (**he**) looked (DA), **the people**
 had arrived and were staying. (**They**) were staying in two houses.

2.2.2.2 CONNECTORS THAT SIGNAL DIFFERENT ACTOR

Certain connectors also signal different actors.

2.2.2.2.1 *-mu* 'because'

The enclitic *-mu* functions as an interclausal connector. It is an enclitic suffixed to the verb of the clause which expresses the reason for the following result. It will usually signal a different actor for the subsequent clause. (See under §2.3, 'Special rules').

- (43) *Labi fa agute-he-mu Tuha a-m dubu bake tau.*
 CON bone break-DA-CON.because Tuha 3SG-GEN old.bro to join
 Because (the medical worker) broke (Aseda's) arm, **Tuha** sided with his
 older brother.

In example (43) a prior span of text has just narrated for the hearer that the medical worker broke Aseda's arm. At this point in the story, Tuha, a new participant, is brought into the story line. He is the Actor of the intransitive verb 'join'. That he is the new Actor of the intransitive clause is signalled by *-he*. The *a* in *-ha* has been raised to *e* as a result of *-mu* having been suffixed.

- (44) *Buto-t ozo / a-m dam-at bisi*
 Buto-ERG think 3SG-ABS people-ERG really
si-meham-de-he-mu / fa mu /
 hold.onto-PROG-STATIVE-DA-CON.because ITR give.up.SA
fa ab le-h-am.
 ITR INDIC come-REAL-INDIC
Buto considered that **people** had been holding onto him for such a long time,
 so (**he**) instead gave up and returned (to his house).

In example (44) Buto is the Actor of 'think'. Usually speech and cognitive orienters such as 'say' 'call out' and 'think' have zero inflection preceding their content which is the case in (44). In this situation zero inflection on verbs for the switch-reference marking schema equals same actor prediction. In other words 'think' is effectively marked for same actor. The dependent clause is bypassed and Buto is coreferential with the single nominal argument of 'give up'. Even though that is so, Bauzi still marks the verb 'hold onto' as different actor in anticipation of the resumed Actor of 'give up'.

- (45) *Labi i-m na gi-hi zia-me mode-ha /*
 CON 1PL-ABS food pit-REAL untie-SA do-DA
gae-de-he-mu / fa va-me / vua /
 raw-STATIVE-DA-CON.because ITR take.PL-SA fire
ohu-du-me / esmo-zi / valo lazi /
 cook-CONT-SA leave-SA river.DAT go.down.SA
ehu-da-meam aa-ha / Uluvai fa ahate lezi /
 swim-CONT-SIM see-DA Uluvai ITR openly come.down.SA
num bake ab vim bio-h-am.
 house to INDIC upstream cross.over-REAL-INDIC
 When we opened up (DA) the pit cooked food, because (it) was not cooked
 (DA), (we) took (the sago) and put it on to cook, (we) left it and went down to
 the river and were swimming and when (we) looked (DA), **Uluvai** openly came
 down to the beach and crossed over the river upstream to the house.

The verb 'untie-do' has the *-ha* different actor suffix which signals that the single argument in the subsequent verb 'not cooked' is coreferential with previously mentioned 'sago cakes' via zero anaphora, and not with 'we'. The verb 'not cooked' also has the different actor suffix *-he* and interclausal connector suffix *-mu* attached. These suffixes indicate first that the

subsequent clause will have a new Actor and that the subsequent clause will be the result of the action signified by 'not cooked'. The different actor suffix on 'not cooked' signals that the nominal core argument in 'take' is coreferential with 'we', but via zero anaphora.

2.2.2.2.2 *làhàmu* 'therefore', 'because of the given'

This connector marks the response for the propositional relationship reason-response and it marks the response side of stimulus-response type relationships (for instance it is used before the execution by a different Actor of proposals or commands uttered in direct quotes). This connective usually operates above the sentence level.

Làhàmu is the result of a morphophonological change which takes place when the suffixes *-he* and *-mu* are added to the anaphoric deictic *laha*. (*Laha* points to the preceding given.) The morphophonemic process can be stated like this: When the *-he* and *-mu* suffixes follow the deictic *laha*, a process of fusion takes place between the *ha* of *laha* and the *he* of *-hemu*. The *h* in *-hemu* is lost and the *e* raises the last *a* in *laha* to *à*. This *à* in turn also raises the first *a* to *à*: *laha* + *-hemu* → *làhàmu*.

- (46) *Lahana i-ba nao vàmtea vou li / lu à-m*
 CON 1PL-DAT leg one with come.SA give.SA eat-IRR
kai. // Làhàmu dubu-t ab usa-i / Esili bake
 NEG CON.DA old.bro-ERG INDIC get.up-SA Esili toward
im ab vaho-ke-da-m-am.
 words INDIC teach-CONT-IRR-INDIC
 But (he) did not even bring one leg and give it to us to eat. Therefore **older brother** got up and (started) rebuking Esili.

In example (46) above, besides the fact that the *làhàmu* connector is signalling a new Actor, the new Actor is also mentioned overtly by a proper noun, his kinship term.

In example (47) below, there is the group of three people and the man who is lying on the ground who are on stage at the moment. Without an overt Actor being mentioned in the second sentence, the hearer knows it is the group of 'people' who 'came closer' because of the connector *làhàmu*.

- (47) *Dam vim emoe-me / le / aa-ha / dat belu*
 people upstream run-SA go.SA see-DA man strike.SA
bis-da. / Làhàmu le / aa-ha ...
 lie.down-CONT CON.DA go.SA see-DA
 The **people** went running upstream, (**they**) arrived, and when (**they**) looked (DA), (**someone**) had struck the man and (**he**) was lying down. Therefore (**they**) came (closer) and when (**they**) looked...
- (48) *Nahano-ti Gaetfa-ti lab-e nom tozo. "O-m ana*
 Nahano-and Gaetfa-and there-ERG down ridicule 2SG-ABS what
ote-me o-m lahi behàsu maboe-le-tam." Làhàmu fa
 kill-SA 2SG-GEN wife two widow-ICP-EMP CON ITR

usa-i / lab-e emoe-he-lab-e...

get.up-SA there-ERG run-REAL-there-ERG

Nahano and Gaetfa ridiculed down to him (Buto). "For what reason should we think of to kill you that would leave your wives as widows."

Therefore (**Buto**) arose and running from there...

In example (48) above, with only Buto and the other two antagonists on stage, the hearer knows that the single core argument in 'get up' is coreferential with Buto because of the use of the connector *làhàmu*.

A similar phonological change takes place when *-he* and *-mu* are suffixed to the continuative aspect marker *-da*. The *he* fuses with the *da* causing the loss of *h* and the raising of *a* to *à*. This can be represented as: *-da + -hemu* → *-dàmu*. Here too the Actor changes after the 'because' suffix.

Examples (49) and (50) illustrate this second morphological change.

- (49) *Labi na lo-m bak mali mode-mu /*
CON thing give-IRR NOM be.against.SA do-CON.because

vedi fa Buto bake tozo-i-dà-mu /
thought ITR Buto to ridicule-ITR-CONT.DA-CON.because

Buto-t aibu-e-da-m-di-lab-e / ut viso-i...
Buto-ERG night-ICP-CONT-IRR-SIM-there-ERG club pick.up.SG-SA

Because (**Vaomei**) was against giving recompense, rather because (**he**) thought to repeatedly ridicule Buto, **Buto**, after it became dark, picked up his club...

- (50) *Labi si mode-ha / dam [lab-a tau-a-da-m-da]*
CON seize do-DA people there-DAT join-ITR-CONT-IRR-PTS

dua-li / Buto bake ototo nimi ototo
many-ICP.SA Buto to RCP prance RCP

nimi-dà-mu / Buto-t Vuemàhà-m
prance-CONT.DA-CON.because Buto-ERG Vuemàhà-GEN

digehi lam viso-i...

bow that pick.up-SA

When (**the people**) had seized (Buto), because [**the ones who had joined up with the others**] were many and were calling out criticisms while prancing toward each other, **Buto** picked up Vuemàhà's bow...

2.3 SPECIAL RULES

The general rules showing how the switch-reference marking schema operates in Bauzi have been set forth above. For the majority of the texts the same actor suffixes *-me* and *-i* attached to a verb indicate that the following clause will have the same actor as the present one. The different actor suffix *-ha* attached to a verb indicates that the following clause will have a different actor from the present one. There are a few exceptions to these general rules which will now be discussed.

2.3.1 MEMBER-SET RELATION

Two general statements about the present data are stated in Rules (9) and (10) below.

Rule (9): Given any two clauses, if the core argument in the first clause is increased or **enlarged** in the second clause, then the **same actor** suffix will occur on the first verb, signalling that the subsequent core argument is coreferential with the argument in the first clause.

Rule (10): Given any two clauses, if the core argument in the first clause is **decreased** in the second clause, then the **different actor** suffix will occur on the first verb signalling that the subsequent core argument is different with the argument in the first clause.

When the coordinating noun phrase suffix *-ti* is attached to a different noun phrase from the Actor of the preceding clause, the Actor of the second clause is enlarged to include both the former Actor and the entity represented by the phrase with *-ti*. Following the different Actor suffix, the Actor of the next clause is understood to be decreased by one of the two. Example (51) below exemplifies this and both the general statements above.

- (51) *Làhàmu Aseda ut viso-i / fa manteri-ti ot belu-ia-me*
 CON Aseda club pick.up-SA ITR med.worker-and RCP fight-ITR-SA
mode-ha / da fai-na fa ab agute-h-am.
 do-DA man bad-PTS bone INDIC break-REAL-INDIC
 Therefore **Aseda** picked up his club and when (**he**) and the medical worker
 fought each other, (**the medical worker**) broke the old man's (Aseda) arm.

Because the medical worker struck Aseda's wife prior to the actions outlined in example (51), Aseda then picks up his club and he and the medical worker start fighting each other. Aseda is the Actor of the verb 'pick up,' which has the same actor suffix attached. In the next clause, the core argument for 'fought each other' is enlarged to include both Aseda and the medical worker. In the narrator's mind the singular nominal and the coordinate nominals are coreferential. This is signalled by the use of the same actor suffix on 'pick up'.

In addition the different actor suffix *-ha* occurs with the verb 'fight each other' indicating that the coordinated Actor, Aseda and the medical worker will be reduced in the next clause. The medical worker via zero anaphora is the Actor of 'break' in the succeeding clause.

- (52) *...laha-me fa dae-t be-ha vaba-mu / zum*
 like.that-SA ITR words-ERG argue-DA NEG-CON.because downstream
bio-u / Ofakete-ti gi vabak lab-a fa-si / vou
 cross.over-SA Ofakete-and ATN beach there-DAT to.begin-SA with
vabeo-la-me / fa num-a ab vou
 strike.while.chase.ITR-CONT-SA ITR house-DAT INDIC with
la-h-am.
 go-REAL-INDIC

...because (**they**) argued like that and stopped, (**Aseda**) crossed over downstream and (**he**) and Ofakete began to fight (each other) there on the beach with (**him**) striking (her) as (**he**) chased after (her) all the way to the house.

When someone cut down his banana plants, Aseda expressed his annoyance. At that point the post-quote margin appears. Aseda is the Actor of 'argued' which has the different actor

suffix *-ha* attached. Aseda is also the Actor of the next clause 'crossed over downstream'. This is where the special use of switch-reference marking schema is employed. Even though Aseda is part of the group that fights, he is not considered coreferential with the larger group. As Foley (1986:189) says, "the exclusivity of the singular actor is at issue". It is Aseda's separateness from the group Actor that is in focus and so the different actor suffix is employed.

Core argument enlargement across clause boundaries is also illustrated in example (52) above. The same actor suffix *-u* on 'cross over' indicates that the plural Actors, 'Ofakete and Aseda', of the subsequent verb 'begin (to fight)' is coreferential with Aseda, the understood Actor of the previous verb. The narrator includes the singular Actor of one verb in the plural Actor of the second verb.

Examples (51) and (52) show that when there is an enlargement in the set of participants in the succeeding clause, Bauzi favours using the same actor suffix. Those examples also show that when there is a reduction in the set of participants in the succeeding clause, Bauzi favours using the different actor suffix.

In example (53) below the narrator has used a same actor suffix on the verb when a set of participants has been enlarged.

- (53) *Koai lab-e ab gago-h-am. // "Fa audo-t*
 corpse there-ERG INDIC say-REAL-INDIC ITR short.cut-ERG
zum fooze-lo moza" /
 DIR.downstream go.down.from.higher.plane-PROSP DES
laha-me gagu / ab le-da-m-am.
 like.that-SA say.SA INDIC come-CONT.PL-IRR-INDIC
 The **corpse** spoke. "(I) am going to cut across the jungle via a short cut and
 come down to the beach downstream." Like that (**he**) having said, (**they**) were
 coming.

Prior to example (53), the one referred to by the common noun 'corpse' disregards his co-workers' advice and says to them that he wants to take a short cut, and after that they leave together. In this case the Actor has changed from one person to many people, as can be seen in the plural suffix on the verb 'come' indicating that the Actor of this intransitive clause is plural. But here the narrator uses the same actor suffix on the verb 'say' showing that he considers the two implicit Actors to be the "same".

In example (54) below, again the single participant of one clause is enlarged in the succeeding clause, yet the narrator by using the same actor suffix makes the singular Actor coreferential with the plural Actor.

- (54) *Làhàmu Itbulu-hat gago, / "Imo num Lobio-bada na*
 CON Itbulu-ERG say let's house Lobio-PTS food
ohu-m num lab-a esu / vou es-da-hit /
 cook-IRR house there-DAT put with stay-CONT-until
diha-se" / laha-me gagu / i-ho ame
 become.daylight-SUBJ / like.that-SA say.SA 1PL-ERG b.m.
koai la-m viso-i vou la-ha / dam koai
 corpse there-ABS pick.up-SA with go-DA people corpse

num lada lab-a esu-m kai.
 house PTS there-DAT put-IRR NEG

Therefore **Itbulu** said, "Let's put the (corpse) in Lobio's cookhouse and stay with it there until morning". Like that (**he**) said, and so **we** picked up that corpse and when (**we**) carried it away, the **people** (changed their minds) and didn't put the corpse down in that house.

In example (54) above Itbulu makes a proposal to the people looking after the corpse of a girl who has been bitten by a death adder. In the post-quote margin 'like that he said', the same actor suffix is attached to the verb. In this case the narrator once again sees Itbulu as a member of the set of participants referred to by the pronoun 'we'. They join together and attempt to take the corpse to where he suggested it be taken. But when they do so, part of the group decides not to take it to that house after all. Here reduction takes place and the different actor suffix is attached to 'carry away'. The narrator separates part of the group off from the ones who favoured Itbulu's proposal. The group is split and no longer coreferential with Itbulu.

2.3.2 EXPECTANCY CHAIN

The third special rule in relation to Bauzi switch-reference marking schema has to do with expectancy chains. This chain consists of two or more clauses linked together forming a close knit sequence of cause-effect. These have also been called "implicated clauses" (Austin 1981:313) where the situation described by the second clause occurs after and is implicated by the situation described by the first clause. For example: 'give – eat'; 'hit – fall down'; 'call – come'; 'bite – die'; 'strike – die'. These are called expectancy chains because the second verb is the normal effect one would expect should the action of the first verb be fulfilled.

In example (55) the same actor suffix on one verb indicates that the next verb will have the same Actor, yet the following Actor is different. Although that is the case, the action of the second verb is expected.

- (55) *Labi Vadu-hat ozo-ha / am na beo-he-mu fa*
 CON Vadu-ERG think-DA his sister strike-DA-CON.because ITR
Sembina beo-me ab nusu-h-am.
 Sembina strike-SA INDIC sit-REAL-INDIC
 Then **Vadu** thought, because (**Aseda**) struck his sister, (**he**) struck Sembina, and (**she**) sat down.

The switch-reference marking schema is working fine until you come to the same actor suffix *-me* on the verb 'strike'. The Actor of 'strike' is not the Actor of 'sit down'. Since this is an expectancy chain, the change of Actor is ignored and the same actor suffix used.

- (56) *Da lam tamao-t belu elo.*
 man that poisonous.root-ERG strike.SA die
 As for that man – **the poisonous root** struck (him) and (**he**) died.

In example (56) 'that man' is the forefronted Undergoer. The noun phrase 'poisonous root' is marked with the ergative case suffix *-t* signalling that the 'poisonous root' is the Causer of the man being 'struck'. Attention is drawn away from the animate Actor who is the one who picked up the poisonous root solution and puts him in the background while highlighting the

Causer. But the Undergoer becomes the Actor of 'die' in the second clause. Since the Undergoer is also topic of the sentence, one might translate the sentence using a passive 'that man was struck down and died as a result of having drunk the poisonous root liquid'. The different actor is once again ignored and the same actor suffix is used. It was previously stated that the different actor suffix *-ha* carried with it the nuance of unexpectancy. Because in expectancy chains, the action in the clauses follow a logical sequence, the different actor suffix is not used.

- (57) *Da lam tamao à-me elo.*
 man that poisonous.root eat-SA die
 As for that man – (he) ate the poisonous root and (he) died.

While in example (56) the Actor is backgrounded, in (57) he is not. He is the Actor of both the transitive verb 'eat' and the intransitive verb 'die.' It can be seen from these two examples that in both the expectancy chains 'strike – die' or 'eat – die' the switch-marking schema works the same way, whether the actual Actor is the same or not.

Four more examples to illustrate this special rule are in examples (58) to (61).

- (58) *Oi ai-at bute-me le.*
 mother father-ERG call-SA come
 As for mother, **father** called her and (she) came.
- (59) *A-m mum-at vee-me elo.*
 3SG-ABS snake-ERG bite-SA die
 As for him, **a snake** bit (him) and (he) died.
- (60) *Vahada doho do-u biti elo.*
 younger.bro pig shoot-SA fall.down.SA die
Younger brother shot the pig and (the pig) fell down and died.
- (61) *[E-ho doho amomoi si ousu-me / budua-li /*
 1SG-ERG pig another seize pen.up-SA big-ICP
ote-me à-m] uloho bak.
 kill-SA eat-IRR same DECL
 [My seizing another pig, penning it up and (it) becoming big and (my) killing it]
 is the same as (what you have done).

In example (61) above the verb 'pen up' has the same actor suffix on it. The Actor of 'pen up' of course is the speaker who uttered the words. But the Actor of the succeeding verb 'become big' is not the speaker, rather it is 'the pig'. So here is another example where the change of Actor is ignored.

Example (62) shows other expectancy chains where the change of Actor is ignored.

- (62)a. ...*voo-u bis-da.*
 throw.away-SA lie.down-CONT
 ...(I) throw (it) away and (it) lies down.
- b. ...*voo-u sete.*
 throw.away-SA become.lost
 ...(I) throw (it) away and (it) becomes lost.

- c. ...*lu* *à*.
 give.SA eat
 ...(I) give (it to you) and (you) eat (it).
- d. ...*bahe ohu-du-me* *àde*.
 taro cook-CONT-SA come.to.state.of.being.cooked
 ...(I) cooked the taro and (it) became cooked.

2.3.3 CHAINS INVOLVING NATURAL EVENTS

In the switch-reference marking schema Bauzi distinguishes between normal natural events that occur every day, such as night and day, and highly impacting unexpected natural events such as drought, rainstorm and river flooding. For instance, a change of Actor seems to be ignored if the succeeding verb is a normal natural-process verb employing the Inceptive (ICP) aspect. This is exemplified in example (63).

- (63) *Dam koai vou es-du-me / disi*.
 people corpse with stay-CONT-SA evening.ICP
 The people stayed with the corpse and **it** became evening (*or*: The people stayed with the corpse until evening.)

In example (63) the verb 'stay with' indicates that the following clause will have the same actor. Yet the following clause has null Actor. This is not unusual. One could say the referent 'people' were experiencing 'evening' or the people were 'evening-ed'.

- (64) *Koai nuzuba esu / vou me-be esu-i-du-me / aibu-le*.
 corpse floor stay.SA with cry-SA stay-ITR-CONT-SA dark-ICP
 (They) put the corpse on the floor and stayed with it, repeatedly crying on and off and then **(it)** became dark (*or*: on and off until dark; *or*: on and off until they were benighted).

In example (64), again change of Actor is ignored when the succeeding clause contains the Inceptive aspect.

Another case appears in example (65) below where the change of Actor is ignored between 'cut down' and 'become high noon (lit. become up)'. However between 'become high noon' and 'return home', the change of Actor is signalled by the *-he* suffix on 'become up'.

- (65) *Ut si-à-du-me / ala toma-le-he-mu / fa*
 tree cut.down.PL-ITR-CONT-SA sun up-ICP-DA-because ITR
 num bake la.
 house to go
 (They) continually cut down the trees and because **(it)** became high noon, **(they)** returned home.

The examples above show that, in the Bauzi way of thinking, processes like 'become dark' and 'become daylight' are experienced by the Actor and therefore are coreferential with the Actor. In contrast, in clause chains where highly impacting unexpected natural events follow controlled events, Bauzi favours different actor marking. Examples (66) to (68) demonstrate this.

- (66) *Zum la-du-me mode-ha / aba dali-he-mu / fa ita.*
 downstream go-CONT-SA do-DA rain strike-DA-because ITR flee
 (We) were going downstream when rain started falling (lit. rain struck), so (we) fled back (home).
- (67) *Vim bio-so-me mode-ha / vao dua-le-he-mu /*
 upstream cross.over-CNT-SA do-DA water big-ICP-DA-because
bio-m bi / fa num bake le.
 cross.over-IRR unable ITR house to come
 (We) were attempting to cross over towards upstream when the **river** flooded, so (we) returned to the house.
- (68) *Dam na gia-da-meam / aa-ha / balim li / bak*
 people thing tie.up-CONT-SIM see-DA earthquake come.SA ground
itiiti-dà-mu / dam ab iede-h-am.
 shake.shake-CONT.DA-because people INDIC become.scare-REAL-INDIC
People were pit cooking food when an **earthquake** came and shook the ground, so the **people** fled.

2.3.4 UNDERGOER PROCESS

In the next two examples the verb in the preceding clause, which has two core arguments (Actor and Undergoer), has the same actor suffix, yet it would appear that the Actor is different for the succeeding verb. However, Bauzi favours same actor marking in these instances.

- (69) *Amu tat vie-me esu. // Labi afoe-zobe / fao-be*
 earlier weeds do-SA leave CON finish-CON.SA wait-SA
deha-le-he-zobe / fa neo vua-t usi.
 dry-ICP-REAL-CON.SA ITR next fire-ERG ignite
 First **we** cut down the weeds and (we) leave them. Then after (we) do that, (we) wait a while and after (**the weeds**) have become dried, (we) next burn them.
- (70) *Labi de-me neà-di / fao-du-me / afoe-zobe*
 CON plant-SA good-STATIVE.SA wait-CONT-SA finish-CON.SA
soa-le-he-zobe / fa ab ba-dda-h-am.
 body-ICP-REAL-CON.SA ITR INDIC dig.up-CONT-REAL-INDIC
 Then after (we) finishing planting them, (we) wait and afterwards, after (**they**) become mature, (we) dig them up.

2.3.5 A TRANSFORMED PARTICIPANT

Example (71) below is an interesting one, as the verb in the preceding clause has the different actor suffix, yet it would appear that the Actor is the same for the succeeding verb with the Inceptive aspect. However, in the Bauzi view once the bird has become a cuscus, it is a different entity.

- (71) *Labi lab-a nusu-ha / ab loke-bu-le-h-am.*
 CON there-DAT sit-DA INDIC ground.cuscus-CL.big-ICP-REAL-INDIC
 Then when the (bird) sat there (on the tree branch), it turned into a ground cuscus.

Example (71) is taken from a text about the death of a child from snakebite. In order to find out who performed sorcery that led to her death, they take the corpse down to the river and call on the spirits. They soon hear fluttering in a nearby tree. Suddenly what they thought was a bird turns into a ground cuscus. In the eyes of the narrator, there is a new participant and it is the ground cuscus that is prominent over the next span of text.

A similar example is found in example (72) below.

- (72) *Num ohu-ba es-da-m ahagat nib-e*
 house roof-CL.flat stay-CONT-IRR rodent.type here-ERG
usi mode-ha / fa ab name-le-h-am.
 come.down.SA do-DA ITR INDIC woman-ICP-REAL-INDIC
 The rodent that was staying on the rooftop of the house came down from here and then (it) turned into a woman.

Examples (73) and (74) below show that Bauzi requires the different actor suffix even if the Actor is not changed completely, but only partially.

- (73) *Làhàmu e-ho fao-da-ha / vanama-he-mu...*
 CON 1SG-ERG wait-CONT-DA become.tired-DA-because
 Therefore I waited and waited and because (I) became tired...
- (74) *Labi Toeà a-hamo lab-a tom fiozi /*
 CON Toeà 3SG-EMC there-DAT up go.out.of.sight.SA
ozo-ha vaba-mu / a-m iede-he-mu...
 think-DA NEG-because 3SG-ABS become.scared-DA-because
 Then Toeà himself went up there out of sight, (he) considered what to do (lit. thought and thought and then stopped thinking), and then, because he became scared...

3. BAUZI CASE MARKING FOR CORE PARTICIPANTS

3.1 GENERAL STATEMENT

The Bauzi case-marking system may be summarised as the use of word order in combination with nominal case suffixes for the core participants in a discourse, such as Actor and Undergoer, and the use of nominal case suffixes and a postposition for nominals functioning as peripheral arguments to the action (such as Instrument, Beneficiary or Recipient) or specifying its location (such as Locative) (Foley 1986:96). The present author is claiming that Bauzi should be classified as an ergative language based upon the classic definition of ergativity which will be expounded below.

At this point, it seems useful to outline briefly some of the characteristics of Bauzi morphology as it relates to the topic of case.

TABLE 1: BAUZI CASE-MARKING ENCLITICS AND POSTPOSITION

LAST ELEMENT OF NOMINAL PRECEDING THE CASE MARKER	CASES			
	GEN	ABS	ERG	DAT
Personal pronouns	- <i>m</i>	- <i>m</i>	- <i>ho</i>	- <i>ba</i>
Demonstrative <i>nib, lab, iub</i>	–	- <i>m</i>	- <i>e</i> ~ - <i>et</i>	- <i>a</i>
Personal names, kin nouns, titles, human nouns	- <i>m</i> ~ - <i>am</i>	Ø	- <i>t</i> ~ - <i>at</i>	<i>bake</i>
Place names	Ø	–	- <i>e</i> ~ - <i>Vt</i>	- <i>a</i> ~ <i>bake</i> ~ Ø
Common nouns, adjectives	Ø	Ø	- <i>t</i> ~ - <i>Vt</i>	- <i>a</i> ~ - <i>e</i> ~ - <i>o</i> ~ - <i>l-</i> ~ <i>bake</i>
Indefinite pronoun <i>mei</i>	Ø	Ø	- <i>t</i>	- <i>a</i>
Particularisers - <i>da</i> , - <i>na</i>	–	Ø	- <i>t</i>	- <i>te</i>
Clause nominaliser <i>bak</i>	–	Ø	- <i>e</i> ~ - <i>et</i>	- <i>e</i>

In Bauzi there are four sets of case markers: genitive, absolutive, ergative and dative. The genitive and absolutive sets are minimally different, as may be seen in Table 1. The four sets are used for the following grammatical functions and/or case roles:

Genitive : possessor

Absolutive : intransitive actor, undergoer, unmarked transitive actor, both halves of a (verbless) equative clause

Ergative : marked transitive actor, speaker, instrument, inanimate transitive actor (causer/potent), manner, path, ablative (source from)

Dative : location at, allative (goal/destination to), addressee, recipient, beneficiary

These case markers all follow the last word of a nominal. All are enclitics except for the postposition *bake*. They occur with both definite and indefinite nominals.

The form of the case markers depends on the grammatical class of the last word in the nominal which they follow as shown in Table 1. In certain instances to be discussed later, there are additional forms determined by the phonology of the last word in the nominal.

Each of these cases will be discussed in turn below, beginning with those that apply to the core participants.

3.2 CORE PARTICIPANTS

3.2.1 MARKED/UNMARKED WORD ORDER

For Bauzi, word order is important in expressing the grammatical functions of Actor (A) and Undergoer (U). The usual way of expressing these is for the first nominal in the clause to function as the Actor and the second nominal to function as the Undergoer. These core participants do not receive any suffixes when they are in this order.

- (75) *Ai oi belu bite.*
 father mother hit.SA fall down
 A U V

Father hit **mother** and (she) fell down. (*or*: Father struck mother down.)

This is the unmarked word order. One way that linguists interpret the notion of 'marking' is by relating it to frequency of occurrence. This is the interpretation that the present author is taking when using the term 'marked'. To say that this is the unmarked word order in Bauzi is to say that this is the usual, more common order (Crystal 1985:188). However, when the not so usual word order is used, that is, when the marked order is used, the Actor becomes grammatically marked with the Ergative case marker *-t*.

- (76) *Oi ai-at belu bite.*
 mother father-ERG hit.SA fall.down
 U A V

Father struck mother and (she) fell down.

In example (76) above the usual order is abandoned and Undergoer takes on a forefronted position. (In this paper, when topic is pertinent to the discussion at hand, the topic in the English translation will be indicated by underlining.) At the same time Actor is right-dislocated and is marked with the Ergative case suffix *-t*. (Usually when the nominal to which the *-t* is being added only contains one syllable or if the nominal ends in a consonant, the vowel *a* is added to make a two-syllable nominal.) Another way to say this is: if Actor and Undergoer are switched from the usual or unmarked order, Actor must be marked with the Ergative case suffix to distinguish between the two arguments. This is how a narrator can switch word order and thus mark a participant such as Undergoer to give it prominence in a discourse.

- (77)a. *Ihiso nib-e Noi nib-e vi ole.*
 Ihiso here-ERG Noi here-ERG behind enter
 A S V

Ihiso from the **Noi** River entered behind (the others).

- b. *Ne vi ole-he-lab-e / vule / vi gagu*
 CON behind enter-REAL-here-ERG go.behind.SA behind say.SA
 V V V

mode-ha / bohudi / Viloho-ti be-be mode-ha / Ihiso
 do-DA fight.SA Viloho-and fight-SA do-DA Ihiso
 V A V U

Viloho-t neuha fa belu esmo.
 Viloho-ERG elbow bone hit.SA leave.behind
 A V

(She) entered behind (the others) and followed after them and then when (she) talked to them, (she) and Viloho fought, and when (they) fought, **Viloho** struck Ihiso on the elbow and left her behind.

Prior to the events of example (77), Viloho has made the statement that she would not allow her daughter to be married to Tomat. So she takes her daughter and flees to the jungle. Then the participant Ihiso becomes the star of the show by the choice of the narrator who happens to be her nephew. She is the Actor of these actions in (77b): 'entering', 'following after', and 'saying'. She is first introduced in full with a noun phrase *Ihiso nibe* 'this Ihiso'. For demonstratives the Ergative suffix *e* is used and not *-t*. And then according to Bauzi participant tracking schema, she as Actor receives zero reference throughout this span of text. The verb prior to 'fight' is 'say-do' and it has the different Actor suffix *-ha* attached which indicates that the Actor of the succeeding verb 'fight' will be different. As there are only two people on stage at this time, the Actor of the succeeding verb is Viloho, but via zero anaphora. The verb 'fight' is marked for same Actor because the narrator sees the coordinate Actor 'and Viloho' coreferential with Ihiso. As was seen under §2.4, enlargement of Actor across clause boundaries is usually marked with the same Actor suffix. The next verb 'fight-do' has the different Actor suffix *-ha* attached. At this point in the story Ihiso changes from Actor to Undergoer when Viloho strikes her and knocks her down. The narrator chooses not to follow the usual (unmarked) word order here. Prior to this time he has chosen to keep Ihiso prominent throughout this paragraph and has done so with the unmarked word order. However, here this cannot be readily seen because the Actor has zero reference due to discourse participant tracking constraints. But now he switches to the marked order. The Actor (Viloho) is right-dislocated from its usual position and is marked with the Ergative case suffix *-t*. In order to keep Ihiso prominent, he forefronts the Undergoer and the word order becomes thereby marked. Actor can still be disambiguated by the Ergative case suffix with which it is marked.

- (78)a. *I-m Bogo-m goha va-da-lo i-m*
 1PL-ABS Bogo-GEN bride.wealth take-CONT.PL-PROSP 1PL-ABS
 A U V U
- Muà-da ahebu Kabilo-t ate-me / Kustera iub-a*
 Muà-CL.people all Kabilo-ERG gather-SA Kustera there-DAT
 A V LOC
- ihe-t ab vou zum la-h-am.*
 canoe-ERG INDIC with downstream go-REAL-INDIC
 INST V

Because **we** would take the bride wealth from the giving of Bogo, **Kabilo** took all of us Muà people by canoe downstream to Kustera.

New Paragraph:

- b. *Labi Kustera lab-a le / Bogo Timotius-at si*
 CON Kustera there-DAT go.SA Bogo Timotius-ERG seize.SA
 LOC V U A V

va-he-mu / *vamea-da-ha* / *vabamu* *gi* *fa*
 take-DA-CON.because talk-CONT-DA discontinue.SA just ITR
 V

na am ab va-da-h-am.
 thing that.ABS INDIC take-CONT.PL-REAL-INDIC
 U V

And so (we) having gone/arrived in Kustera, because **Timotius** had seized and taken Bogo as his wife, (we) negotiated (with the Kustera people) and reached a decision and started receiving/taking the (bride wealth) things.

- c. *Ae* [*Bogo-m goha-le-he-da*] *la-m*
 bushknife Bogo-GEN bride.wealth-ICP-COMP-PTS there-ABS
 U

va-da.
 take-CONT.PL
 V

(We) were taking the bushknives [that were given as bride wealth for the giving of Bogo].

- d. *Labi nà Faneà-m goha la-m Kosa-t i-ba*
 CON sister Faneà-GEN bride.wealth there-ABS Kosa-ERG 1PL-DAT
 U A R

neo vi lo-da.
 next behind give-CONT.PL
 V

And **Kosa** was next giving to us the bride wealth for the giving of Faneà.

This example has been taken from a narrative text describing the events surrounding the death of a village medical worker. In example (78a) in the first clause, the Actor is signalled with the first person plural absolutive pronoun *im* 'we'. The narrator has intruded into the events being described, so he uses the first person personal pronoun to refer to himself as well as the other participants involved in the action expressed by the following verbs. In order to keep himself along with others in his group designated by 'we' dominant in the discourse, the narrator switches to the marked order in the second clause of (78a) and moves Undergoer to initial position in the clause. This right-dislocation of the Actor and left-dislocation of the Undergoer allows subject properties to be attributed to the Undergoer which in turn make the clause function like a passive; for example 'all of us Muà people were gathered together by Kabilo and were taken downstream by him to Kustera'. The Actor Kabilo receives the Ergative case suffix *-t* signalling him as the Actor but downplaying his role a bit, while at the same time indicating that he is the one active in the 'bringing of the people downstream'. Then a subject change takes place across paragraph boundaries and 'we' becomes the zero-marked Actor of 'having arrived downstream in Kustera'. 'We' continues to be the Actor, howbeit via zero reference, up until the second clause in example (78b), where there is a background dependent clause with a new Actor, Timotius. Background dependent clauses are ignored in the Bauzi schema of tracking participants. (There is no different Actor suffix on the verb preceding this embedded clause; special rules for the switch-reference marking schema in Bauzi are discussed under §2.3 above). But even in this dependent clause Bogo, who is the Undergoer of the actions 'seize' and 'take', is also fronted and the Actor Timotius receives the Ergative case suffix *-t* signalling that he is the one

who brought about the action as expressed in the verbs 'seize' and 'take'. In both examples (78c) and (78d) the Undergoer is the prominent participant and 'we' is still the Actor through zero anaphora. In both the last clause of (78b) and the clause in (78c), if an overt pronoun were supplied it would have to be from the ergative set of pronouns. For instance if (78c) was heard in isolation it would be:

- (79) Ae [Bogo-m goha-le-he-da] la-m
 bushknife Bogo-GEN bride.wealth-ICP-COMP-PTS that-ABS
 U
 i-ho va-da.
 1PL-ERG take-CONT.PL
 A V
 We were taking the bushknives [that were given as bride wealth for the giving of Bogo].

In example (78d) above there is a shift to the Dative case pronoun *iba* to refer to the participants who were in the previous clause referred to with zero anaphora. Because the narrator changed from the verb 'take' to the verb 'give', he was forced to introduce a new Actor, namely Kosa, while still keeping Undergoer prominent, so the right-dislocated Actor receives the Ergative case suffix -*t*.

3.2.2 ERGATIVITY IN BAUZI

What is happening when the Actor has this Ergative case marker -*t* can be explained by a process that Foley (1986:107) describes as "generalizing". According to Foley, case marking the Actor of a transitive verb results in an "ergative case-marking schema": the marked Actor is opposed to the unmarked intransitive Actor and transitive Undergoer. "The formal marker for the ergative is the peripheral case-marker for the ablative, causal and instrumental." This is partly true for Bauzi, as will be seen in the examples below.

The Instrumental case in Bauzi has been extended or generalised to take in a core relation, the Actor. One might say that the Actor is downplayed in cases where the Undergoer is forefronted, yet to show that he is still the causer or the performer of the action, the nominal representing the Actor receives the Ergative case suffix. So the Ergative case suffix -*t* on both definite and indefinite nominals realises both the peripheral role of Instrument and the core role of Actor. This can be seen in example (80) below.

- (80)a. Dubu vam bà-t ote.
 older.brother crocodile axe-ERG kill
 Older brother killed a crocodile with an axe.
- b. Vam la-m dubu-t bà-t ote.
 crocodile that-ABS older.brother-ERG axe-ERG kill
 Older brother killed the crocodile with an axe.

In describing ergativity Crystal (1985:111) says it is "a term used in the GRAMMATICAL description of some languages...where a term is needed to handle CONSTRUCTIONS where there is a formal parallel between the OBJECT of a TRANSITIVE verb and the SUBJECT of an intransitive one". (Object in this paper is Undergoer and Subject is Actor). This can be seen in the Bauzi example below.

- (81)a. Transitive verb: *beo* ‘strike’

<i>Ut-aaso-bu-t</i>	<i>gi</i>	<i>a-hamo</i>	<i>vihit-zi</i> /	<i>nom</i>	<i>ilu</i> /
tree-CL.branch-CL.big-ERG	just	3SG-RFL	pull.away-SA	down	fall
TOP (A)			V	V	

e-m	<i>ab</i>	<i>beo-ham.</i>
1SG-ABS	INDIC	strike-REAL.INDIC
U	V	

The **tree branch** of its own accord pulled away, fell down and struck *me*.

- b. Intransitive: *la* 'go'

<i>E-m</i>	<i>fa</i>	<i>neo</i>	<i>Noiadi-a</i>	<i>vim</i>	<i>la-m</i>	<i>bak.</i>
1SG-ABS	ITR	next	Noiadi-DAT	upstream	go-IRR	DECL
A			LOC	V		

I am next going to return upstream to Noiadi.

The first person singular Absolutive pronoun *em* 'me' is the Undergoer of example (81a). It has the same case suffix as when it is the Actor of the intransitive verb 'go' in (81b). In terms of an ergative-absolutive case-marking system, this pronoun belongs to the set of pronouns inflected for the Absolutive case. Also the Actor of the transitive verb 'strike' is marked with the Ergative case suffix *-t*. This is evidence for ergativity.

Thus Bauzi meets one of the criteria that DeLancey (1981:626-657) puts forward as being characteristic of ergative languages: namely a special case-form marks transitive subjects (Actors), while both intransitive subjects and transitive objects (Undergoers) are mostly unmarked. That is true for example (81) above.

A further characteristic that may be found in ergative languages is that, in transitive sentences, verb agreement is with the object (Undergoer) in preference to the subject (Actor). Bauzi does not inflect verbs for person, but there appears to be some sort of inflection for number. Usually this verb agreement is only with plural Undergoers. The suffix *-da* which is mainly used to show the continuative aspect can also be used as a portmanteau morpheme to show plurality as well. In addition, some verbs have two quite different stems, as shown in Appendix B, one singular and the other plural. In example (82) below the singular form of the verb 'to fell (a tree)' is *o*; while the plural form is *sie*.

- (82)a. Verbs exemplifying SINGULAR Undergoer or intransitive Actor agreement:

Dubu **doho** **ote-me** / vou le.
old.bro pig kill-SA with come
A U V V

Older brother **killed a pig** and brought it.

<i>Vahada</i>	<i>ti</i>	<i>o-me</i>	/ <i>fe-me</i> /	<i>le-he</i>	<i>bak.</i>
younger.bro	sago	fell-SA	pound-SA	come-REAL	DECL
A	U	V	V	V	

Younger brother **felled a sago tree**, processed it, and came.

Nenas *gai-li* **bis-da.**
Nenas hot-ICP.SA lie.down-CONT
A V

Nenas is sick and lying down.

Da lam valo ehu-da.
 man that water.DAT swim-CONT
 A LOC V
The man is swimming.

- b. Verbs exemplifying PLURAL Undergoer or intransitive Actor agreement:

Dubu na zi dua-na od-du-me / vou le.
 old.bro thing many many-PTS kill-CONT.PL-SA with come
 A U V V
 Older brother **killed many animals** and brought them.

Vahada ti zi dua-na sie-me /
 younger.bro sago many many-PTS fell.PL-SA
 A U V

fe-à-da-ha bak.
 pound-ITR-CONT.PL-REAL DECL
 V

Younger brother **felled many sago trees** and **processed (them)**.

Noiadi-da ahebu gai-li beo.
 Noiadi-people all hot-ICP.SA strike.PL
 A V

All the Noiadi people are sick.

Noiadi-da ahebu gai-le-du-me beimsu-o.
 Noiadi-people all hot-ICP-CONT.PL-SA lie.down.PL-DES
 A V

All the Noiadi people are sick and lying down.

The verbs in example (82a) are not inflected with number as each of the Undergoers is singular. Another way of saying this is that the verbs are unmarked, which signals that verb agreement is with singular Undergoers. As can be seen from the way *-da* is glossed, it is a portmanteau and can express both plurality and the continuative aspect at the same time. In an intransitive sentence, if the Actor is singular it will only have the meaning of continuative aspect. There is verb agreement with only the Undergoers of the transitive verbs in (82b). They are either inflected with the *-da* suffix and/or have a different verb stem to show plural Undergoer agreement. Thus the examples (82a) and (82b) above satisfy DeLancey's second ergative characteristic. Example (83) below shows that DeLancey's two ergative characteristics are again satisfied.

- (83)a. Undergoer of Transitive verb:

Dam [elaē ote-lo] zum la.
 people bro.in.law kill-PROSP downstream go
 A U V

People went downstream in order to kill **brother-in-law**.

- b. Actor of Intransitive verb:

Elae *zum* *la*.
 bro.in.law downstream go
 A V
Brother-in-law went downstream.

- c. Actor of Transitive verb:

Vam *la-m* *elaē-t* *bà-t* *ote*.
 crocodile there-ABS bro.in.law-ERG axe-ERG kill
 TOP (U) A INST V
Brother-in-law killed the crocodile with an axe.

- d. Plural Undergoer of a Transitive verb:

Fem *zi* *la-m* *elaē-t* *ae-t*
 banana many there-ABS bro.in.law-ERG bushknife-ERG
 TOP (U) A INST
fikboa-du-me / *vou* *li* / *vahe*.
 cut.down.PL-CONT.PL-SA with come.SA stack.up.PL
 V V V
 Brother-in-law cut down those many bananas, with a bushknife and brought them back and stacked them.

- e. Plural Actor and plural Undergoer:

Fem *zi* *la-m* *abi* *gida-t* *ae-t*
 banana many there-ABS uncle others-ERG bushknife-ERG
 TOP (U) A INST
fikboa-du-me / *vou* *le-du-me* /
 cut.down.PL-CONT.PL-SA with come-CONT.PL-SA
vahe-da.
 stack.up.PL-CONT.PL
Uncle and the others cut down those many bananas with bushknives and (they) brought them back and stacked them up.

The first characteristic of the ergative case-marking system is that the unmarked Undergoer of a transitive clause and the unmarked Actor of an intransitive clause stand in opposition to the marked Actor of a transitive clause. That holds true for example (83). The nominal *elaē* 'brother-in-law' which is Undergoer in (83a) and Actor in (83b) are both in the absolutive case, which has zero marking. In (83a), 'people' is the Actor of both 'kill' in the embedded transitive clause and 'go downstream' in the independent intransitive clause. One might query why the ergative case suffix is not attached to *dam* 'people' since it is the Actor of the transitive verb 'kill'. It will be shown below that it is the verb in the independent clause (which in Bauzi is the last clause which contains a final verb) that affects whether or not the ergative case suffix is used. That would be true for (83a) where 'people' is the Actor of 'go downstream' which is the main intransitive independent clause of the sentence. In (83a), Actor and Undergoer can be disambiguated because of the unmarked word order. That is, the first nominal is Actor and the second nominal is Undergoer, as has been discussed earlier. Thus here is another reason for referring to the case of 'brother-in-law' as Absolutive

when it is Actor of the intransitive verb or Undergoer of the transitive verb and as Ergative when it is the Actor of the transitive verb and receives the *-t* suffix as in (83c).

The second characteristic is that the number agreement in the verb in example (83d) is with the transitive Undergoer 'bananas'. The singular verb stem for 'cut down' is *faito*. Here both the plural verb stem *fikboa* 'cut down many' and the continuative-plural suffix *-da* are used. The verb 'bring' has the singular form which is interesting. The verb phrase for 'bring' is made up of two morphological words: *vou* 'with' and *le* 'come' which literally is translated 'come with'. Bauzi interprets 'bring' as being intransitive and therefore the verb agreement is with the Actor 'brother-in-law' (via zero anaphora), which is not surprising as this is what we would expect if it is treated in the same way as a transitive Undergoer. Example (83e) is contrastive. The verbs 'cut down' and 'stack up' are transitive verbs and agree in number with 'bananas'. The verb 'bring' is interpreted as an intransitive verb and agrees in number with the plural Actor 'uncle and the others'.

Some further examples serve to illustrate what appears to be in Bauzi an ergative case-marking system.

- (84)a. *Vem mum à.*
 dog snake eat
 A U V
 A dog ate a snake.
- b. *Mum bak lab-a fitoo-da.*
 snake ground there-DA slither-CONT
 A LOC V
 A snake was slithering there on the ground.
- c. *Vem mum-at vee-me elo.*
 dog snake-ERG bite-SA die
 U A V V
 A snake bit the dog and (the dog) died.

The nominal *mum* 'snake' as Undergoer of the transitive clause in example (84a) and as Actor of the intransitive clause in (84b) are in the Absolutive case. As Actor of the transitive clause in (84c) it receives the Ergative case suffix *-t*. In order to understand the same actor suffix marking on 'bite' when in fact the subsequent Actor is different, refer to §2.3 above where special rules for the switch-reference marking schema are discussed.

3.2.3 COUNTER-EVIDENCE TO AN ERGATIVE ANALYSIS

Data will now be presented that would seem to go against this analysis. First of all the Absolutive pronouns are not only used as Actors in intransitive clauses. Example (85) exemplifies the use of an Absolutive pronoun as an Actor in a transitive clause.

- (85) *E-m fem faito-i / à-lo.*
 1SG-ABS banana cut.down-SA eat-PROSP
 A U V V
 I am going to cut down bananas and eat them.

Since 'cut down' and 'eat' are transitive verbs, one would expect that the Actor would have the Ergative case suffix *-ho* used for personal pronouns, but instead it has the Absolutive case suffix *-m*.

Also consider the following examples where there seems to be a crisscrossing of the marking system.

- (86)a. *Elae* *fem* *ohu.* TRANSITIVE
bro.in.law banana cook
A U V
Brother-in-law cooked bananas.
- b. *Dam-at* *elae* *ote.* TRANSITIVE
people-ERG bro.in.law kill
A U V
People killed brother-in-law.
- c. *Elae* [*æ* *va-lo*] TRANSITIVE
bro.in.law bushknife take-PROSP
A U V

zum *la.* INTRANSITIVE
downstream go
V
Brother-in-law went downstream [in order to get a bushknife].
- d. *Kohu* *elae-t* *bio-u* / INTRANSITIVE
breadfruit bro.in.law-ERG cross.over-SA
U A V

suto. TRANSITIVE
pick
V
Brother-in-law crossed over (the river) and picked breadfruit.
- e. *Ae* *va-lo* *mode-mu* / TRANSITIVE
bushknife take-PROSP do-because.SA
U V

vahada *zum* *la.* INTRANSITIVE
younger.brother downstream go
A V
Because (he) was going to get a bushknife, **younger brother** went downstream.
- f. *Vaomei-t* *vim* *bio-u* / INTRANSITIVE
Vaomei-ERG upstream cross.over-SA
A V

mei *fem* *ab* *fike-ham.* TRANSITIVE
someone banana INDIC cut.down-REAL.INDIC
U V
Vaomei crossed over in the direction of upstream and cut down someone's banana plants.

g.	Busda	Itabe	vim	le	/	INTRANSITIVE
	Busda	Itabe	upstream	go.SA		
	A	GO		V		
	azi-be	/	e	kogoi	belu	/
	dwel-SA	red.fruit	raft	strike.SA		INTRANSITIVE
	V	U		V		TRANSITIVE
	ab	vou	feaze-ham.			INTRANSITIVE
	INDIC	with	float.down-REAL	INDIC		
	V					

Busda went upstream to Itabe, stayed there a while, gathered a raft full of red fruit, and brought them downstream.

In example (86a) *elae* 'brother-in-law', who is the Actor of a transitive clause, does not have the Ergative case suffix *-t*. According to the standard rules of ergativity, one would expect it to be present. Yet in (86b) where *dam* 'people' is the Actor, the Ergative case marker is present. Both verbs 'cut down' and 'kill' are transitive; one would expect to have Actor marked in both if ergativity is present. Then in (86c) the same nominal *elae* 'brother-in-law' is both the Actor of an embedded transitive clause and the Actor of an intransitive clause. Its form is Absolutive. In (86d) the opposite occurs. The nominal *elae* 'brother-in-law' is marked with the Ergative suffix *-t* and is both the Actor of the intransitive verb 'cross over' and the transitive verb 'pick'. Then in example (86e) *vahada* 'younger brother' is in the Absolutive case but is the Actor of the dependent transitive verb 'take' as well as the intransitive verb 'go downstream'. In (86f) Vaomei is marked with the Ergative suffix and is the Actor for both the intransitive verb 'cross over downstream' and the Actor of the transitive verb 'cut down'. In (86g), the narrator introduces one of the major participants with the proper name 'Busda'. 'Busda' is in the Absolutive form and is the Actor first of two intransitive verbs 'go upstream' and 'stay', then of a transitive verb 'strike', and then of the intransitive verb 'float downstream', howbeit all via zero anaphora.

What is being suggested here is that the primary use of the Ergative case marker is just as has been described thus far. That is, Bauzi case marks the Actor of a transitive verb using an ergative case-marking system. On the surface it appears that it is primarily used to disambiguate the case relations of the two core nominals by indicating which is the Actor. If there is no ambiguity, then the ergative case marking is absent. That is, if unmarked word order is followed, or if the context is clear by the lexical choices made, there is no need to disambiguate. This can be seen in examples (86a) and (86c) above where the unmarked word order is followed. But in (86b), unmarked word order is used yet 'people' has the Ergative case suffix. Since there is potential ambiguity among the core nominals in (86b), the Ergative case suffix is used to indicate which participant is Actor.

- (87)a. **Vem** **mum** à.
 dog snake eat
 A U V
A dog ate a snake.

- b. *Mum vem gia-me / visoi / tolaze.*
 snake dog tie.up-SA pick.up-SA swallow.whole
 A U V V V
 A snake wrapped around a dog and picked (it) up and swallowed (it) whole.
- c. *Ai [am data elo-he-mu] bak-boz ve / noi.*
 father 3SG-GEN child die-DA-CON.because earth-red take.SA rub
 A U V V V
 Father, because his child died, took red clay and rubbed it on (the corpse).

Because word order in example (87a) is unmarked, there is no need to disambiguate the core participants and therefore the Actor of the transitive verb 'eat' is not marked with the Ergative case suffix. The first nominal is the Actor and the second nominal is the Undergoer. Also the verb à 'eat' helps to disambiguate as it is not the correct lexical item to use when indicating the action of a snake (implicit: python) eating another animate Undergoer, be it human or non-human. Notice that in (87b) not only is unmarked word order used, but the lexical choices help to disambiguate what is happening to the core participants. In other words there is no ambiguity as to the identity of Actor and Undergoer of the action represented by the verb 'wrapped/tied up'. In (87c) because the suffix combination *-he-mu* 'because', which also indicates that the next clause will have a different actor, is attached to the verb 'die', one knows that it wasn't 'his child' that 'took red clay' but it was 'father'.

Certain rules can be utilised at this point in the discussion to handle the crisscrossing as was seen in example (86) above.

- Rule (11): If the unmarked word order is used, or if the lexical context is clear in a two-argument transitive clause, usually the Ergative case suffix is absent. Examples (86a) and (86c) exemplify this. If there is ambiguity among the core participants then the Ergative case suffix will be present. Example (86b) exemplifies this.
- Rule (12): If the marked word order is used, where Undergoer is forefronted, then the Ergative case suffix will be present to indicate the Actor of the transitive clause. Example (86d) illustrates this.
- Rule (13): If the main/independent clause of the sentence (in Bauzi this is the final clause) is intransitive, the Ergative case suffix is absent. In effect this says that being the Actor of an embedded dependent transitive clause is ignored in the Bauzi ergative case-marking schema. Examples (86c), (86e) and (86g) show this.
- Rule (14): If the main/independent clause of the sentence is transitive, the Ergative case suffix will be present. That is to say, even if Actor is the core argument of an intransitive clause, this is ignored if the last clause is transitive. Examples (86d) and (86f) exemplify this.

This discussion began with the statement that Bauzi is an Ergative language which marks transitive Actors with Ergative case while marking Undergoers and intransitive Actors with Absolutive case. However, it became apparent that there were still many exceptions. Investigation has resulted in the four supplementary rules above, but these still do not handle all of the exceptions. So now an alternative approach is needed to see if a more complete explanation of the exceptions is possible. That approach is set forth below.

3.2.4 SPLIT ERGATIVITY

Givón (1984:152) states that individual languages are sensitive to how they choose to mark clausal subjects ergatively. But they are not sensitive to “exactly the same sub-components of transitivity, nor do they divide transitive from intransitive at exactly the same point on the various scales of properties which, as a cluster, determine transitivity”. This means (Jones 1986:40) that no two languages “will always treat all intransitive subjects and transitive objects identically in every possible environment, while always marking transitive subjects differently”. Givón (1984:153) goes on to say that “even in the most conspicuous ergative languages where the ergative-absolutive pattern is most widely spread throughout the various grammatical paradigms, it is possible to observe some split patterns”. In the literature when authors speak about mixed case systems, that is, when one finds not only ergative-absolutive features but also nominative-accusative features, the language is said to have “split ergativity”.

Givón (1984:153) summarises in (88) below the parameters of transitivity-related properties along which one might find split ergativity in any given language.

- (88)a. Degree of agent's control or intent:
controlled causation > uncontrolled causation
intended causation > unintended causation
- b. Degree of obviousness/affectedness of the patient:
more obvious patient > less obvious patient
more affected patient > less affected patient
- c. Degree of perfectivity/completeness of the event:
perfective > imperfective
past > future > present
- d. Degree of referentiality/topicality of both agent and patient:
anaphoric pronoun > definite NP > indefinite NP > non-referential NP

After examining other Bauzi data then, it would seem that another analysis might be preferred that would be against claiming Bauzi to be an ergative language. But taking into consideration the notion of split ergativity and applying Givón's “scales of transitivity-related properties” to the data that does not quite fit the primary pattern, the present author suggests that the split found in Bauzi can be explained.

First a definition of “transitivity”. Hopper and Thompson (1980:251) define transitivity as a global property of an entire clause, such that an activity is ‘carried over’ or ‘transferred’ from an agent to a patient. Transitivity...involves at least two participants and an action which is typically effective in some way.

By using some of these parameters of transitivity listed above in example (88), it will be shown that if a clause is higher on any of the scales, then it is more likely to receive ergative-absolutive case marking. On the other hand, if it is lower on the scale, it is more likely to receive a non-ergative coding pattern. In Bauzi the more completed an event is the more likely the undergoer will register the full effect of the action. Therefore since “degree of affectedness of the patient” and “degree of perfectivity” are related and since full noun phrase subjects and objects or pronoun subjects and objects can be either ergative or absolutive, only (88a) and (88c) of the scales suggested by Givón will be applied. The other parameters

that will be considered are taken from Hopper and Thompson (1980:252). It might be added here that although the former statements about Ergativity at the end of §3.2.3 might handle the data considered below, there are those occasions when they do not.

3.2.4.1 AGENCY SCALE

Givón (1984:154) states that

...in all languages, it is only the subjects of transitive clauses – i.e. ones which in some way conform to the prototype of ‘agent controller/deliberate initiator’ – that receive the ergative marking...And clauses with a less agentive subject are less likely to have an ergative subject.

He offers proof that there are languages such as Modern Spoken Tibetan where even intransitive clauses manifest high agency.

Bauzi exhibits the following contrast between the ergative and non-ergative pattern depending on whether focus is on the agent/initiator of the event or on the event itself.

In example (89) below where focus is on Actor as agent, Bauzi has an ergative marking pattern.

- (89)a *Ihe ama-t fo-ada?*
 canoe who-ERG carve-CONT
 U A V
 Who is carving the canoe?
- b. *Dubu-t fo-ada.*
 old.bro-ERG carve-CONT
 A V
 Older brother is carving (it).

Example (89) above shows the standard pattern for marked word order: forefronted Undergoer as Topic requires the Actor to be in Ergative case. The same holds for the reply although the Undergoer has zero reference. But (90) appears in the data as well where the pattern is unmarked word order and the question word ‘who’ still is marked Ergative.

- (90) *Ama-t giomim vamea-dà?*
 who-ERG lies tell-CONT.INT
 A U V
 Who is it that is telling lies?

In example (91) below where focus is on the agentiveness of the single core participant, Bauzi requires the Ergative marking pattern.

- (91)a. *Etei ama-t le-he-la?*
 today who-ERG come-REAL-INTER
 T A V
 Who came today?
- b. *E-ho le-he bak.*
 1SG-ERG come-REAL DECL
 A V
 I came.

When Bauzi speakers of imperative statements want to emphasise the ‘anticipated agent’ of the action entailed in the command thus spoken, the Ergative marking pattern is employed. Examples in (92) show this. (Note that these imperative examples are all extracted from Bauzi letters.)

- (92)a. *O-ho Kaso radio bute-le.*
 2SG-ERG Kaso radio call.out-IMP
 A (GO) V
 (Dave) **you** make radio contact with Kaso radio. (lit. You call to the Kaso radio.)
- b. *O-ho gi i-ba fa lahi sue olu-le.*
 2SG-ERG ATN 1PL-DAT ITR women clothing send-IMP
 A IO (GO) U V
You just send us women’s clothing instead.
- c. *I-m maboe u-ho lab-a a vou azi-mule.*
 1PL-GEN widow 2PL-ERG there-DAT PROH with live-PROH
 U A LOC V
 Don’t **you** live there with our widow.
- d. *Dau o-ho fao-be / minggu vàmtea nusu-me neà-di /*
 Dave 2SG-ERG wait-SA week one sit-SA good-STATIVE.SA
 A V V
tanggal 17 hari Jumat lab-e e-m li va-le.
 date 17 day Friday there-ERG 1SG-ABS come.SA take-IMP
 TIME U V
 Dave, **you** wait and after one week (lit. sit one week) is finished, on the 17th Friday, come and get me.

The more usual pattern for Bauzi imperatives is to have overt Actors that are emphatic or focused. It is the notion of ‘deliberate initiator’ that raises the Actor to ‘agent saliency’. The one uttering these imperative requests sees the recipient as being the one who will make a deliberate attempt to carry out the tasks as requested. In example (92c) it would seem that word order is affecting the choice of Ergative marking, and is not an attempt to give Actor emphasis. Yet in (92a) and (92b) the unmarked order is followed but the Ergative marking is still present.

It should be pointed out that Bauzi does not always have overt Actors in the imperative mode. Example (93) is taken from a narrative text and is an indirect quote.

- (93) *Tuha-t neha a-ba gi [a-m dubu-m fa*
 Tuha-ERG say 3SG-DAT ATN 3SG-GEN old.bro-GEN bone
agute-he bak-e] na vàm-le.
 break-REAL NOM-ERG thing give-IMP
 Tuha said to just give him things (Implied: instead of him hurting someone in revenge) [for (someone) having broken his older brother’s arm].

In the text prior to (94) below, most people fear retribution so have fled the village, leaving a dead man unburied. One man, who was left alone with a few women, was annoyed that everyone was leaving the burial job for him to do alone. So he says what appears in (94)

below. In this instance the unfocused Actor of an imperative clause is in Absolutive case rather than Ergative.

- (94) *E-ho gago "Làhà duta u-m ahebu la-le".*
 1SG-ERG say in.that.case women 2PL-ABS all go-IMP
 I said "In that case, all of you women go (as well)".

3.2.4.2 PERFECTIVITY SCALE

Here the split is conditioned by status and aspect.

The more completed an event is, the more likely it is that the patient in fact registers to the full the effects of the action. The more successfully completed the event is, the more likely it is that the agent was in fact a deliberate, direct, effective cause of that successful completion." (Givón 1984:157)

In (95) below the action is progressive/continuative and the case marking is not Ergative:

- (95) ...**dam** fo nemahu-si / ab vuusu-ala-ham.
 people arrow be.weak-SA INDIC hold.onto-CONT-REAL.INDIC
 A U V V
 ...the **men** were holding onto their arrows without having them [the bows] drawn.

Example (95) above is taken from a text where a group of men (Group 1) are on the trail trying to catch up with a group of murderers. Another party of men (Group 2) in the meantime have been sent off to call these latter ones back as the village has had second thoughts about getting involved. So as Group 2 approaches the area where Group 1 is, Group 1 is waiting in ambush thinking that Group 2 are the murderers; they have their bows drawn. But once they discovered who Group 2 was, they relaxed. In Bauzi discourse, situations that are static, that is where no change is taking place, do not require Ergative marking. In (95) there is no effort being extended in 'they were holding onto their arrows...'. Also this is off the event line of the story, that is it does not move the story toward a climax.

The action indicated by the Bauzi speech verbs 'say', 'tell', and 'call' and verbs which indicate speech like 'prohibit', 'dispute', and 'console' are interpreted as completed action and are realis mode. This is demonstrated in example (98) below by the quote closure which uses the deictic *laha* 'given' inflected with the same actor suffix *-me* which normally occurs on verbs. This could be translated 'like that having said'. These speech verbs are transitive and their contents, that is what is said, are considered the Undergoer. Therefore the noun phrase which has the role of Speaker in the quote margin is always marked with the Ergative case suffix. Examples (96) to (99) below exemplify this claim.

- (96) *E-ho dam bake bute-me / dam ahebu ab*
 1SG-ERG people to call.out-SA people all INDIC
 SPK ADD V A V
le-ham.
 come-REAL.INDIC
 I called to the people and all the people came.

- (97) *Làhàmu i-ho ab ot gago-i-da-mam, //*
 CON 1PL-ERG INDIC RCP speak-ITR-CONT-IRR.INDIC
 SPK V

"Na la-m meb dae aii-dà-o?"
 thing there-ABS cry words hear-CONT.REAL-INTER
 TOP (U) U V

Therefore **we** were saying to each other, "Is that crying we are hearing?"

- (98) *Laha-me gago-hemu / i-ho Itbulu-ti ab*
 like.that-SA say-because.DA 1PL-ERG Itbulu-and INDIC
 CON V SPK V

male-ham. // "Vabà! // *I-m akati [dam*
 be.against-REAL.INDIC NEG 1PL-ABS how.come people
 A U

amu-dà-t mee-da-m bak] fa mode-lo mode-la."
 earlier-PTS-ERG do-CONT-IRR NOM ITR do-PROSP do-INTER
 V

Because (they) spoke like that, **Itbulu and we** were against it. "No way! Why are **we** going to repeat doing [what our ancestors did]."

- (99) *Làhàmu Auna-t gago, / "Koai akati bisi bak*
 CON Auna-ERG say corpse how.come so place
 SPK V U GO-LOC

bohu bak-e vou vim le esu-he-la?"
 far place-DAT with upstream go.SA put-REAL-INTER
 V V

Therefore **Auna** said, "Why are (you) taking the corpse so far upstream and putting it down?"

Bauzi verbs that are inflected with the prospective aspect suffix *-lo* usually are low in transitivity and therefore will not follow the Ergative case marking schema, whereas verbs inflected with the completive aspect do. The openings from two Bauzi epistolary texts in example (100) below exemplify this claim.

- (100)a. *E-m Isak-am dae o-ba toe-me / olu-lo.*
 1SG-ABS Isak-GEN words 2SG-DAT write-SA send-PROSP
 A U IO (R) V V

I am writing (going to write) and sending Isak's words

- b. *E-ho Yakobus-at sunit o-ba lo-ho.*
 1SG-ERG Yakobus-ERG paper 2SG-DAT give-COMP
 A U IO (R) V

I Yakobus have given this letter to you.

It is interesting to note the authors' perspective when they wrote the above letters. One wrote from the perspective that the letter was in the hand of the addressee and he/she had received it at the time of the writing, the one with the completive aspect in example (100b). The other one wrote from the perspective of the present time of writing, the one with the

prospective aspect in (100a). Two more examples, one taken from a prayer and another one from a letter, are given in (101).

(101)a. *Dau etei dae debu vahoke-lo.*

Dau today words source teach-PROSP

A T U V

Today **Dau is going** to teach literacy.

b. *Labi ame duta la-m a-m ai-at fa*
like.that b.m. woman there-ABS 3SG-GEN father-ERG ITR

vi ve vou ita-ho.

DIR take.SA with flee-COMP

That before-mentioned woman's **father has taken** her back (away from her husband) and (he) has **fled** with her.

In example (101a) above the person who was praying was informing his deity of the plans of his teacher for the day. His teacher Dau had not as yet successfully completed the event of 'teaching literacy'. Therefore the Ergative suffix is absent from the nominal 'Dau', whereas the author of the letter in (101b) was informing his recipient that the woman in question had indeed been taken back by her father and that both of them had fled. Because the Actor was deliberate and effective in producing a successful completion of an event, the Ergative marking suffix is present.

In Bauzi even if events are not carried all the way out to completion, that is, if they are just attempted, normally the Ergative case-marking schema is invoked. This is shown in example (102) below where the conative aspect -so is suffixed to verbs.

(102)a. *Làhàmu dam-at lab-a do-so-me ki-ha / usa-i /*
CON people-ERG there-DAT shoot-CNT-SA draw-DA get.up-SA
A DAT V V

neo feu ahu-et-ba-so laba ab nusu-ham.
next fly tree.type-leaf-CL.flat-CL.stick there-DAT INDIC sit-REAL.INDIC
V DAT V

Therefore **people tried** to shoot there, but when (they) had drawn their bows, (the bird) arose and next sat down on a ahu leaf stem.

b. *Labi e-ho baule-so-me mode-ha / Danea-t nib-e*
like.that 1SG-ERG bury-CNT-SA do-DA Danea-ERG here-ERG
A V SPK

dum gago... /
across say
V

And so **I attempted** to bury him, but when (I) did, Danea called out across the way...

c. *...e-m utaa-so-bu-t ab belu /*
1SG-ABS tree.branch-CL.stick-CL.big-ERG INDIC strike.SA
U CAUSER V

<i>e-m</i>	<i>abo</i>	<i>elo-so-me</i>	<i>mode-ha</i>	<i>vaba-mu</i>	<i>fat</i>
1SG-ABS	really	die-CNT-SA	do-DA	discontinue-SA	ITR
A	V				

ahe-de-ha.

exist-STATIVE-COMP

...a tree branch hit me and I **almost** died but got well.

In examples (102a) and (102b) above, both the actions of ‘drawing the bows’ and ‘burying’ were attempted and partially completed, but then abruptly stopped, whereas in (102c) ‘dying’ cannot be thought of as partially completed; that is, you either die or you don’t. Once again the Ergative case-marking system is followed for (102a) and (102b), but not in (102c) where the Actor is seen as not being very effective in completing any action.

3.2.4.3 AFFIRMATION PARAMETER

Clauses that relate things in the affirmative mode and indicate realis status are also high in transitivity and will normally require the Ergative case-marking pattern, whereas static situations in the negative mode are low in transitivity will not require it. This comparison is shown in example (103) below.

(103)a. *Ame obat la-m e-ho a-hà bak.*
 that medicine there-ABS 1SG-ERG eat-REAL DECL
 U A V
 As for that medicine, I ate it.

b. *[Dam-at ili-hi bak] i-m vabi-le-ha.*
 people-ERG flee-REAL NOM 1PL-ABS not.know-ICP-COMP
 TOP (U) A V
 We don't know [the place to which the people have fled].

In example (103a) above the realis status is indicated as well as the declarative mode. Therefore the pronoun is from the Ergative *-ho* set. In §3.2.4.2 above it was argued that the completive aspect would require Ergative marking, yet (103b) above has the completive aspect and the marking pattern is non-Ergative. However, one needs to recognise that ‘we don’t know’ is a static situation; that is, no change is indicated. This statement is off the event line in the narrative text in which it appears. Therefore at this point it would seem necessary to adjust the statement made in §3.2.4.2 by saying that, even though the aspect may be completive, there must be evidence of change indicating a dynamic situation for the Ergative case to be invoked.

In (104) below are three examples. Examples (104a) and (104b) are taken from epistolary genre discourse and (104c) comes from a narrative discourse. All three are in the negative mode however, one is more highly transitive than the others and requires Ergative case marking.

(104)a. *O-m* *abo* *dam* *mei* *mode-m* *kai*.
2-ABS really people IDF do-IRR NEG
You are not just any person.

- b. *Labi* [o-ho ve vou id-da-m-na]
 like.that 2SG-ERG take.SA with sleep-CONT-IRR-PTS
o-m e-ba doi lu olu-m kai.
 2SG-ABS 1SG-DAT money give.SA send-IRR NEG
 You haven't sent me any money for [(the string bag) which you took and slept with]. (Implied: he is not just borrowing it, he is keeping it.)
- c. *E-ho lab-e neha, "Doho i-ho do-u*
 1SG-ERG there-ERG say pig 1PL-ERG shoot-SA
à-hà va-bak".
 eat-REAL NEG-DECL
 I said, "We definitely did not shoot and eat the pig".

When comparing all three of the above examples, (104a) and (104b) are static situations. Example (104a) is an equative clause and the irrealis status suffix occurs on the verb. Equative clauses always represent static situations and as such do not require the Ergative marking pattern. The situation is static as well in (104b) and the status indicator is irrealis again. One could say that the situation still exists that the author of the letter doesn't have any payment for the string bag that he has already given to the recipient of the letter. Nothing has changed; no successful completing of any event has been realised. Therefore the Absolutive pronoun appears instead of the Ergative. In example (104c) the negative declarative modality is employed as well as the realis status indicator. This makes for high transitivity and the Ergative pronoun is therefore required.

In example (105) below the Absolutive pronoun is used as the Actor of the transitive verb 'give'. Negation indicates that the action was not completed. So this would be all the way over on the right of the perfectivity scale which invokes a non-Ergative marking pattern.

- (105) *E-m ba dam ili-hi-da lab-a na modi /*
 1SG-ABS later people flee-REAL-PTS there-DAT thing do.SA
 A IO U V
a vi lo-m kaio.
 secretly DIR give-IRR NEG
 V

I have not prepared food and secretly given it to the ones who have fled away.

In sentences expressing prohibition and in interrogative statements which use the desiderative aspect, Actors do not take the Ergative case-marking suffix, whereas sentences in the declarative mode do. The case suffixes on the Actor of the intransitive verb 'to fight' are contrasted below in example (106).

- (106)a. *Aefike-hat gago, "Ne i-m akati dam debu ahim*
 Aefike-ERG say CON 1PL-ABS how.come people group two
 SPK V A
bohude-lo mode-la?" //
 fight-PROSP do-INTER
 V
 Aefike said, "What is the big idea that we being two different people groups are going to fight?"

The statement was made above that when the undergoer is either particularised or made definite, the marked word order is usually chosen. However examples like (107) and (108) indicate that some exceptions should be made to the foregone statement.

- (109) ...*i-ho ame koai la-m viso-i vou la-ha* /
 1PL-ERG b.m. corpse there-ABS pick.up-SA with go-DA
 A U V A

<i>dam</i>	<i>koai</i>	<i>num</i>	<i>lada</i>	<i>lab-a</i>	<i>esu-m</i>	<i>kai.</i>
people	corpse	house	particular	there-DAT	put-IRR	NEG
II				V		

...we picked up **that before-mentioned corpse** and were taking it away when the people (decided) not to put it there in that particular house (where we talked about putting it).

In example (109) above the Undergoer is highly individuated, the Actor is the Ergative pronoun *iho* 'we', and yet the usual word order is followed. This seems to indicate that the statement which says that Actors of highly perfective events receive Ergative marking should be applied first before the statement about individuation. The Actor represented by 'we' did in fact pick the corpse up and walked toward the intended destination. In the second clause of (109) the usual word order is used, and the Undergoer is not highly individuated; that fits with what has already been stated at the beginning of this section. The event in the second clause was not carried through to completion. (See under §3.2.4.3.) Therefore Absolutive marking is used.

It can be seen in example (110) below that Rule (14) in §3.2.3 above ('if the main clause of the sentence is transitive, the Ergative case suffix will be present...' (or vice versa)) is applied before the statement that is made here concerning individuation.

- (110) ...*dam* [*ame data mum-at vee-he-na*] *la-m*
 people b.m. child snake-ERG bite-REAL-PTS there-ABS
 A U

<i>ihe-ba</i>	<i>esu</i>	/	<i>tuena</i>	<i>bake</i>	<i>vou</i>	<i>vim</i>
canoe-CL.flat	put		foreigner	to	with	DIR
V						V

le-so-me *mode-ha* / *fisiva-he-mu* / *fa*
come-CNT-SA do-DA die-DA-because ITR
 V V

you zitu / you le-du-me / hangar obe
with climb.up with come-CONT-SA hangar edge
V

<i>lab-a</i>	<i>i-m-ti</i>	<i>ab</i>	<i>ot</i>	<i>tahi-a-ham.</i>
there-DAT	1PL-ABS-and A (coordinate)	INDIC V	RCP	meet-ITR-REAL.INDIC

...people had put that **[before-mentioned child that the snake had bitten]** into a canoe and when (they) attempted to take (her) to the foreigners, (she) died, so (they) climbed back up to shore with (her) and were bringing (her) (when) (they) and we met up with each other at the edge of the hangar.

Even though the Undergoer of example (110) above is highly individuated, the usual word order is used. The Actor has Absolutive marking as a result of it being a coordinate Actor with the Actor of the main clause which is intransitive 'meet each other'. Within its own clause the rule stated here about marked order is followed. The Undergoer which is particularised ('that before-mentioned child') is forefronted and 'snake' receives the ergative marker.

3.2.4.5 SUMMARY

In §3.2.4, split ergativity in Bauzi was defined along lines of transitivity. There we saw that the more involved the Actor was in being a deliberate initiator of an event, the more likely the Ergative marking pattern would be invoked. Next we looked at status and aspect and discovered that the more completed an event was, the more likely the Undergoer was to receive the full effects of the action. We also saw that the more successfully completed the event was, the more likely the Actor was to be the deliberate and effective cause of it, and in those cases the Ergative marking pattern was followed. Then we looked at how Bauzi individuates the Undergoer and places it at the beginning of the sentence, thus defocusing the Actor and marking it Ergative case. Yet at the same time there appeared the need to order these statements. That is, we saw that the statement about perfectivity had to be applied before considering individuation (example (109)). The rule concerning whether the main clause of the sentence is transitive or intransitive had to be considered before individuation.

Instead of saying that Bauzi has four splits along the semantic lines thus summarised above, a general statement can be made at this point in the analysis that will cover all four of these splits. That statement is this: When the Actor, the action and the Undergoer are definite then the Ergative marking pattern is followed. Actions that are completive are more definite than actions that are proposed; actions that are in the affirmative mode are more definite than those in the negative mode. An Actor performing a highly individuated action on an Undergoer makes for a more definite situation than one in which the Undergoer is left in its own background and unseparated from it.

3.2.5 ERGATIVITY IN DISCOURSE

Having described split ergativity in Bauzi I now propose to describe this split from the discourse point of view. It can be summarised: In Bauzi, noun phrases functioning as Actors which refer to dominant participants from whose point of view the discourse is being related are normally marked with the Ergative suffix. These are the highly 'agentive' noun phrases. Noun phrases referring to other participants not in dominant roles are in the Absolutive case. This is especially true at every pivotal point in the discourse, that is at every point where the story changes direction.

The text entitled 'The death of Auna's daughter' is used to support the above claim. This text recounts the events surrounding the death of a girl because of snake bite. See Chart 1. The full text appears in Appendix C.

CHART 1: PIVOTAL POINTS IN TEXT 'THE DEATH OF AUNA'S DAUGHTER'

Pivotal	Grammatical Signal	Dominant Participant Reference	Action Reference	Non-Dominant	Action
Pivotal 1	<i>Làhàmu</i> therefore	<i>i-ho</i> we	said “.”		
Pivotal 2	<i>-ha</i> DA			<i>dam</i> people	take corpse away, bring back
Pivotal 3	<i>-ha</i> DA	<i>dam-at</i> people	holding onto mother, father		
Pivotal 4	<i>Làhàmu</i> therefore	<i>i-ho</i> we	brought corpse put down		
Pivotal 5	<i>Làhàmu</i> therefore	<i>Itbulu-hat</i> Itbulu	say “Let's put corpse in Lobio's cook house.”		
Pivotal 6	<i>-hemu</i> because	<i>i-ho</i> we	started to take it away		
Pivotal 7	<i>-ha</i> DA			<i>dam</i> people	didn't put corpse there, put in Kao's house
Pivotal 8	<i>Làhàmu</i> therefore	<i>Auna-t</i> Auna	say “Why put so far away.”		
Pivotal 9	<i>-hemu</i> because		put in Lobio's house		
Pivotal 10	<i>-hemu</i> because	<i>Paulus-at</i> Paulus	say “Let's call on the spirits”		
Pivotal 11	<i>-hemu</i> because	<i>I-ho</i> <i>Itbulu-ti</i> Itbulu and us	against “no way”		
Pivotal 12	<i>-ha</i> DA	<i>Paulus aho</i> Paulus, he	won out		
Pivotal 13	<i>-hit</i> until	<i>bume lab-e</i> that bird	flew in and sat on tree branch		
Pivotal 14	<i>Làhàmu</i> therefore	<i>dam-at</i> people	attempted to shoot		
Pivotal 15	<i>-ha</i> DA	(bird)	became a ground kuskus		
Pivotal 16	<i>Làhàmu</i> therefore	<i>dam-at</i> people	shooting		
Pivotal 17	<i>Làhàmu</i> therefore	<i>Beilo Wem-at</i> Dani Wem	shot it		
Pivotal 18	<i>Labi</i> then			<i>dam ahebu</i> all people	shot it. brought it back

Pivotal	Grammatical Signal	Dominant Participant Reference	Action Reference	Non-Dominant	Action
Pivotal 19	<i>Labi</i> then	<i>dam totbaho</i> <i>lab-e</i> other people	say "Let's cook and eat it"		
Pivotal 20	<i>-hat</i> DA	<i>i-ho dam</i> <i>totbaho lab-e</i> we other people	say "No way."		
Pivotal 21	<i>-hàmu</i> because	<i>dam-at</i> people	gathered wood to make casket		
Pivotal 22	<i>Làhàmu</i> therefore	<i>dam totbaho-t</i> other people	say "No way. Use a canoe."		
Pivotal 23	<i>-ha</i> DA	<i>dam totbaho-t</i> other people	won out		
Pivotal 24	<i>Labi</i> then	<i>Beilo-t</i> Danis	cut wood crooked		
Pivotal 25	<i>-ha</i> DA	<i>e-ho</i> I	measured it with tape measure		
Pivotal 26	<i>Làhàmu</i> therefore		returned		
Pivotal 27	<i>-hadilabe</i> at that time	<i>dam lab-e</i> people	finished casket and buried corpse		

In Chart 1 the numbered 'pivotal' stand for places where the story changes direction. The chart is to be read in this manner. Pivotal 1 is indicated with the grammatical connective *làhàmu* 'therefore'. The story changes direction at this point. Prior to this pivotal, in the setting of the story, the narrator brings himself and two other characters, Omtovasea and Aamsu, onto the stage. These Actors are not in the Ergative case but in the Absolutive case. After they are introduced they are 'going downstream' when they hear crying in the distance. The 'hearing of people crying in the distance' is the pivotal point which prompts them to run to the scene. Because the story at this point is told from their viewpoint and because they are dominant, the Ergative pronoun *iho* 'we' is used.

Chart 1 shows that in almost every instance where a participant becomes dominant and the story is told from his viewpoint, the noun phrase referring to him has the Ergative marking, and it follows either the different actor suffix *-ha*, the interclausal causal suffix *-mu* or the sentence connector *làhàmu*. The non-dominant participant in the 'Non-Dominant' column has Absolutive case marking. The actions of these non-dominant participants don't really move the story along. In one case, the group referred to with *dam* takes the snakebite victim to the clinic, but she dies en route. The next time this group is referred to it is with the comment about them not putting the corpse down in the right place. At another point in the story when Paulus made his proposal to call on the spirits, the narrator relates that Paulus won the argument and *dam ahebu* 'all the people' carried the corpse down to the beach. Again it is the individual Paulus that is dominant and the narrator indicates this by using the Ergative case pronoun *aho* while referring to the people in the Absolutive case. Later when the rodent is shot by Wem, there is another comment about *damahebu* 'all the people' shooting the rodent

as well. But the dominant participant is the individual Wem and he is the one marked with the Ergative case suffix.

4. BAUZI CASE MARKING FOR PERIPHERAL PARTICIPANTS

As defined by Foley (1986:98), “the peripheral case relations are those associated with the adjuncts or props of the action, such as secondary causes of the action or manipulated Undergoers used as instruments, as well as those of the locational or temporal coordinates of the action.”

According to Foley (1986:100), the simplest case-marking system of the peripheral case relations is one in which all peripheral nominals are case-marked identically. From the undifferentiated system, binary systems develop in three ways. Those where the allative contrasts with all others; those where instrumental, causal and ablative contrast with locative and allative; those where instrumental and causal contrast with ablative, locative and allative. Bauzi has a binary system where only Ergative and Dative have separate case forms. Table 2 below includes a portion of what has already been shown in Table 1 above under §3.1 although in a different format. Except for the postposition *bake*, all the case morphemes are enclitics.

TABLE 2: BAUZI PERIPHERAL CASE-MARKING ENCLITICS AND POSTPOSITION

CASE	ROLES	SUFFIX/ POSTPOSITION ALLOMORPHS
ERGATIVE:	INSTRUMENT CAUSER MANNER PATH SOURCE/ABLATIVE	~ -Vt -t ~ -e
DATIVE:	LOCATION GOAL ADDRESSEE RECIPIENT BENEFICIARY	~ -e ~ -o ~ -a ~ -/- ~ -te ~ <i>bake</i>

4.1 THE ERGATIVE CASE SUFFIX: -t

The roles of Instrument, Causer, Manner, Path and Source/Ablative are case-marked identically. Each of these four roles will be described now.

4.1.1 INSTRUMENT

As has already been discussed in §3.2.2 above, the noun phrase in the function of Actor in a transitive clause has the Ergative case suffix -t, the same case suffix as for the role of

Instrument which is under discussion here. That is to say, the case marker which marks Instrument, which is a peripheral case marker, extends to the Actor, which represents a core participant. This gives rise to an Ergative case-marking schema. This is not surprising as one can see that both of these are causes of an event. The Ergative case is used to identify the prop (instrument) that is being manipulated by the Actor as Agent to bring about a change of state in the Undergoer as Patient. Examples (111) and (112) review where *-t* marks Ergative case. These are with marked word order: Undergoer is forefronted, so the Ergative case marker *-t* signals Actor.

- (111) *E-m dubu-t do-lo fote.*
 1SG-ABS old.bro-ERG shoot-PROSP pass.by
 U A V
Older brother almost shot me.

- (112) *Oata Toali-t ote.*
 Oata Toali-ERG kill
 U A V
Toali killed Oata.

The Ergative *-t* suffix always occurs on any noun phrase that serves as a prop that the Actor as Agent manipulates to bring about a change of state in the Undergoer as Patient. So as well as signalling Actor, *-t* also signals Instrument as in example (113) below:

- (113) *Da la-m utoho lab-a doho bá-t ote.*
 man that-ABS garden there-DAT pig axe-ERG kill
 A LOC U INST V
 The man killed the pig there in the garden with an axe.

In (113) above the Actor does not have the Ergative case suffix. One must recall that the rule states that if the unmarked word order is used, or if the lexical context is clear in a two argument transitive clause, usually the Ergative case suffix is absent. If there is ambiguity because of the lexical choice then the Ergative case suffix will be present. Notice how this rule is exemplified once more in example (114) below where the word order is marked and both the Actor and the Instrument have the Ergative *-t* suffix.

- (114) *Doho la-m dam-at utoho lab-a bà-t ote.*
 pig that-ABS people-ERG garden there-DAT axe-ERG kill
 TOP (U) A LOC INST V
People killed that pig in the garden there with an axe.

4.1.2 CAUSER

The *-t* marks the relation of an uncontrolled and unmanipulated entity bringing about a change of state in the Undergoer as Patient. Perhaps in the Bauzi mind this is identified with the role of Instrument. Chafe (1970:109) calls this role "potent": "There seem to be some nouns however which are not animate, but which nevertheless occur as agents". Examples (115) and (116) illustrate this role.

- (115) *...na abilàha-na-t gi fa e-ba vàlu/*
 thing spirit-PTS-ERG just ITR 1SG-DAT accuse.SA
 A R V

e-m utaa-so-bu-t belu / abo
 1SG-ABS tree.branch-CL.stick-CL.big-ERG strike.SA really
 P CAUSER V

elo-so-me mode-ha vabamu / fat ahe-de-ha.
 die-PROSP-SA do-DA discontinue.SA ITR exist-ICP-COMP
 V V

...some spirit accused me and as a result a **big tree branch** hit me and (I) was about to die but then (I) became better.

In this example the 'tree branch' is seen to be the uncontrolled entity that causes the Undergoer as Patient almost to die. It was not a human that picked up the tree branch and hit him with it. The Undergoer is represented by a first person pronoun with the Absolutive case suffix for pronouns. Pronouns and how they are marked for case will be discussed under §5 below.

Another example of the role of Causer is (116).

(116) *Lahi zu-bu-li / adate-le-m-di*
 women stomach-CL.big-ICP.SA child-ICP-IRR-when.SA
 A V V

dam iba-t modi adate-le-m bak.
 men semen-ERG cause.SA child-ICP-IRR DECL
 CAUSER V

Regarding the time when women become pregnant with fetuses – it is **man's semen** that causes them to become with fetuses.

In this example a comment is made about the topic: 'women becoming pregnant with fetuses developing within them'. 'Semen' is seen to be the unmanipulated inanimate entity that causes the fetuses to be formed.

The suffix *-t* on common nouns that mark the role of Causer and the suffix *-e* on clause nominaliser *bak* that marks the role (or relationship) of reason are both allomorphs of the Ergative case suffix. A rare form *-et* (perhaps a double Ergative *-e-t*) that may be suffixed to clause nominaliser *bak* seems to mark the role (or relation) of cause more than that of reason. In example (117) below the sentences are contrastive.

(117)a. *Eli a-m [dam-at bohude-m dae dihasi aii*
 Eli 3SG-ABS people-ERG fight-GEN words day hear
 TOP A

dihasi aii labiha-da-m bak]-e vanama-i mo-ho.
 day hear like.that-CONT-IRR NOM-ERG tire-SA not.want-COMP
 V

Because he [hears the people argue day after day], Eli is tired of it and no longer (wants to teach the people).

b. *Eli a-m dam-at bohude-m dae dihasi aii dihasi aii*
 Eli 3SG-ABS people-ERG fight-GEN words day hear day hear
 TOP A

[labiha-da-m bak]-e-t modi vanama-i mo-ho.
 like.that-CONT-IRR NOM-ERG-ERG cause.SA tire-SA not.want-COMP
 [Hearing the people arguing day after day] has caused Eli to become tired and
 (he) no longer (wants to teach the people).

In (117a) above the Ergative case marker on the nominaliser *bak* indicates the source of Eli's 'tiredness' whereas in (117b) the Ergative case suffix *-et*, which is an allomorph along with *-at* of *-t* on monosyllabic roots, together with *modi* 'to cause' makes the whole embedded clause function as the Actor or Causer of Eli's not wanting to teach any longer.

Example (118) below shows the allomorph *-et* attached to the demonstrative *lab* 'there', 'that'. The demonstrative in (118) is modifying a nominal which functions in the role of Causer.

- (118) *Labi e-ho neha, "[E-m ba elo-m-di] /*
 like.that 1SG-ERG say 1SG-ABS later die-IRR-at.time.of
 SPK V T
- o-ho ba e-m dek la-m o-ho*
 2SG-ERG later 1SG-ABS string.bag there-ABS 2SG-ERG
- teo va-meam / [e-m elo-m-di] o-ho*
 temporarily take-COND 1SG-ABS die-IRR-at.time.of 2SG-ERG
 A
- ba li / na va-m kai. // Dek lab-e-t*
 later come.SA thing take-IRR NEG string.bag there-ERG-ERG
 TIME V U V CAUSE
- ab fai-de-lo mode-mam.*
 INDIC bad-STATIVE-PROSP do-IRR.INDIC
 V
- I say, "[When I later die], if you take my string bag and don't pay me for it, then [when I die], you later cannot come and claim any inheritance. **Because of the string bag**, (that situation) has been ruined."

Example (118) is taken from a Bauzi authored letter. The Ergative case marker indicates that the one thing that is causing bad feelings between the author and the recipient is 'not having paid for the string bag'. So 'the string bag' is seen as the direct Causer of the situation where there will be no inheritance for the addressee in the future.

4.1.3 MANNER

The *-t* suffixed to a nominal marks the manner in how an action was carried out.

- (119)a. *E-m doho digehi-t nohubak-e la-lo.*
 1SG-ABS pig bow-ERG jungle-DAT go-PROSP
 A U MANNER GO V
 I am going to go pig hunting **with a bow**.

- b. *E-m doho vem-et nohubak-e la-lo.*
 1SG-ABS pig dog-ERG jungle-DAT go-PROSP
 A U MANNER GO V
 I am going to go pig hunting **with a dog**.

In example (119) above two of the ways that Bauzi hunt pigs are described. One method is to take only your bow along. This is indicated by the Ergative case suffix *-t*, attached to 'bow'. The other method is to take your dogs along as well. If you take your dogs along, that doesn't mean the dog is the instrument that kills the pigs. The dog is used to track down and corner the pigs so that the hunter can shoot them with his bow. The lexical choice for indicating *dige* 'bow' as instrument would be the verb *do* 'shoot'. However, what was said for the role of Causer can be said as well for this role. To the Bauzi mind, Causer (Potent), Instrument and Manner merge. They are not case-marked differently. Another example showing manner is found in example (120) below.

- (120) *Kali a-m fa agute-hemu au vantea-t vou*
 cousin 3SG-GEN bone break-because hand one-ERG with
 A MANNER V
vabeo-te.
 chase.while.hitting-ITR.
 Because cousin broke his arm, (he) used his **one hand** in chasing after (her)
 hitting (her).

4.1.4 PATH

The *-t* on a nominal or question word or demonstrative indicates the path that was taken to get to a specific goal.

- (121)a. *O-m zie adida-t la-lo mode-la?*
 2SG-ABS path which-ERG go-PROSP do-INTER
 A PATH V
What path are you taking?
- b. *E-m zie [Muà la-m-dà]-t la-lo mode-m bak.*
 1SG-ABS path Muà go-IRR-PTS-ERG go-PROSP do-IRR DECL
 A PATH V
 I am going **via the Muà (River) path** (or: via the path [which one takes on the Muà River]).
- (122) *Dubu Tovao lab-et le.*
 old.bro Tovao there-ERG come.
 A PATH V
 Older brother came **from** (i.e. via, by way of) **Tovao**.

4.2 ABLATIVE ROLES MARKED BY *-e*

The Ergative case expresses two Ablative roles: the place or entity from which the action proceeds. In Bauzi the morpheme *-e* attached to the demonstratives *lab* 'there' and *nib* 'here' signals these Ablative roles. These two semantic roles are those of Source (S) and Speaker (SPK). Examples (123) to (127) illustrate these roles.

- (123) *Da la-m Noi-adi lab-e nib-a le.*
 man there-ABS Noi-fork there-ABL here-DAT come
 A S LOC V
 That man came **from Noiadi** to here.
- (124) *Vahada [dam-at ti fe-à-da-m bak] lab-e*
 young.bro people-ERG sago pound-ITR-CONT-IRR NOM there-ABL
 A S
le-he bak.
 come-REAL DECL
 V
 Younger brother came **from [(the place) where the people were
 pounding sago]**.
- (125) *Kali Esi-m doho fiho num nib-e vim*
 cousin Esi-GEN pig domesticated house here-ABL DIR.upstreams
 V S V
bio-u / ut sie-da.
 cross.over-SA trees fell.PL-CONT
 U V
 Cousin crossed over upstream **from Esi's domesticated pig house here**
 and is clearing the trees (for a garden).
- (126) *[Ala fauha-le-da-m bak] ni-m asum iub-e nom*
 sun white-ICP-CONT-IRR NOM here-ABS sky there-ABL down
 TOP-A S V
fauha-le-da-m bak.
 white-ICP-CONT-IRR DECL
 [The brightening of the sun] is shining down **from the sky**.
- (127) *Nà-t nib-e gago, "I-mo ti fe-se".*
 sister-ERG here-ABL say 1PL-SUBJ sago pound-SUBJ
 A (SPK) V
Sister said, "Let's go pound sago".

In example (127) above the speech is seen as originating with the speaker and flows from the speaker to the recipient.

4.3 DATIVE ROLES MARKED BY -a

The Dative (DAT) case suffix *-a* in Bauzi marks both the place or entity at which the action occurs (LOCation at) and the place or entity toward which an action moves (GOal).

There are many allomorphs of the Dative case suffix *-a* on common nouns. The majority take *-a* itself, but an irregular minority take one of *-e*, *-o*, *-i*, vowel fusion, zero or an infix *-l-*. Examples are given in Appendix D.

4.3.1 LOCATION

Examples (128) to (130) show the Dative case indicating the role of Location.

- (128) *Da la-m mum-a iedi / lab-a le tat*
 man there-ABS snake-DAT be.afraid.STATIVE there-DAT go.SA grass
 A LOC V GO V

vie-m moh.

cut-IRR refuse

V

The man is scared **of snakes** and doesn't want to go there and cut the grass.

- (129) *Oi mum utaa-ba lab-a aa-me esmo.*
 mother snake branch-CL.flat there-DAT see-SA leave
 A U LOC V

Mother saw the snake **on the tree branch there** and left it there. (*Implied: she didn't kill it*)

- (130) *Dubu faki nohubak-e aida.*
 old.bro. angry.SA jungle-DAT stay
 Older brother is angry and is staying **in the jungle**.

When a location is individuated, its nominal reference will normally be followed by a demonstrative. Compare examples (128) and (129) above. In (128) the man's fear is directed at snakes in general, whereas in (129) the speaker had a specific snake in mind and thus the demonstrative *lab-a* has been used.

4.3.2 ENTITIES TOWARD WHICH ACTION IS DIRECTED

Not only does the Dative case suffix *-a* signal the role of location, it also expresses the place or entity toward which an action moves. There are at least four roles that are involved here: Goal, Addressee, Recipient and Beneficiary. And there are at least four ways that this case is signalled: by the suffix *-a*, which is usually affixed to a demonstrative and some common nouns; by the postposition *bake* 'to/for', which follows human nouns, kin terms and place names; the suffix *-te* which follows the particulariser *-da*; and the suffix *-ba*, which occurs on the personal pronoun stems. These are illustrated below.

Goal:

- (131) *Kali doho ote-me / doho iso vaito-i / vem-e esu.*
 cousin pig kill-SA pig tongue cut.off-SA dog-DAT put.down
 A U V U V LOC V
 Cousin killed a pig and cut off its tongue and gave it **to** the dog (lit. placed it at the dog).
- (132) *Esi iub-a vim la.*
 Esi there-DAT DIR.upstream go
 A GO V
 Esi went upstream **to there**.

- (133) *Em Noi-adi-a fesao-t la-lo.*
 1SG-ABS Noi-fork-DAT aeroplane-ERG go-PROSP
 A GO INST V
 I am going **to Noiadi** by aeroplane.
- (134) *Koai nib-e ozo-ha vabamu / a-ba*
 corpse here-ERG think-DA discontinue.SA 3SG-DAT
 A V GO
beo-he-mu / a-ho lab vakete-he-lab-e /
 strike-DA-because 3SG-ERG there turn.around-REAL-there-ERG
 V A V
fibova-i / Aseda bake ab beo-ham.
 swing.around-SA Aseda to INDIC strike-REAL.INDIC
 V GO V
 The corpse thought and then decided (lit. stopped thinking) that because (Aseda) struck **him**, he turned around, swung and struck **Aseda**.

Addressee:

- (135) *Ai-at dubu lab-a neha, / "O-ho ae la-m*
 father-ERG old.bro there-DAT say 2SG-ERG bushknife there-ABS
 SPK ADD V
ve vou le-le" / laha-ha bak.
 take.SA with come-IMP like.that-REAL DECL
 Father said **to older brother**, "You get that bushknife and bring it",
 like that he said.
- (136) *Nam vahada nib-et aba nam meida-te nib-a*
 woman young.sibling here-ERG 3SG-DAT woman one-DAT here-DAT
 SPK ADD V
gago, "O-ho mode-he moio?"
 say 2SG-ERG do-REAL RHQ
 The younger of (his) wives said **to the older one**, "Were you not the
 one that did it?"

Recipient:

- (137) *Lo nim e-ho [Esi bake lo-lo] vou le-he bak.*
 vine this 1SG-ERG Esi to.DAT give-PROSP with come-REAL DECL
 U A R V V
 I have brought this vine [to give **to Esi**].
- (138) *Nam-da-te it lu / nam nib-e ve...*
 woman-PTS-DAT DIR.behind give.SA woman here-ERG take.SA
 R V A V
 (He) gave it **to the woman**, and the woman took it...
- (139) *Sube-oa o-m akati e-ba doi taho*
 Sube-VOC 2SG-ABS how.come 1SG-DAT money quickly
 VOC A R U V

olu-m vaba mode?
 send-IRR NEG.RHQ do
 Sube, how come you have not quickly sent **me** money?

Beneficiary:

- (140) *Num ni-m e-ho azi-lo mode-m kai. // Gi*
 house here-ABS 1SG-ERG live-PROSP do-IRR NEG ATN
 U A V V

da lab-a mo-ada.
 person there-DAT build-CONT
 B V

I am not building this house so that I can live in (it). (I) am building it **for that man there**.

- (141) *Ihe ni-m e-ho gi dubu bake fo-ada.*
 canoe here-ABS 1SG-ERG ATN old.bro DAT.to carve-CONT
 U A B V

I am carving this canoe **for older brother**.

5. BAUZI PRONOUNS

5.1 PERSONAL PRONOUNS

Bauzi verbs are not inflected for person, though transitive verbs are inflected to show number agreement with objects, and intransitive verbs are inflected to show number agreement with subjects. Bauzi has a system of five personal pronouns which are always inflected for case. The inflected forms occur as free words. There is no third person plural form. The stems are given in Table 3.

TABLE 3: PERSONAL PRONOUN STEMS

	Singular	Plural
1st	<i>e-</i>	<i>i-</i>
2nd	<i>o-</i>	<i>u-</i>
3rd	<i>a-</i>	—

These stems with their inflections yield five distinct sets. They are discussed below.

5.1.1 ERGATIVE CASE SUFFIX *-ho*

The Ergative (ERG) case suffix *-ho* is added to the personal pronoun stem to show the case relation of Actors of transitive verbs. This pronoun set seems to be more emphatic and contrastive in nature than the *-m* set of pronouns that will be discussed under §5.1.2. The Ergative set appears in Table 4.

TABLE 4: ERGATIVE CASE PRONOUNS

	Singular	Plural
1st	<i>eho</i> I	<i>iho</i> we
2nd	<i>oho</i> you	<i>uho</i> you
3rd	<i>aho</i> he, she, it	—*

* A third person plural participant is usually referred to by using the following noun phrase idiom: *dam labe iho* 'they', 'those people' (lit. people those we). See example (145) below.

- (142) *Ame ihe la-m dam lab-e i-ho modi*
 b.m. canoe that-ABS people there-ERG 1PL-ERG do.SA
 U A V

sete-he bak.
 lost-REAL DECL

Those men caused that canoe to be lost. (or: Those men lost that canoe.)

- (143) *Ae la-m e-ho esu.*
 bushknife that-ABS 1SG-ERG put.down
 U A V

I put that bushknife down.

- (144) *E-ho doho la-da-meam / vem-et doho gu-me /*
 1SG-ERG pig go-CONT-SIM dog-ERG pig give.chase-SA
 A V A U V

eote-he-mu / emoe-me / fu-si / do-me / ab
 corner-DA-because run-SA arrive-SA shoot-SA INDIC
 V V V V V

ote-h-am.

kill-REAL-INDIC

While **I** was pig hunting, because the dog gave chase to a pig and cornered it, (I) ran, arrived (at the spot), shot (the pig) and killed (it).

- (145) *O-ho zum le / tat vie-me esu-le.*
 2SG-ERG DIR.downstream go.SA weeds cut.down-SA leave-IMP
 A V U V

You go downstream, cut down the weeds (underbrush) and leave it.

Examples (143), (144) and (145) all illustrate the use of the Ergative pronoun as the Actor of a transitive verb. While that is so, one needs to be reminded that it is the last verb in the sentence that determines which pronoun is used (that is, the Ergative pronoun or the Absolutive pronoun, both of which can be used as Actors). In both (144) and (145) above the last verb in each sentence is transitive: 'kill' and 'cut-leave'. So the pronoun is Ergative. The transitivity or otherwise of earlier medial clauses in the sentence is irrelevant.

- (146) [A-*ho* *ti* *le* *fe-he-di*] *la-m* *a-m*
 3SG-ERG sago go.SA pound-REAL-SIM that-ABS 3SG-ABS
 TOP (TIME)

 [*ge-he* *bak*] *la-m* *neà-de-he* *vab-lab-e*
 hurt-REAL NOM that-ABS good-STATIVE-REAL NEG-there-ERG

doho gohate-m kai.
 pig go.about-IRR NEG
 U V

[At the time when **he** went and pounded sago], because he was not healed as yet from his [earlier injury], (he) did not go about (hunting) pigs.

In (146) above the grammatical function of the third person singular Ergative pronoun is that of Actor of the transitive verb 'go-pound'. The whole embedded sequence 'at the time when he went and pounded sago' is functioning both as Time and as TOPic for the sentence. This is signalled by the demonstrative *lam* 'that'. It is usually the case that when verbal clauses become topicalised, the actors of transitive verbs within the topicalised clause receive the Ergative case marking.

- (147) *Vaomei [u-ho dat fa agute-he bak-e] fa na*
 Vaomei 2PL-ERG man bone break-REAL NOM-ERG ITR thing
 VOC-A A U V U

lo-le.

give-IMP

V

Vaomei, [because **you** (people) broke the man's arm], (you) give us recompense.

In example (147) the clause 'because you broke the man's arm' has been topicalised by using the nominaliser *bak-e*, which in this case also gives the reason for the request made to Vaomei to 'give recompense'. The plural form is used because the speaker is addressing Vaomei who is brother to the one who broke the man's arm and he includes Vaomei in with his brother. But the request for recompense is made to Vaomei and the implicit actor of 'give' would be *oho* (=Vaomei) and not *uho*.

- (148) *I-ho a-m abi gida-t gago, "Gi olu-m*
 1PL-ERG 3SG-GEN uncle other-ERG say ATN send-IRR
 A V U

neà-na akati mali mode-la?"

good-PTS how.come be.against.SA do-INTER

We, his other uncles said, "It is all right just to send (him) away, why are (you) against it?"

In example (148) above the noun phrase 'his other uncles' stands in apposition to the first person plural Ergative pronoun *iho* 'we'. The entire quote is functioning as the Undergoer (U) of the verb 'said' which is interpreted as transitive.

5.1.2 ABSOLUTIVE AND GENITIVE SUFFIX *-m*

The personal pronoun stems inflected with the *-m* suffix mark both the Absolutive (ABS) and Genitive (GEN) cases. When the *-m* is marking the pronoun for Absolutive case, the pronoun is the Actor of an intransitive verb or it is the Undergoer of the action of a transitive verb. When the *-m* is marking the pronoun for Genitive case, the pronoun shows possession. Table 5 below shows the personal pronouns inflected with these case suffixes.

TABLE 5: ABSOLUTIVE AND GENITIVE CASE PRONOUNS

	Singular	Plural
1st	<i>em</i> I, me, my	<i>im</i> we, us our
2nd	<i>om</i> you, your	<i>um</i> you, your
3rd	<i>am</i> he, she, his, her, him	–

When the *-m* is used to mark the personal pronoun for the Genitive case, the pronoun precedes the head noun as in examples (149) and (150).

- (149) *Mumso-t neha, "A-m adnamat Yosina Kes bake*
Mumso-ERG say 3SG-GEN daughter Yosina Kes to
A V

lo-lo-mozo".

give-PROSP-DES

Mumso said (that) (he) wants to give **his** daughter Yosina to Kes.

- (150) *E-m num-a la-lo.*
1SG-ABS house-DAT go-PROSP
A GO V
I'm going to go to (my) house.

- (151) *I-m Omtovasea-ti Aamsu-ti na nib-a*
1PL-ABS Omtovasea-and Aamsu-and things here-DAT
A U LOC
mee-du-me / jam tiga fu-he-mu / ab
do-CONT.PL-SA hour three arrive-DA-CON.because INDIC
V A V V

zum la-da-m-am.

DIR.downstream go-CONT.PL-IRR-INDIC

Omtovasea and Aamsu (and I), **we** were doing work here and at three o'clock
(lit: because three o'clock arrived) went downstream.

In (151) above the use of *im* as the Actor of the transitive verb 'do' might appear to be a contradiction to the rule. The choice of *im* is correct because the final verb of the sentence is the intransitive verb 'go'. As has already been pointed out earlier, it is the last verb of the sentence that influences whether to use the Ergative case suffix *-ho* or the Absolutive case suffix *-m*.

- (152) *Na-t e-ba vālu mode-he-lab-e / e-m*
 thing-ERG 1SG-DAT accuse.SA do-REAL-there-ERG 1SG-ABS
 A IO V U
utaaso-bu-t subati / ab beo-h-am.
 branch-CL.large-CAUSER fall.down.SA INDIC strike-REAL-INDIC
 A (CAUSER) V V
 Because something accused me, a large tree branch fell down and hit **me**.

The pronoun that is used as the Actor of the intransitive verb in example (150) above is the same pronoun which is used as the Undergoer of the transitive verb in (152). This gives credibility to saying that Bauzi is an Ergative language.

Not only are pronouns inflected with the Genitive case suffix *-m*, proper nouns can have this inflection as well to show possession. The possessor, when identified by means of a proper noun, precedes the possessed head noun. This is so even when the possessed head noun is itself modified. See example (153) below.

- (153)a. *Bido-m tasba fa agute.*
 Bido-GEN forearm bone break
 U V
 (Something) broke Bido's forearm.
- b. *Bido-m ae-ba bohu valo voo.*
 Bido-GEN bushknife-CL.flat long water.DAT throw.away
 Bido's long bushknife was thrown into the water (when the canoe capsized).

5.1.3 DATIVE SUFFIX *-ba*

The personal pronoun stems are inflected with the suffix *-ba* to show the Dative case relation. The suffix *-ba* is actually an allomorph of the suffix *-a* with which nouns and demonstratives are inflected to show the Dative case. This third set of pronouns is used to case-mark the following roles: Recipient, Addressee, Goal. Table 6 below shows the personal pronouns inflected with these case suffixes.

TABLE 6: DATIVE CASE PRONOUNS

	Singular		Plural	
1st	<i>eba</i>	me	<i>iba</i>	us
2nd	<i>oba</i>	you	<i>uba</i>	you
3rd	<i>aba</i>	him	–	

- (154) *E-ba na lo-m vaba-e-meam / bohude tame.*
 1SG-DAT thing give-IRR NEG-ICP-SIM fight EMP
 IO (R) U V V
 If (people) don't give **me** anything (in retribution), (I) will definitely fight.

In example (154) the first person pronoun *e-* is inflected with the Dative case suffix *i-ba*. The grammatical function is that of indirect object (IO) and the role that this case relation is

showing is that of Recipient (R); it is the end point toward which the action 'giving' is directed.

- (155) *I-ba li gago-m kai.*
 1PL-DAT come.SA say-IRR NEG
 DAT (GO) V V
 No one came to **us** and said (anything).

In example (155) the first person plural pronoun *i-* is inflected with the Dative case suffix *-ba* as well. The role here is that of Goal as the action of 'coming' and 'speaking' is directed toward 'us', though in this case both the 'coming' and 'saying' are negated. Example (156) below shows that the Dative case marks the role of Addressee.

- (156) *Laha-me / e-ba labi gago-he-mu / e-ho dam*
 like.that-SA 1SG-DAT like.that say-DA-because 1SG-ERG people
 V DAT (ADD) V A (SPK) DAT (ADD)
bake bute.
 to call
 V
 Because (he) spoke to **me** like that, I called out to the people.

Under §4.3.2 above four ways were discussed by which nominals could be signalled to be in the Dative case. One of those ways was by following the nominal with the postposition *bake* 'to'. Example (156) above shows that.

5.1.4 EMPHATIC/CONTRASTIVE SUFFIX *-hVmo*

Bauzi personal pronouns can also be inflected with the suffix *-hVmo* which yields an Emphatic/Contrastive (EMC) set (where the vowel (V) echoes the pronoun stem vowel). This set appears in Table 7 below.

TABLE 7: EMPHATIC/CONTRASTIVE PRONOUN SET

	Singular		Plural	
1st	<i>ehemo</i>	I myself	<i>ihimo</i>	we ourselves
2nd	<i>ohomo</i>	you yourself	<i>uhumo</i>	you yourselves
3rd	<i>ahamo</i>	he himself she herself	–	

The examples below demonstrate this set's use both emphatically and contrastively. First are some examples that show the contrastive meaning 'X does action, not Y'.

- (157) *E-ho Maliana bake gago / "Maliana dam*
 1PL-ERG Maliana to say Maliana people
 A (SPK) DAT (ADD) V VOC TOP

This set of pronouns also yields the meaning ‘X did it alone, no one else joined in’.

- (160) *Ne gi o-ho a-m ai meida-t vou*
 CON ATN 2SG-ERG 3SG-GEN father IDF-ERG with
 A V
la-ha-na / akati o-homo iademe mode-m
 go-REAL-PTS how.come 2SG-EMC carefully do-IRR
 A V
vaba fa da iudu iub-a lo-he-la.
 NEG ITR man there.distant there-DAT give-COMP-RHQ
 IO (R) V

Seeing that the case is that you, one of his uncles, have carried (him) (the orphaned boy) away, why is it that **you yourself**, having not acted responsibly, have given him to that man over there.

Example (160) comes from a letter, in which the author is berating the recipient for his lack of responsibility in properly caring for his dead brother's orphaned son. That is the force of the rhetorical question in the last part of the construction. By using the second person pronoun form *ohomo* 'you yourself', the author is letting the recipient know that the fix that he is in is all his own doing.

- (161) *Kelambu-dedà-t kelambu v ààsu-m-di /*
 mosquito.net-owner-ERG mosquito.net hang.up-IRR-SIM
a-hamo ozo-me / iademe v ààsu-m bak.
 3SG-EMC think-SA carefully hang.up-IRR DECL
 Whenever a mosquito net owner hangs up his mosquito net, **he himself** considers and then carefully hangs it up.

It should be pointed out here that a reflexive is different from this set of pronouns. Bauzi will use both the *-hVmo* and the Ergative set of pronouns in combination with the common noun *naeda* 'owner' or its allomorph *-deda* 'owned' and/or the directional word *it* 'toward self' to produce the reflexive meaning: 'X does action to itself', that is where the Actor is coreferent with the Undergoer. Example (162) shows this use.

- (162) *Ahu fai-di a-ho naeda it belu elo.*
 heart bad-STATIVE 3SG-ERG owner DIR.toward.self strike.SA die
 (Because) (he) was sad (lit. heart was bad), **he** killed **himself**.

All soliloquies are formed using either the *-hVmo* or the Ergative *-ho* pronoun in combination with the nominals *naeda* 'owner' or *ahula* 'heart' plus the directional *it* 'back toward self'. Compare the three examples under (163).

- (163)a. *E-hemo ozo-me vamea-da-m im-ot mode-m bak.*
 1SG-EMC think-SA tell-CONT-IRR words-ERG do-IRR DECL
 (Those words just uttered) are words that **I myself** (i.e. not anyone else) am telling.
 b. *E-ho naeda-t it ozo-da. // "..."* /
 1SG-ERG owner-ERG DIR.toward.self think-CONT

laha-me it ozo-da.

like.that-SA DIR.toward.self think-CONT

I was thinking to **myself**, “...” like that (I) was thinking to **myself**.

c. *A-hamo ahula-t it ozo-da...*

3SG-EMC heart-ERG DIR.toward.self think-CONT

He with (his) heart was thinking to **himself**...

To express reciprocity, that is the meaning ‘X and Y act upon each other’, Bauzi uses the pre-verb particle *ot*. The *ot* particle occurs with both the *-ho* and *-hVmo* sets of pronouns and other nominals as well. Again its use is different from the emphatic/contrastive set. Examples (164) and (165) illustrate reciprocity.

(164) *I-ho Esi-ti im ot vamea-i-me fa neà-de-he*
1PL-ERG Esi-and words RCP tell-ITR-SA ITR good-STATIVE-REAL

im vamea-da-lo.

words tell-CONT-PROSP

(I) am going to tell about how Esi and I had words with **each other** and how we became reconciled again.

(165) *Dam doho mei fote-he bak-e dam i-himo*
people pig IDF pass.by-REAL NOM-ERG people 2PL-EMC

ot be-i-da.

RCP argue-ITR-CONT

The people (responsible) (i.e. the ones who killed the pig) **they themselves** are arguing with **each other** about having not given different ones pig meat.

5.1.5 PARTICULARISER SUFFIX *-bVda*

The suffix *-bVda* (where the vowel (V) echoes the pronoun stem vowel) does not show any case relation. It is simply a suffix emphasising ownership. Table 8 below shows the personal pronouns inflected with this suffix. (Note that in the examples that follow, this pronoun suffix is glossed “particulariser” (PTS) which is the same gloss as for the *-da* suffix added to verbs to indicate relative clauses.)

TABLE 8: PRONOUNS WITH SUFFIX *-bVda*

	Singular		Plural	
1st	<i>ebeda</i>	mine	<i>ibida</i>	ours
2nd	<i>oboda</i>	yours	<i>ubuda</i>	yours
3rd	<i>abada</i>	his, hers	–	

These pronouns with the *-bVda* suffix primarily represent the thing possessed rather than the possessor. They are used in two ways. Firstly they occur as the second part of a (verbless) equative clause as in example (166) below.

- (166) *Kuku lada la-m e-beda.*
 chickens PTS that-ABS 1SG-PTS
 TOP (V)
 Those chickens are **mine**.

In example (166) above there is no verb in the clause. When this speech is uttered the 'chickens' being referred to are in sight and they are being individuated from all other chickens and are being emphatically claimed by the speaker by using the suffix *-beda* on the pronoun.

The *-bVda* pronouns may also modify a noun in a noun phrase, occurring immediately following the head noun and before any demonstrative. In this position, they give more specific information about the head noun, namely that it is a possessed thing. This construction is different from the more usual possessive construction described in §5.1.2, where the Genitive *-m* pronoun precedes the head noun. This *-bVda* construction is more emphatic, as in examples (167) and (168).

- (167) *E-m doho u-buda la-m e-ba mali*
 1SG-ABS pig 2PL-PTS that-ABS 1SG-DAT be.against.SA
à-meam e-m ba àvode-m va-bak.
 eat-COND 1SG-ABS TIME.later shock-IRR NEG-DECL
 If you selfishly (lit. are against giving me any) eat **your own** pig (or: the pig which is yours), I won't get alarmed.
- (168) *Doho u-buda ni-m Knban doho e-ho do-u à-meam*
 pig 2PL-PTS this-ABS Knban pig 1SG-ERG shoot-SA eat-COND
làhà / doho i-bida akati vou la-m vaba mode.
 if.that.is.the.case pig 1PL-PTS how.come with go-IRR NEG do.RHQ
 As for this pig of **yours**, that is, Knban's pig, if I for a fact have shot and eaten (it), then how come I haven't taken the pig which is **ours** away from here (RHQ) (*Implied*: so as to prevent you from killing it.)

A *-bVda* pronoun may also occur as the head of a noun phrase as in the first sentence of example (169) below.

- (169) *I-m maboe nidi ni-m gi i-bida tade-he*
 1PL-GEN widow PTS this-ABS ATN 1PL-PTS only.is-REAL
bak. // Maboe o-boda a-m oi-at vou fa
 DECL widow 2SG-PTS 3SG-GEN mother-ERG with ITR
Noi-e vou la-ha.
 Noi-ERG with go-COMP
 As for these widows of ours, it is only **ours** that are here. As for **your** widow (or: the widow that is yours), her mother has taken her away up the Noi River.

The words in example (169) were taken from a text where the brother of a dead man returns to the area where his brother has recently been killed and is demanding that the people return the dead man's widow to him as she is the property of the dead man's brothers. So he arrives in the village and asks the people there if they are hiding the dead man's widow. And example (169) is the response of the people. In the first part of the first sentence in (169), the

first person plural pronoun with the Genitive case suffix is used. In the second part the more emphatic first person plural *-bVda* pronoun is used. They both show possession but the latter is more emphatic. For the use of the particularising pronoun *nidi* see under §5.5.2.

- (170)a. *Labi ba neo doho meida la-m neo Ahana-t*
 CON TIME.later next pig IDF that-ABS next Ahana-ERG
ote-me / dam [à-m-dà]-t i-himo ab à-h-am. //
 kill-SA people eat-IRR-PTS-ERG 1PL-EMC INDIC eat-REAL-INDIC
 And then later Ahana killed another pig and the ones [that would eat it], they themselves ate it.
- b. *Labi Buto dubu bake lu à-m kai. //*
 CON Buto old.bro to give.SA eat-IRR NEG
 (They) did not give any to older brother Buto to eat.
- c. *Data a-bada lam-ti a-m lahi lam-ti lu à-m kai.*
 child 3SG-PTS that-and 3SG-GEN wives that-and give.SA eat-IRR NEG
 That is (they) didn't give any to **his** children or his wives to eat.

By the narrator's choice of the more emphatic *-bVda* pronoun in example (170c) above, he has individuated Buto's children from all other children and has made them prominent. That's his beef: why were these particular children bypassed in the pork distribution.

The apparent contradiction in the same Actor suffixes that occur attached to the verb 'kill' in example (170a) and the verb 'eat' in (170b) involve two special uses of the switch-reference system in Bauzi as explained under §2.4.1 and §2.4.2 respectively.

The emphatic possession suffix *-bVda* can occur on personal names and kin nouns as is demonstrated in example (171) below.

- (171) *Làhàmu Itbulu-hat gago, "I-mo num Lobio-bada na*
 CON Itbulu-ERG say 1PL-SUBJ house Lobio-PTS thing
ohu-m num lab-a esu vou es-da-hit
 cook-IRR house there-DAT put.down AUX stay-CONT-until
diha-se".
 become.daylight-SUBJ
 Therefore Itbuluh said, "Let's put the corpse down in Lobio's cook house and stay with it until morning".

The *-bVda* suffix attached to the pronoun or personal name which is the possessor appears to be derived from the *-ba* case suffix of the Dative pronouns (Table 6) combined with the particularising suffix *-da*, which is attached to nouns, verbs and adjectives. One might even translate these pronoun combinations as 'the one which is mine', 'the one which is Lobio's', and so on.

Example (172a) demonstrates that the *-da* drops off when it precedes the Ergative pronouns or a noun, adjective, or clause which is already suffixed with the particularising suffix. Example (172b) is added for contrast. (NOTE: the double set *-bV...-ho* will be discussed below under §5.2).

- (172)a. *Ae i-bi i-ho fo-m-da a lo-mule. /*
 bushknife 1PL-PTS 1PL-ERG strike-IRR-PTS PROH give-PROH

O-bo amu-da lo-m vaba-te!
 2SG-PTS earlier-PTS give-IRR NEG-RHQ

Don't give **our** bushknife that we use for doing things. Why don't (you) just give (him) one of **your own** bushknives that (you) (acquired) earlier!

- b. *Ae i-bida a lo-mule.*
 bushknife 1PL-PTS PROH give-PROH
 Don't give (him) **our** bushknife.

5.2 COMBINATIONS OF PRONOUNS

Two of the personal pronoun sets are found occurring together: the *-bVda* and Ergative *-ho* sets. This combination yields this sixth set as in Table 9, in which the (V) echoes the pronoun stem vowel.

TABLE 9: *-bV...-ho* PRONOUN SET

	Singular		Plural	
1st	<i>ebe eho</i>	mine that I	<i>ibi iho</i>	ours that we
2nd	<i>obo oho</i>	yours that you	<i>ubu uho</i>	yours that you
3rd	<i>aba aho</i>	his that he	—	

This double pronoun set occurs at the beginning of relative clauses. In a relative clause, the Ergative pronoun is always initial. This can be diagrammed as follows:

Rule (15) PRONOUN STEM *-bV* + RELATIVE CLAUSE
 -PTS

[PRONOUN STEM *-ho* + V.STEM + STATUS *-da*]
 -ERG -PTS

As was stated under §5.1.5, when the *-bVda* pronoun modifies a noun in a noun phrase, it occurs immediately following the head noun and before any demonstrative. This holds true for this double set as well. As was said above under §5.1.5, the *-da* of the *-bVda* suffix drops off when it precedes personal pronouns inflected with the Ergative suffix *-ho*. The pronoun inflected with this shortened suffix *-bV* along with the relative clause whose Actor is the Ergative pronoun follow the noun that the relative clause modifies. This is demonstrated in example (173) below.

- (173) *Labi Busda-t num a-ba [a-ho azi-hi-da]*
 CON Busda-ERG house 3SG-PTS 3SG-ERG live-REAL-PTS
 A LOC [A V]
 [zum totbaho-da] lab-a /
 downstream other.side-PTS there-DAT

<i>ai-da-m-lab-e</i>	<i>vim</i>	<i>aa-ha / manteri</i>	<i>aliha.</i>
stay-CONT-IRR-there-ERG	DIR.upstream	see-DA	med.worker see
V	V	U	V

As Busda was staying in **his** house, [the one in which **he** lives], [the one located downstream on the other side of the river], when he looked in the direction of upstream from there, (he) saw the medical worker.

In example (173) above 'the one in which he lives, the one located downstream on the other side of the river' is describing which house Busda was staying in when he saw the medical worker. The narrator is individuating between the two houses that Busda owns by using these two pronouns together, the *-bV* one (shortened from *-bVda*) and the *-ho* one.

Although example (174) below has a slightly different arrangement than (173) above, the shortened form of *-bVda*, that is *-bV*, still follows the noun it possesses. The Ergative pronoun *aho* is no longer the Actor of a relative clause but of a dependent clause.

- (174) *Labi Busda-t a-ho num a-ba [zum*
 CON Busda-ERG 3SG-ERG house 3SG-PTS downstream
 TOP A LOC
totbaho-da] lab-a ai-da-m-lab-e / vim
 other.side-PTS there-DAT stay-CONT-IRR-there-ERG DIR.upstream
 V V
aa-ha / manteri aliha.
 see-DA med.worker see
 U V

Busda, as **he** was staying in **his** house, [the one located downstream on the other side of the river], when he looked in the direction of upstream from there, (he) saw the medical worker.

As was stated above in §5.1.5, so too here the double set *-bV(da)...**-ho* can occur as the second part of a (verbless) equative clause as in examples (175) and (176) below. Both (175a) and (175b) are acceptable; although (a) is more "particularising" than (b).

- (175)a. *Num beahu-ba lada la-m [o-bo [o-ho*
 house rack-CL.flat PTS that-ABS 2SG-PTS 2SG-ERG
 TOP COMMENT: verbless clause
amu li i-hi-da]] am bak.
 earlier come.SA sleep-REAL-PTS EMP DECL
 That particular sleeping rack in the house is the [very one on which (**you**) slept when **you** came earlier]. (*or* : ...it is [yours [the one on which (you) slept when you came before]].)
- b. *Num beahu-ba lada la-m o-boda mode-m bak.*
 house rack-CL.flat PTS there-ABS 2SG-PTS do-IRR DECL
 TOP COMMENT
 That particular sleeping rack in the house is **yours**.
- (176) *Doho lada la-m [i-bi [i-ho ote-he-da]] am bak.*
 pig PTS that-ABS 1PL-PTS 1PL-ERG kill-REAL-PTS EMP DECL
 TOP COMMENT: verbless clause
 That particular pig is [**ours** [the one that **we** killed]].

Both (175a) and (176) above have equative main clauses. There are no overt verbs in the main clause. Structurally, the TOPIC, or the first part of the sentence, contains a noun phrase and the COMMENT, or the last part of the sentence, contains a verbless clause whose nucleus consists of the double set of pronouns *-bV....-ho*, the last pronoun functioning as the Actor of the relative clause.

Example (177) below demonstrates the double set of pronouns used in the TOPIC part of the sentence.

- (177) *[E-be [e-ho mode-m-na]] la-m e-ho naeda-t*
 1SG-PTS 1SG-ERG do-IRR-PTS that-ABS 1SG-ERG owner-ERG
 TOPIC (U) A

mode-lo mode-m bak. // Mei-t a mode-mule.
 do-PROSP do-IRR DECL IDF-ERG PROH do-PROH
 V A V

That which is **mine** which **I** will do, I myself will do it. Don't anyone else do it.

The two sentences in example (178) below are contrastive and further demonstrate that this double set has a 'possessive' nuance about it.

- (178)a. *Ne o-m akati [i-ho etei-t va-me vou*
 CON 2PL-ABS how.come 1PL-ERG today-ERG take-SA with
 A U

vim le-he ae] lo-he-la?
 upstream come-REAL bushknife give-INTER-RHQ
 V

Why did you give [the bushknife which we received and brought upstream today] (to him)!

- b. *Ne o-m akati ae [i-bi [i-ho etei-t*
 CON 2PL-ABS how.come bushknife 1PL-PTS 1PL-ERG today-ERG
 A U

va-me vou vim le-he-da]] lo-he-la?
 take-SA with upstream come-REAL-PTS give-INTER-RHQ
 V

Why did you give the bushknife [the particular one that is **ours** [which **we** received and brought upstream today]] to him!

In example (178a) above, a verbal clause modifies 'bushknife', focusing on which bushknife was given: 'the one we received and brought upstream today'. In (178b) the focus is on the fact that the particular bushknife in question is the one which belongs to the whole group which the Speaker and others received when they travelled together downstream.

5.3 THE INDEFINITE PRONOUN *mei*

The indefinite pronoun *mei* 'someone' can be inflected in a similar way to the personal pronouns.

TABLE 10: INDEFINITE PRONOUN SET

Ergative	<i>meit</i>
Absolutive-Genitive	<i>mei</i>
Dative	<i>meia</i>
Particularising	<i>meibada</i>
Emphatic-Contrastive	<i>meit ahamo</i>

Examples (179) to (185) illustrate their use.

- (179) *Mei-t i-ba amu gi doho do-m tãhamba!*
 IDF-ERG 1PL-DAT earlier ATN pig shoot-IRR NEG.RHQ
I-ho ba u-m doho fa neo do-m-na!
 1PL-ERG later 2PL-GEN pig ITR next shoot-IRR-PTS.RHQ
 It wasn't just a pig of ours that **someone** came and shot earlier, was it! (RHQ)
 (*Implied*: you actually killed one of our people). (If it had been) we would
 have killed one of your pigs in revenge, would we not (*Implied*: but we
 haven't)! (RHQ)

The speech in example (179) is filled with sarcasm. Instead of using the second person plural Ergative pronoun *uho*, the speaker is referring to his audience with the indefinite pronoun with the Ergative case suffix that usually occurs on noun phrases functioning as Actors of transitive clauses. The indefinite pronoun is the pronoun of choice for indirectly accusing someone of a crime.

- (180) *Dam la-m [i-m ote-lo] mod li*
 people that-ABS 1PL-ABS kill-PROSP with.arms come.SA
vabed-da-ha / dam [mei ote-he-da] aliha-m
 spy-CONT-DA people IDF.ABS kill-REAL-PTS see-IRR
 U V
vaba-mu / gi ahate ab fu-h-am.
 NEG-because ATN openly INDIC arrive-REAL-INDIC
 Those people, [intending to kill us], came armed with weapons, and when (they)
 spied us out, because (they) were not able to see the people [who killed
someone], (they) just arrived in the open.

In example (180) above the relative clause is used as an identificational or restrictive clause to give more specific information about the head noun 'people'. In the relative clause itself, the Undergoer is the indefinite pronoun in its Absolutive form: *mei*. Since it is taboo to say the name of a dead person, this again is the proper choice of pronoun.

Examples (181) to (185) below show the indefinite pronoun inflected for the Genitive and Dative cases. These cases are inflected to show possession and emphasis-contrast, and also show the pronouns use as an Actor in a relative clause.

- (181) *Ne i-m mei doho a do-u à-ha /*
 CON 1PL-ABS IDF.GEN pig secretly shoot-SA eat-COMP
 A U V

laha-m-na / akati doho e-beda ni-m
 like.that-IRR-PTS.CON how.come pig 1SG-PTS this-ABS
 V U

vouta-m vaba mode?
 carry.away-IRR NEG do.RHQ
 V

So (you) say that we have killed **someone's** pig and have eaten it, like that you say, but if that is so then why have I not taken my pig and carried it away somewhere (*Implied*: to keep it from being killed in revenge)?

- (182) *Ne u-m mei-a taho ahate li ote-m*
 CON 2PL-ABS IDF-DAT quickly openly come.SA kill-IRR
 A U V

vaba-na / akati a dalu vihito-i la-i-à!
 NEG-CONTRA how.come secretly go.through pull.away-SA go-ITR-RHQ
 V

But you have not quickly and openly come to **someone** and killed (that one), so how come you keep secretly coming through (the underbrush) and then pulling away and leaving again! (RHQ)

- (183) *U-m doho fai-na à-m-na doho mei-bada nehu ba*
 2PL-ABS pig bad-PTS eat-IRR-PTS pig IDF-PTS fat later
 TOP A-U

budua-li / ote-me / à-m-di-a / ba u-ba lu
 big-ICP kill-SA eat-IRR-SIM-DAT later 2PL-DAT give.SA
 V V V R V

à-m kai.
 eat-IRR NEG

You who eat skinny pigs, when **someone else's** pig later gets fat and becomes big and (they) kill it, (they) definitely will not give any of it to you to eat.

- (184) *Mei-t a-hamo vahe-he-na / akati o-ho*
 IDF-ERG 3SG-EMC stack.up-REAL-PTS how.come 2SG-ERG
 A V A

e-ba li / be-à-dà-la` // E-hemo fao-be/
 1SG-DAT come.SA fight-ITR-CONT-RHQ 1SG-EMC wait-SA
 GO-ADD V V A V

le / viso-lo mode-m bak.
 go.SA pick.up-PROSP do-IRR DECL
 V V

What is the big idea that you have come to me and are arguing with me about what **someone else** has **herself** stacked up (i.e. firewood)! (*Implied*: it doesn't concern you) In a little while I myself intend to go and pick it up.

- (185) *Ae lada la-m [mei-t doi lu esu-hu-da]*
 bushknife PTS that-ABS IDF-ERG money give.SA put-REAL-PTS
 U [A U V]

a viso-mule.
 PROH pick.up-PROH
 V

That bushknife is [one that **someone** has paid a downpayment on] (so) don't take it.

5.4 THE SUBJUNCTIVE MODE PRONOUN *i-mo*

The first person plural pronoun stem *i-* is the only personal pronoun stem that occurs with the subjunctive mode pronoun suffix *-mo*. This is not to say that this is the only pronoun that occurs with the subjunctive mode. The other pronouns that are used with the subjunctive mode are those from the Ergative set. In the examples where the pronoun *i-mo* occurs, the *-mo* suffix has simply been glossed SUBJ indicating that it co-occurs with the subjunctive mode. See examples (171) above and (186) below.

- (186) *Aibu-le-he-mu / Paulus-at ab gago-h-am. //*
 dark-ICP-DA-because Paulus-ERG INDIC say-REAL-INDIC

"I-mo koai iub-a vou vim lazi /
 1PL-SUBJ corpse there-DAT with DIR.downstream go.down

esu / bute-me aii-se."
 put.SA call.out-SA hear-SUBJ

Because it had become dark, Paulus spoke. "Let's take the corpse down (to the beach area) (in the direction of) upstream, put it down and call out (to her dead spirit) and listen (for the answer)."

- (187) *U-ba [dam gida] do-ma. // E-ho tau-se.*
 2PL-DAT people other shoot-PROB 1SG-ERG join.in-SUBJ
 GO V A V

(If you go) they will probably shoot you [who are outsiders] (i.e. not relatives).
 Let me go (as well).

5.5 DEMONSTRATIVES

The Bauzi demonstratives along with the pronouns which have been discussed above, have a deictic function. In discourse, Bauzi demonstratives are used to shift reference from one participant to another. They are also used to locate objects with regard to the spatial positioning of the speech act and its participants. Foley (1986:75) says:

Demonstrative systems may be built up on two differing, but not exclusive principles. Taking the three-way person distinction of the pronouns as basic, a language may have a three-way contrastive system of demonstratives: one for the location of the speaker, one for the location of the addressee, and one for locatives corresponding to neither of these, the 'other' location.

Bauzi is a language that has this "three-way system" which is based on relative distance from the speaker. This system is shown in Table 11 along with the suffixes that case-mark these demonstratives.

TABLE 11: BAUZI DEMONSTRATIVES

CASE	STEM		
	<i>nib-</i> here, this DEF	<i>lab-</i> there, that DEF	<i>iub-</i> there, that IDF (remote)
DAT	<i>niba</i>	<i>laba</i>	<i>iuba</i>
ERG	<i>nibe</i>	<i>labe</i>	<i>iube</i>
ABS	<i>nim</i>	<i>lam</i>	<i>ium</i>

While the demonstratives with the stems *nib-* and *lab-* are more definite in nature, the demonstrative with the stem *iub-* appears to be indefinite. In other words when the speaker uses the former two he has a specific place or referent in mind, whether it is near (the speaker) or far away (close to hearer). But when the speaker uses the latter one, the entity is spatially farther removed from the area of the speech act, often out of sight, and is indefinite in nature.

5.5.1 SINGLE DEMONSTRATIVES

The nine single demonstratives shown in the top part of Table 11 may be used in any grammatical slot in a clause and with any semantic role that is appropriate to each case marker. As location, goal and source these demonstratives may occur alone. In all slots of a clause they typically occur with a noun. As source a noun cannot occur without a demonstrative. The demonstrative is always last in the noun phrase and hence it always has the case marker suffixed to it. The examples (188) to (198) show some typical uses of these demonstratives in Bauzi clauses.

- (188) *lab-a* 'at there' used alone as Location:

Làhàmu dam-at lab-a do-so-me / ki-ha / usa-i /
 CON people-ERG there-DAT shoot-CNT-SA draw-DA get.up-SA
 A LOC V

neo feu...

next fly

Therefore people tried to shoot (the bird) **there** (on the tree branch), but when (they) drew (their bows), (the bird) took to the air and again flew away...

- (189)
- nib-e*
- 'from here' as modifier of Actor-Speaker;

nib-a 'to here' as modifier of Goal-Addressee:

Da nib-e nam nib-a gago, "Kohu o-ho zite-le."
 man here-ERG woman here-DAT say breadfruit 2SG-ERG climb-IMP
 A-SPK GO-ADD V

The man **here** said to the woman **here**, "You climb up the breadfruit tree".

- (190)
- lab-a*
- 'to there' as modifier of Goal:

...gi Esi-m doho fiho num lab-a ab
 ATN Esi-GEN pig domesticated house there-DAT INDIC
 LOC (GO) V

zum bio-da-h-am.

DIR.downstream cross.over-CONT-REAL-INDIC

...(they) were crossing over to Esi's domesticated pig house **there**.

- (191)
- iub-a*
- 'at there' as a modifier of a Location:

Bihi baseà nib-e gago, "O-m bak
 cassowary teenager here-ERG speak 2SG-ABS place
 A-SPK V A LOC

iub-a aii-meam / [na-t bitgei-da-m
 there-DAT hear-COND something-ERG footsteps-CONT-IRR
 V U

bak] aii-meam / a iede-mule".

NOM hear-COND PROH be.frightened.of-PROH
 V V

This teenage cassowary said, "If you hear [someone's footsteps] over **there**, don't be frightened".

- (192)
- nib-e*
- 'from here' as modifier of an Actor of a transitive verb:

Labi da nib-e os mo-me / doho ab deha-da-m-am.
 CON man here-ERG rack build-SA pig INDIC roast-CONT-IRR-INDIC
 A U V U V

This man **here** made a cooking rack and began roasting the pig.

- (193)
- lab-e*
- 'from there' as modifier of Source:

Toeà gi Noi-bus lab-e tom emoe.
 Toeà ATN Noi-peninsula there-ERG up run
 A LOC (S) V

Toeà just ran up **from** the Noi peninsula.

- (194)
- iub-e*
- 'from there' to identify a contrastive Topic:

Da iub-e a-m nam iu-m e gago-male.
 man there-ERG 3SG-GEN wife there-ABS name speak-IMP
 TOP TOP U V

As for **that** man – and further as for his wife – say her name.

- (195)
- ni-m*
- 'this' as marking Time as Topic:

E-m etei ni-m fa neo fa mei-bada vi belu /
 1SG-ABS today here-ABS ITR next bone IDF-PTS DIR strike.DA
 A TOP (TIME) U V

fa ilabe-de-m bak.
 ITR appease-STATIVE-IRR DECL
 V

As for **this** very day, I will next break someone else's arm and then (I) will be appeased.

- (196)
- la-m*
- 'that' as modifier of Actor of intransitive verb:

- a. *Labi dam la-m fa bio-u / fa Noi iub-e*
 CON people there-ABS ITR cross.over-SA ITR Noi there-ERG
 A V V

iehe-i / fa neo bio-u...
 like.this-SA ITR next cross.over-SA
 V

And so **those** men went back across the river and from the Noi River they went a little distance and then crossed back over again...

- b. *O-m [da la-m fisiva-ha-na] o-m akati*
 2SG-ABS man there-ABS die-REAL-PTS 2SG-ABS why
 A V

labi mee-dàla.
 like.that do-CONT.INT

Don't you (know) [**that** man is dead], why are you doing like that (i.e. giving him medicine)?

- (197)
- iu-m*
- 'that' as modifier of Undergoer:

Iub-a zum le / kohu iu-m suto-le.
 there-DAT downstream come breadfruit there-ABS pick-IMP
 GO V U V

Go downstream to (someplace) there and pick **some** breadfruit.

- (198)
- iu-m*
- 'that' as Topic:

I-mo nam iudu iu-m ae vahe-me aa-se.
 1PL-SUBJ woman PTS there-ABS bushknife stack.up-SA see-SUBJ
 A TOPIC U V

As for **that** particular woman that is over there, let's get ready bushknives (=bride wealth) and see what will happen. (*Implied*: see if she is willing to become our bride).

5.5.2 DOUBLE DEMONSTRATIVES

The three demonstrative stems *nib-*, *lab-* and *iub-* can be suffixed with the particularising suffix *-da* (one of the two suffixes that may attach directly to nouns with this same meaning). When these stems are suffixed with *-da* the final *b* of the stem drops off and the final *a* of the

-*da* suffix assimilates to harmonise with the final vowel of the demonstrative stem. This morphophonemic change yields these three demonstratives: *nidi*, *lada* and *iudu*. These three demonstratives never occur alone but are always followed by a demonstrative from the nine discussed in §5.5.1. The two demonstratives must have the same root. Thus nine pairings are possible as in Table 12.

TABLE 12: DOUBLE DEMONSTRATIVES

CASE	<i>nidi</i> the one which is this one	<i>lada</i> the one which is that one	<i>iudu</i> the one which is that one (remote)
DAT	<i>nidi niba</i>	<i>lada laba</i>	<i>iudu iuba</i>
ERG	<i>nidi nibe</i>	<i>lada labe</i>	<i>iudu iube</i>
ABS	<i>nidi nim</i>	<i>lada lam</i>	<i>iudu ium</i>

These double demonstratives may occur in most grammatical slots and semantic roles. Semantically they specify and individuate the noun they follow more than do the single demonstratives of §5.5.1. Examples (199) to (204) illustrate some of their uses. In the examples below the *nidi*, *lada*, and *iudu* pronouns have been glossed PTS, indicating that they are derived from the particularising suffix -*da*.

- (199) *lada* with *laba* as modifier of Goal meaning ‘to that particular place’:

I-ho ame koai la-m vou la-ha / dam koai
 1PL-ERG b.m. corpse that-ABS with go-DA people corpse
 A U V A U

num lada lab-a esu-m kai.
 house PTS there-DAT put.down-IRR not
 LOC (GO) V NEG

When we carried that before-mentioned corpse, the people did not put the corpse in **that particular** house (From context: the one we talked about).

- (200) *iudu* with *iuba* as modifier of Indirect Object (Recipient) meaning ‘to that particular one way over there’:

I-mo nam ni-m da iudu iub-a lo-se.
 1PL-SUBJ woman this-ABS man PTS there-DAT give-SUBJ
 A U IO (R) V

Let’s give this woman to **that particular** man **way over there**.

- (201) *lada* with *labe* as modifier of Actor (Speaker) of a speech verb ‘that particular one’:

Dam lada lab-e i-ba neha / Knban doho i-ho
 people PTS there-ERG 1PL-DAT say Knban pig 1PL-ERG
 A-SPK GO-ADD V

a do-u à-ha.
 secretly shoot-SA eat-COMP

Those particular people said to us that we secretly shot Knban’s pig and (we) ate it.

- (202) *nidi* with *nim* as modifier of Undergoer of transitive verb meaning 'this particular one':

Da [e-be nidi ni-m beo-ho-da] ba a beo-mule.
 man 1SG-PTS PTS this-ABS strike-REAL-PTS later PROH strike-PROH
 Don't anyone strike **this very** man here [who has already been struck, whom
 I (am protecting)].

- (203) *nidi* with *nimota* as modifier of Undergoer of transitive verb meaning 'only this particular one' (-*ota* is an allomorph of -*ta* 'only'):

Doho nidi ni-m-ota à-me i-eo?
 pig PTS this-ABS-only eat-SA sleep-INTER
 Are (we) going to eat only **this particular** pig here and sleep? (Implied: are
 we not going to hunt anymore today?)

Example (204) below is taken from a hunting story and shows a span of text with chiasitic structure, marked by indentation and the letters: a, b, c, d, c', b', a' (the apostrophes show that the referents are the same but are referred to by different forms). It illustrates how the demonstratives clue the reader in as to who is doing what in contexts of ambiguity. Various groups of people are identified as A, A-1, A-2, and B.

- (204)a. (They) (A) arrived at (the area) where the people (B) were crocodile hunting.
 b. Having arrived, some of the people (A-1) slept midway on the trail.
 c. Others (A-2) arrived at the place where people were hunting
 crocodiles in the swamp. (They) (A-2) slept and it became daylight.
 d. Earlier the ones (A-1) who slept on the trail had said, "We will meet
 you in the morning at dawn".
 c'. So the latter people (*nidi nim*) (A-2) arose and were going.
 b'. After that, the former people (*lada lam*) (A-1)
 merged from the upstream edge (of the jungle).
 a'. Then they all (A) joined together and were on their way again.

The paired demonstratives skip over the central sentence (d) of the chiasitic structure and refer back to the paired groups 'some...people' (A-1) in sentence (b) and 'others' (A-2) in sentence (c). The demonstratives *nidi nim* 'these particular' or 'the latter' in sentence (c') refer to the most recently mentioned people (A-2) who slept in the swamp, whereas *lada lam* 'those particular' or 'the former' in sentence (b') refer to the earlier mentioned people (A-1) who slept midway on the trail.

5.6 OTHER DEICTICS

Four more deictics will be illustrated now.

TABLE 13: OTHER DEICTICS

DEICTIC	Rough translation	DIRECTION	AREA of OPERATION
<i>laha</i>	like that	ANaphoric	sentence
<i>neha</i>	like this	CATaphoric	sentence
<i>ame</i>	before-mentioned	ANaphoric	above sentence
<i>labi</i>	like that	ANaphoric	all levels

5.6.1 THE DEICTIC *laha* ‘like that’, ‘that’

The deictic *laha* can be used as a connector between sentences and as such is inflected like any medial verb. It is a backward pointing (ANaphoric) deictic. Examples (205) to (212) below show this. The most frequent use is illustrated in (205), where it is the quote closure.

- (205) *Paulus-at ab gago-h-am. / “...” / laha-me*
 Paulus-ERG INDIC say-REAL-INDIC like.that.ANA-SA
gago-he-mu / i-ho Itbuluh-ti ab male-h-am.
 say-DA-because 1PL-ERG Itbuluh-and INDIC not.want-REAL-INDIC
 Paulus said, “...” Because he said **that**, Itbuluh and (I), we were against it.

In normal speech, some speakers come to a full stop after direct quotations and start the new sentence with *lahame*, using it as a tail-head linking device. Others do not pause, but rather continue sentence intonation well past the quote-closing margin as shown in example (205), pausing only after the margin, in the present example after *gagohe-mu* ‘because (he) said’.

- (206) *Laha-ha bak la-m Buto-t fa ozo-ha*
 like.that.ANA-DA NOM that-ABS Buto-ERG ITR think-REAL
vaba-mu / a-m elae Aseda bake tau gago.
 NEG-SA 3SG-GEN bro.in.law Aseda toward to.join.in speak
 Buto considered **that** situation, decided (lit. thought and thought until he didn’t think about it anymore) and then joined his brother-in-law Aseda in asking for recompense.

In example (206) above the *lahaha* deictic refers back to a span of text that contains four clauses describing the narrator’s reaction when he learned of the incident which caused Buto’s reaction.

- (207) *Laha-na Tuha-t geamu ab beo-h-am.*
 like.that.ANA-CONTRA Tuha-ERG ignored INDIC strike-REAL-INDIC
 But Tuha ignored **that** and struck (him).

When the contraexpectation (CONTRA) suffix *-na* is added to *laha*, this deictic is best translated ‘but’. Prior to example (207) a proposal was made to Tuha that he not hit the medical worker any more, as he was on the ground injured severely. In this case the *laha* stands in place of the whole proposal: ‘Don’t hit the one who has already been injured severely’.

- (208) *Laha-da lab-e gi fei-da-ha vab-da*
 like.that.ANA-PTS there-ERG ATN forget-CONT-REAL NEG-PTS

lab-e ut viso-i ab emoe-h-am.
 there-ERG club pick.up-SA INDIC run-REAL-INDIC
 Being **that kind** of person, and not just ignoring what he saw, (he) picked up
 his club and ran.

In example (208) *laha* stands in place of the previous span of text as well. 'Being that kind of person' refers back to the fact that he just got a glimpse of the man who broke his father's arm and he wasn't going to let the opportunity of getting even pass by him.

Sometimes, as demonstrated in example (209), the post-quote margin is shortened from *lahame gago hemu* 'because (he) said like that' to *lahahat* 'having said like that'.

- (209) *Laha-hat i-ho dam totbaho-t gago...*
 say.like.that.ANA-DA 1PL-ERG people other-ERG say
 When (he) **said that** we others said...

- (210) *Laha-m bak-e tuena lab-e i-ba*
 like.that.ANA-IRR NOM-ERG foreigner there-ERG 1PL-DAT
neha, / "Kelambu ba u-ho lab-a a voo-u /
 say mosquito.net later 2PL-ERG there-DAT PROH throw.away-SA
bako a i-mule", laha-ha bak.
 outside PROH sleep-PROH say.like.that.ANA-REAL DECL
 For **that** reason the foreigner has said, "Don't leave your (mosquito) nets
 (behind) and sleep outside (of them)", he **said**.

In example (210) above *laha* stands for the whole previous span of text that gives the reasons why people should not leave their mosquito nets behind in their houses when they go off to their gardens and sleep there.

- (211) *Laha-m vaba-e-meam i-ho vedi kelambu*
 like.that.ANA-IRR NEG-ICP-COND 1PL-ERG instead mosquito.net
gi lab-a vâasu / fa vi vua vahu-da-meam...
 ATN there-DAT hang.up ITR DIR fire burn-CONT-COND
 If (we) do not do **that** (i.e. carefully choose the place to hang mosquito nets), if
 we instead just hang our mosquito nets there and then immediately afterwards
 build fires under them...
- (212) *Gi dihasi bohe la-lo. // Bume-a la. //*
 ATN next.day fish go-PROSP bird-DAT go
Laha-m-da la-m gi minggu nohubak-e
 like.that.ANA-IRR-PTS that.ABS ATN Sunday jungle-DAT
behàs-di fa le-m dama-t mozo.
 two-STATIVE.SA ITR come-IRR men-ERG DES
 Day after day (they) go fishing. (They) go bird hunting. Being **that kind** of
 people (i.e. fishing and hunting), they are people who go to the jungle for two
 weeks at a time and then return.

5.6.2 THE DEICTIC *neha* 'like this'

The deictic *neha* can be used as a connector between sentences and as such is inflected like any medial verb. Whereas *laha* was backward pointing (ANaphoric), *neha* is forward pointing (CATaphoric). Examples (213) to (218) show this. The most frequent usage comes in the pre-quote margins of conversational texts. Example (213) shows this use.

- (213) *Mei-t neha, "E-m abo bie-ha".*
 IDF-ERG like.this.CAT 1SG-ABS really do.not.know-COMP
 Someone (said) **like this**, "I really don't know".

In example (213) above *neha* has been glossed 'like this'. Its full form is *nehame gago* 'say like this'.

- (214) *Làhàmu e-ho neha-su duzu*
 CON.therefore 1SG-ERG like.this.CAT-DIR.toward.object stand
vi ozo-la.
 DIR think-CONT
 Therefore I stood and was thinking **this** (i.e. as follows).

In the story from which example (214) is taken, the narrator tells what he thought in the span of text that immediately follows (214).

In example (215) below the narrator follows the text given here with a detailed exposition of how they would dispose of people who had been murdered.

- (215) *I-ho koai git modi baumsu-hu bak la-m*
 1PL-ERG corpse mistake cause bury-REAL NOM that-ABS
neha-ha-lab-e git modi baumsu-hu bak.
 like.this.CAT-REAL-there-ERG mistake cause bury-REAL DECL
 As for our having buried the corpse improperly, **this** (following explanation) is the reason why we buried the corpse improperly.

- (216) *O-ho neha-me ozo-m vaba? // O-m*
 2SG-ERG like.this.CAT-SA think-IRR NEG.RHQ 2SG-GEN
ai da lada lab-e fa ote-he bak.
 father man PTS there-ERG ITR kill-REAL DECL
 Did you not consider **this**? That particular man is the one who killed your father.

- (217) *Laha-na i-ho vedi neha-da.*
 like.that.ANA-CONTRA 1PL-ERG instead like.this.CAT-CONT
 But we were instead doing **this**.

In example (217) above *laha* refers to what they didn't do, which is proposed in the span of text prior to (217), and *neha* refers to what they did do, as told in the span of text that follows it.

Example (218) below shows how Bauzi lists items in a discourse. Bracketing with *neha...laha* is a common discourse device.

- (218) *Korano-m dae aii-m-da neha. // Fata.*
 chief-GEN words hear-IRR-PTS like.this.CAT Fata

Labi Ihi. Labi Auaha. Labi Baktom. Labi Namkeabe.
 CON Ihi CON Auaha CON Baktom CON Namkeabe

Labi Ihame. Gi duta labihasu-ho.
 CON Ihame ATN women those.ones-COMP

The ones who listen to the chief's words are **these**. Fata, and Ihi and Auaha, and Baktom, and Namkeabe and Ihame, **just those** women.

5.6.3 THE DEICTIC *ame* 'the before-mentioned (b.m.)'

The next deictic to be discussed is the discourse global deictic *ame*. This deictic can point to core participants or to props. But unlike *neha* and *laha*, it is not inflected the same way. It does occur with the particularising suffixes *-da* and *-na*.

Example (219) below is taken from the text about the girl who died from a poisonous snakebite. Throughout the text she is referred to with this deictic plus the noun *koai* 'corpse'.

- (219) *Làhàmu lab-e vou la-ha-lab-e le ame*
 CON.therefore there-ERG with go-REAL-there-ERG go.SA b.m.
koai la-m vou le nuzuba ozoho-ba lab-a ab
 corpse that-ABS with go.SA floor end-CL.flat there-DAT INDIC
esu-h-am.
 put.down-REAL-INDIC
 Therefore (we) carried **that** (before mentioned) corpse from there and put it down on the end of the floor.

The deictic *ame* acts like a spotlight and moves around throughout the discourse putting different participants and props in focus. In example (220), which is taken from the same text as (219), the spotlight has moved off the corpse and onto a rodent type of animal. For several spans of text, whenever this animal is referred to, it is referred to with a common noun plus the deictic *ame*.

- (220) *I-mo ame ahagina la-m ohu-me à-se.*
 1PL-SUBJ b.m. marsupial.type that-ABS cook-SA eat-SUBJ
 Let's cook **that** (before-mentioned) marsupial and eat it.

In example (221) below, which is taken from a letter, after the woman has been introduced with a full noun phrase, throughout the remainder of the time that the spotlight is on her she is referred to with *ame* plus a common noun.

- (221) *Labi ame duta la-m a-m ai-at fa vi*
 CON b.m. woman that-ABS 3SG-GEN father-ERG ITR DIR
ve vou ita-ho.
 take.SA with flee-REAL
 And as for **that** (before-mentioned) woman – her father took her back and has fled with her.

Example (222) below is taken from a letter where the author is requesting a list of builder's tools. After he asks to borrow them, he refers to the entire list with the deictic *amena* 'the things which (I) just now asked you for'.

- (222) *Labi ame-na la-m num mo-me / neà-di fa*
 CON b.m-PTS that-ABS house build-SA good-STATIVE ITR
o-ba naeda-te lo-m-na gago-ho.
 2SG-DAT owner-DAT give-IRR-PTS say-REAL
 After (we) finish building the house, (we) promise (we) will give **those things**
 back to you, the owner.

5.6.4 THE DEITIC *labi* 'like that'

Another backward pointing (ANaphoric) deictic is *labi*. In discourse *labi* functions as a connective linking one paragraph to another. It also links larger chunks of discourse together. But it can operate on lower levels as well. This deictic can also be inflected in the same way which *neha* and *laha* can.

In example (223) below, *labi*, as a deictic referring back to everything between the quotation marks, functions as the Undergoer of the verb 'think'. Then in (224), as a deictic referring back to an entire sentence, it functions as an Undergoer of the verb 'do'.

- (223) *E-ho ozo-m "O-m abo gi des, /*
 1SG-ERG think-IRR 2SG-ABS really ATN head.of.region
 A V U----->
akati e-m dek gi teo
 how.come 1SG-GEN string.bag ATN without.pay
 >----->
va-he-la", / laha-me e-m a
 take-INTER-RHQ like.that.ANA-SA 1SG-ABS secretly
 >-----| A
labi ozo-da.
 like.that.ANA think-CONT
 U V

In my opinion (lit. I think) you are an area chief, so what is the big idea that you have taken my string bag without paying me for it; **that** is how I am thinking underneath.

- (224) *Abo dambusao-ti lahi-ti korano-m dae aii-m*
 really adult-and women-and chief-GEN words hear-IRR
 A U V
kaio. // Dam la-m labi mode-m neà-o?
 NEG people that-ABS like.that.ANA do-IRR good-INTER
 A U V

Neither men nor women listen to the chief's words. Is it all right for those people to do **that**?

It frequently occurs sentence-initially as a linking device recapitulating the previous span of text:

- (225) *Labi-ha-du-me kelambu la-m gi*
 like.that.ANA-REAL-CONT-SA mosquito.net that-ABS ATN

fai-di ukbe sete-m bak.

bad-STATIVE tear lost-IRR DECL

Continually doing **that** (i.e. hanging it up in various places and sleeping under it), the mosquito net will become bad and become torn up and useless.

- (226) *Dam ni-m korano-m dae gi aii-ha vama-di*
people this-ABS chief-GEN words ATN hear-DA one-STATIVE.SA

sete. // Labi mode-m dam-at mozo. // Dam
lost like.that.ANA do-IRR men-ERG DES people

la-m labi mode-m-lab-e // gereja mo-m
that-ABS like.that.ANA do-IRR-there-ERG church build-IRR

mou-du-me mozo.
refuse-CONT-SA DES

Because these people listen one time to the chief's words, (those words) are lost.

That (listening and forgetting the chief's words) is the kind of people (they) are. Because those people do **that** (listening and forgetting the chief's words), (they) do not want to build the church.

It occurs after a list as an encapsulating device:

- (227) *Labi surat [e-ho amu lo-ho-dà]-ti [ba*
CON letter 1SG-ERG earlier give-REAL-PTS-and later
lo-ho-dà]-ti [neo etei lo-ho-dà]-ti labihasu
give-REAL-PTS-and next today give-REAL-PTS-and those.ones
o-ho ve aa-me fa amomoi toe-me e-ba
2SG-ERG take.SA see-SA ITR another write-SA 1SG-DAT
it olu-le.
DIR send-IMP

So as for the letter [which I earlier gave you], and [the one which (I) later gave you], and [the one which (I) have given to you just now] – you take **those**, read (them) and then (you) write me another (letter) and send (it) back to me.

Example (227) above is a closing taken from a Bauzi letter. The *labi* at the beginning is functioning as a linking device connecting the closing with the rest of the foregoing body of the letter.

In example (228) below the deictic *labi* is used to connect this span of text containing new participants with a previous long section containing a number of paragraphs.

- (228) *Labi dam-at beà-da-m-di la-m i-m dam*
CON people-ERG fight-CONT-IRR-SIM that-ABS 1PL-ABS people
totbaho vabi-li gi bak iub-a le na mee-da.
some not.know-ICP.SA ATN place there-DAT go.SA thing do-CONT
So at the time that the people were fighting, some of us didn't know about it as we had gone to over there and were busy working.

The deictic *labi* is also used to close a section as it does in (229a). Prior to (229a), the storyteller has narrated the events of a village-wide fight. Then comes the summary in

example (229a). The next paragraph, which brings a new participant onto the story-line, uses a *labi* as well. See (229b).

(229)a. *Labi im zoho la-m beà-du-me / ab vaito-h-am. //*
 CON story part that-ABS fight-CONT-SA INDIC cut.off-REAL-INDIC

b. *Labi Busda Itabe vim le azi-be...*
 CON Busda Itabe DIR go.SA stay-SA

Now as for that part of the story, (they) fought and it stopped. // **Meantime**
 Busda had gone upstream to Itabe and stayed there a while...

Example (230) below shows what happens when a participant is brought back onto the story-line after being off it a short time.

(230) *Labiha-da-m-di la-m Busda-t / e kogoi*
 like.that.ANA-CONT-IRR-SIM that-ABS Busda-ERG red.fruit raft
vou li tu / nazoho vala-me / num-a zitu aida.
 with come.SA beach things unload-SA house-DAT climb.up stay
 While **that** was happening (i.e. whole of the discourse up until this point),
 Busda in the meantime brought his raft loaded down with red fruit, beached it,
 unloaded his things, climbed up to the house and was staying (there).

6. PARTICIPANT REFERENCE

This section will describe participants in Bauzi narrative discourse, how Bauzi narrators introduce these participants, how they keep track of them, how the participants are dismissed from the story, grammatical cues, and rules.

In a Bauzi narrative text, the narrator usually introduces who or what the story will be about in his/her first utterance. This will be the principal character. The 'principal character' is a better term than 'principal participant' because the latter term implies that this person is the chief participator in the story, and this is not necessarily so. The principal character may or may not say or do anything throughout the narrative. For instance, the principal character might be manifested throughout the narrative as one to whom things are done and only serve as the Undergoer.

As well as there being a principal character, a Bauzi narrative will have major participants who play a vital part in the outcome of the story. Then there are minor participants who may do little more than serve as props in the story, having no great influence on the outcome.

6.1 THE PRINCIPAL CHARACTER

In narrative discourse, the principal character is introduced at the beginning of the narration by the title of the story. This title may be in the form of a nominalised clause followed by the nominalising particle *bak*. The nominalised clause then functions as the Undergoer of the verb *vamea* 'to tell', which has the prospective (PROSP) aspect suffix *-lo* attached. If the nominalised verb is transitive, both core arguments will have overt references. These vary: full noun phrases, proper names, proper names plus pronouns, a kinship term. If the nominalised verb is intransitive, then the one core argument will have an overt reference in one of the same forms as above.

At other times the narrator uses a nominalised clause followed by the nominalising particle *im* 'words' instead of *bak*. This nominalised clause also functions as the Undergoer of the verb 'tell'.

Sometimes the narrator will give a summary of the main event of the story within the nominalised clause. In myths or folktales, often the principal character is not named, but the opening of the discourse is formulaic: 'Is this not what people have told us?' If the narrator does not use this formulaic opening, another way that he may introduce the principal character is in the opening sentence using the continuative aspect. In other words, there need not be a formal opening stating what the story will be about. Rather the narrator can launch into the setting. For instance: 'We Muà people were living at the Sigohe River.' In the setting he may introduce the major participants in the form of existential clauses such as: 'there was this man and his wife staying in their house'.

Explanatory discourse is also formulaic in its opening: 'Is this not what people have told us'. In a procedural discourse the opening usually contains an introduction of the principal prop. For instance, in a procedural discourse on 'how to pound sago', the opening is: 'I will tell you how we pound sago'. Or in the procedural discourse on making bows, the narrator starts out with a rhetorical question: 'Is this not the way that we make bows?'

Any of the above introducing clauses, whether they are existential clauses or rhetorical questions, are off the event line of the story. They precede either the setting or the first event.

Examples (231) through (233) are story titles that appear at the beginning of narrative texts. They are expressed in two-argument transitive clauses using the speech verbs 'tell' and 'say'. Usually the speaker/narrator is referred to via zero anaphora, that is he/she is presupposed in the narrative.

- (231) [*Auna-m data Olofa elo-ho bak*] *vamea-lo*.
 Auna-GEN child Olofa die-REAL NOM tell-PROSP
 (I) am going to tell about [Auna's child Olofa having died].
- (232) [*I-ho Esi-ti im ot vamea-ia-me / fa*
 IPL-ERG Esi-and words RCP tell-ITR-SA ITR
neà-de-he im] *vamea-da-lo*.
 good-STATIVE-REAL words tell-CONT-PROSP
 (I) am going to tell about [Esi and I having had words with each other
 and then becoming reconciled with each other].
- (233) [*E-m vem fai-di / digehi-so fima-me / doho*
 1SG-GEN dog bad-STATIVE.SA bow-CL.stick divine-SA pig
ote-m bak] *gago-lo*.
 kill-IRR NOM say-PROSP
 (I) am going to talk about [the situation of my dog having become
 defiled and (my) having divined (why it became defiled) with the
 use of a bow and how (I) was able to take (it) hunting for pigs
 again].

Most often the principal character is introduced by a fronted topic in the form of a nominalised clause. This was illustrated for the 'death' text in example (231) above. After the full noun phrase: 'Auna's child Olofa' in the formal opening sentence of the story, the

narrator uses a full relative clause with both arguments overtly mentioned to refer to the child in (234) below.

- (234) ...*dam* [*ame data mum-at vee-he-na la-m*] *iheba esu...*
 people b.m. child snake-ERG bite-REAL-PTS there-ABS canoe put
 ...people had put [**that child that the snake had bitten**] into the canoe...

Thereafter the principal character becomes nothing more than a prop for the remainder of the text and is simply referred to by the noun phrase: 'that corpse'.

In example (235) below the narrator of a Bauzi myth uses the formulaic rhetorical question to open the story and then launches into the setting where he uses the continuative aspect on the verb and introduces the principal character.

- (235) *Ba dam neha tai. // Amu ahagamai si ous-da.*
 later people like.this RHQ earlier frog.type catch put.in.place-CONT
 Is this (CAT) not what people have told to us. At first (they) would catch an
ahagamai frog type and put it in place.

Example (236) shows a narrative text with does not contain the formulaic opening. It simply begins with an introduction of the principal characters using existential clauses.

- (236) *Dam behàsu. // Lahi behàsu.*
 men two women two
 There were **two men**. There were **two women**.

In example (237) below the narrator begins the story without a formal opening by launching into the setting in which he introduces the principal characters. In both (236) and (237) the principal characters turn out to be major participants as well.

- (237) *Utozo a-m lahi-ti zum li / i-ba*
 Utozo 3SG-GEN wives-and DIR.downstream come.SA 1PL-DAT
dae-t be-à-da.
 words-MNS fight-ITR-CONT
Utozo and his wives came downstream and commenced arguing with us.

6.2 MAJOR PARTICIPANTS

Bauzi narratives have one or more major participants apart from the principal character. These major participants may pervade the entire discourse. Or they may have influence only for a span of text and then drop out temporarily or permanently. They may or may not have influence on the principal character. There are at least six ways in Bauzi of referring to major participants – by noun phrases, by free pronouns, relative clauses, combinations of any of the preceding, by switch-reference morphology on the verb, and by zero anaphora.

In the story of the death of Auna's child Olofa, the narrator and two of his friends are walking along when they hear wailing coming from the direction in which they are travelling. From this point forward in the story, the viewpoint is that of the narrator and his friends who are major participants. They interact with the people who are preparing the corpse for burial. In this same text much of the narration is taken up with the account of the interaction between the narrator and his friends and other participants who favour the old way of doing things. There are three individuals singled out as major participants who have conflicting

interchanges. At one point the whole village splits up into two opposing groups and the two groups themselves become major opponents of each other.

Example (238) below shows that when the first major participants in the 'death' text were introduced, it was in the setting and a pronoun plus two proper names were used.

- (238) *I-m Omtovasea-ti Aamsu-ti Dau-m na nib-a*
 1PL-ABS Omtovasea-and Aamsu-and Dau-GEN thing here-DAT
mee-du-me...
 to-CONT.PL-SA
Omtovasea, Aamsu and I were doing things for Dave here...

Thereafter when the narrator and his friends are referred to with an overt nominal, a pronoun is used as in example (239) below.

- (239) *Làhàmu i-ho ab ot gago-i-da-m-am.*
 CON 1PL-ERG INDIC RCP say-ITR-CONT-IRR-INDIC
 Therefore **we** said to each other.

For routine tracking, once a major participant has been mentioned overtly, he is then referred to via zero anaphora, that is, there is no overt reference. Example (240) below exemplifies this.

- (240) *Labi i-ho lab-a ot tahi-a-me / suto-ba*
 like.that 1PL-ERG there-DAT RCP meet-RCP-SA bridge-CL.flat
lab-a vou vim bio-u / zie lab-e vim
 there-DAT with upstream cross.over-SA path there-ERG upstream
la-da-meam / aa-ha...
 go-CONT-when see-DA
 And like that **we** met up with one another, (we) crossed over the bridge there with (the corpse), and from that path (we) continued going upstream and when (we) looked...

In example (241) below Itbuluh is considered to be one of the narrator's group since he is from the same clan. Once a group is referred to collectively with a first person plural pronoun, thereafter if one acts independently and is brought onto the story-line, this is done by using a proper name in Ergative case.

- (241) *Làhàmu Itbuluh-at gago, "I-mo num Lobio-bada na*
 CON Itbuluh-ERG say 1PL-SUBJ house Lobio-PTS thing
ohu-m num lab-a esu..."
 cook-IRR house there-DAT place
 Therefore **Itbuluh** said, "Let's put (the corpse) in Lobio's cook house..."

In another text entitled 'The fight with Utozo and his wives', the narrator recounts first the interchange of dialogue that takes place between himself and another family and then between himself and people from another village who have sided with the family. The first of the major participants in that text are introduced with a proper name and kinship term. See example (237) above. The Noiadi people, represented by the pronoun *iba* 'us', is presupposed in the narrative. No proper names are used throughout the text to refer to the

narrator or the Noiadi people of which the narrator is a member. The narrator who represents the Noiadi group refers to himself and his people with pronouns only. After the opening as shown in (237) above, the participants 'Utozo and his wives' are brought into the main event of the story simply with a demonstrative pronoun in the Ergative case.

- (242) *Lab-e neha*, "[U-m doho fai-na à-m-na] doho
 there-ERG say 2PL-ABS pig bad-PTS eat-IRR-PTS pig
mei-bada nehu ba budua-li / ote-me / à-m-dia ba
 IDF-PTS fat later big-ICP.SA kill-SA eat-IRR-time.of later
u-ba lu à-m kai."
 2PL-DAT give.SA eat-IRR NEG
 Those (people) said, "As for [you who eat skinny pigs (Implication: criticism)],
 when someone else's pig becomes big and with fat and (they) kill it, (they)
 definitely will not give any of it to you to eat."

Often when a major participant is temporarily dismissed and then brought back into the story-line, the narrator employs a noun phrase modified by a descriptive verbal clause. The following example is from the folktale about the 'rodent-woman'. One of the major participants is the real woman whom the rodent-woman buries alive. After she is temporarily dismissed because of the rodent-woman having gained prominence, she is brought back on stage. Example (243) below depicts how the narrator did this.

- (243) *Labi [ahagat nam nib-e nib baumsu-hu nam]*
 CON rodent woman here-ERG here bury-REAL woman
nib-e-t amu di lab-e-t biha-bu
 here-ERG-ERG earlier time.of there-ERG-ERG cassowary.bone-CL.big
nib vi baumsu.
 here DIR bury
 Meanwhile [this woman whom the rodent woman had buried here
 earlier], at the time (she) was buried, (she) had been buried along with a
 cassowary thigh bone. (Implication: she was not left helpless, she could dig
 herself out with this)

In summary, a major participant can be brought into the main event line of a story via the following means: proper name, proper name plus pronoun, proper name plus kinship term, pronoun only when its referent is presupposed in the text (such as the narrator), a demonstrative pronoun, and a descriptive verbal clause modifying a noun phrase.

6.3 MINOR PARTICIPANTS

Minor participants do not have much influence on the major participants or on the course of events. As with major participants (see §6.2), there are at least six ways in Bauzi for referring to minor participants. For example, in the 'death' text, two minor participants are introduced into the story-line by using a kin term along with a relative clause. These minor participants are the spirits of the dead girl's deceased great-grandfather and her deceased grandfather. They are introduced as GOals or the ADDressees of the verb 'call out' in example (244) below.

- (244) *Bud-da-m-lab-e / a-m tai [amu*
 call.out-CONT-IRR-there-ERG 3SG-GEN grandfather earlier
elo-ho-da] vi gagu bud-da. // Labi Auna-m
 die-REAL-PTS DIR say.SA call.out-CONT like.that Auna-GEN
ai [elo-ho-na] lab-a laha gagu bud-da.
 father die-REAL-PTS there-DAT likewise say.SA call.out-CONT
 Calling out, (they) were calling out to **her great grandfather [who had died earlier]**. And then (they) were calling out to **Auna's [dead] father there**.

Neither of these participants have any impact on the major participants or the story. They are mentioned in the above circumstances and then disappear as if they had never been mentioned in the first place.

Another way minor participants are introduced into the story-line is by using a kinship term plus proper name. In example (245) below a minor participant is introduced as Undergoer.

- (245) *Mumso-t gago, "A-m adnamat Yosina abo Kes*
 Mumso-ERG say 3SG-GEN daughter Yosina definitely Kes
bake lo-lo-mozo".
 to give-PROSP-DES
 Mumso said that (he) was going to give **his daughter Yosina** to Kes (as a wife).

Often minor participants are brought in via direct or indirect speech as seen in examples (245) above and (246) below. In (246) the minor participant 'Knban's pig' is a forefronted noun phrase functioning as Topic for the sentence and functioning in the clause as an Undergoer.

- (246) *Labi dam lada lab-e iba neha "Knban-am doho*
 like.that people PTS there-ERG 1PL-DAT say Knban-GEN pig
i-ho a do-u à-ha".
 1PL-ERG secretly shoot-SA eat-COMP
 Like that those particular people said to us, "As for **Knban's pig**, we secretly shot (it) and ate (it)".

Often minor participants are not introduced as Actors of clauses, rather they are introduced as Undergoers. This is done via both noun phrases and relative clauses. But in example (247) below, the minor participant, a 'ground cuscus', is first introduced into the story-line in a process clause.

- (247) *Labi lab-a nusu-ha / fa ab*
 like.that there-DAT sit-DA ITR INDIC
loke-bu-le-h-am. // Labi dam
 ground.cuscus-CL.big-ICP-REAL-INDIC like.that people

ahebu ame ahagina-bu la-m vi do-du-me...
 all b.m. rodent-CL.big there-ABS DIR shoot-CONT-SA
 And when (the bird) sit down there (on the stem of the *ahu* leaf), (it) **turned into a large ground cuscus**. Then all the people began shooting **that before-mentioned big rodent type**...

Throughout the remainder of text, whenever the ground cuscus gets acted upon, if it has an overt reference, it is usually with a noun phrase or relative clause: 'that before-mentioned rodent' or 'that spirit of the child killer'. Later minor participants are referred to via zero anaphora as in example (248) below.

- (248) *Labi dam ahebu ame ahagina-bu la-m vi*
 like.that people all b.m. rodent-CL.big there-ABS DIR
do-du-me / ote-me / ab vou le-h-am.
 shoot-CONT-SA kill-SA INDIC with come-REAL-INDIC
 Then all the people began shooting **that before-mentioned big rodent type**, and (they) killed (it) and (they) brought (it) back.

In example (249) below there is no grand exit for a minor participant.

- (249) *Laha-me gi otesi otesi-da-ha vaba-mu / ahagina*
 like.that-SA ATN debate RED-CONT-DA NEG-CON.because rodent
la-m gi baktom-ba lab-a voo-u
 there-ABS ATN open.ground.area-CL.flat there-DAT throw.away-SA
bis-da.
 lie.down-CONT
 Like that (they) continually debated until (they) stopped and as for that rodent, (they) just threw (it) there on the ground and (it) just lay there.

Sometimes a minor participant is brought into the main event line of the story as an Actor just for a very short time. Usually he is not in a dominant role (see §3.2.5 above). In example (250) below the common noun 'people' is in such a role.

- (250) *Dam ame data [muma-t vee-he-na] la-m ihe-ba*
 people b.m. child snake-ERG bite-REAL-PTS that-ABS canoe-CL.flat
esu / tuena bake vou vim le-so-me mode-ha /
 put.SA foreigner to with upstream come-CNT-SA do-DA
fisiva-he-mu / fa vou zitu.
 die-DA-CON.because ITR with climb.up
People put [the child which the snake had bitten] into a canoe and (they) attempted to bring (her) upstream to the foreigners when because (she) died, (they) brought her back (up to the house).

In this span of text represented by example (250) above, the participants represented by "people" are nameless. They don't really figure in the final outcome of the story.

To summarise, minor participants can be brought into the story-line via noun phrases. Often they are Undergoers rather than Actors themselves. If minor participants are Actors they are not dominant ones as was seen in example (250) above.

6.4 GRAMMATICAL CUES

Since Bauzi does not require an obligatory Actor, sometimes grammatical cues must be relied upon in order to clearly identify the participants at each point in the text. One of these cues is the different actor suffix *-ha* which occurs on non-final verbs only. (This is more fully described in §2.3.2.) Other grammatical cues include the interclausal connective *-he-mu* ‘because’, the temporal relation connective *-da-meam*, and the sentence connective *lâhâmu* ‘therefore’. New participants are brought into the story-line for the first time or as reinstatements following those cues. In spans of text containing mostly dialogue, there are structural boundaries such as the quote margins that cue the hearer as well. Another cue is the Ergative case suffix which is attached to noun phrases and the Ergative case pronouns which tell the hearer: “this participant is dominant now”. Examples showing each of these grammatical cues now follow.

6.4.1 THE DIFFERENT ACTOR SUFFIX *-ha*

When the different actor suffix occurs on a verb, either a new participant will be introduced or an old participant will be reinstated in the story-line. Sometimes the Actor will be explicit, sometimes not.

- (251) *Ahamte Aseda [Noiadi lab-a aida-m-dà]-t fa*
 firstly Aseda Noiadi there-DAT stay-IRR-PTS-ERG ITR
Danao nib-a li mode-ha / Mumso-t gago,
 Danao here-DAT come.SA do-DA Mumso-ERG say
 “E-m adnamat Yosina abo Kes bake lo-lo-mozo”.
 1SG-GEN daughter Yosina definitely Kes to give-PROSP-DES
 At first when **Aseda** [who was one who stayed there at Noiadi] returned (DA)
 here to Danao, **Mumso** said, “As for my daughter Yosina – (I) am definitely
 going to give (her) to Kes”.

In this part of the text Mumso is a new participant and he is introduced with a proper noun and marked as Speaker (SPK) by the Ergative case suffix *-t*. The different actor suffix *-ha* occurs on the verb preceding his introduction.

- (252) *Le / ae vahe-me / vou le-so-me mode-ha /*
 go.SA bushknives stack.up-SA with come-CNT-SA do-DA
dam-at mali / vou es-da.
 people-ERG be.against.SA with stay-CONT
 (He) having returned (to Noiadi), (he) stacked up bushknives and (he) was
 about to return (DA) with them when **people** were against it and as a result
 (they) were keeping (him) there.

Example (252) illustrates one of the ways that the narrator brings in the element of conflict and gets it onto the main line of the story. One could say that all information following the *-ha* suffix is foreground information and all that before is background information. So the narrator has a way of cueing his listeners in on what is prominent information.

In example (253) below the *-ha* cue is important in ascertaining who the underlying Actor is. But one gathers that the narrator is not so much interested in who the speaker is in this case as in what is said.

- (253) *Neo li aii-ha, / "Dam ai fai-na Aseda-m fa*
 next come.SA hear-DA people father bad-PTS Aseda-GEN bone
agute." // Lànhamu lab-e ab tom nohi-da-m-am.
 break CON there-ERG INDIC up charge-CONT-IRR-INDIC
 (Buto) having next arrived, when (he) listened (DA), (or: he heard
 someone say) (someone) said "People have broken our old father Aseda's
 arm". Therefore (DA) (Buto) going from there, (he) was charging up to
 where the (people were).

In example (253) there is no explicit speaker of the words quoted. It is not important. It is what is said that is most important. But at the same time there is a grammatical cue to the participant change.

6.4.2 THE INTERCLAUSAL CAUSAL CONNECTIVE *-hemu*

This interclausal connective is fully explained under §2.3.2.2.

- (254) *...laha-me ozo-ha / dam-at ab gago-ham. //*
 like.that-SA think-DA people-ERG FV say-REAL.FV
"Dam bas-eà Vadu dali-ho. // Ab elo-lo
 people teenager-CL.little Vadu strike-COMP INDIC die-PROSP
mode-m-am tame" / Laha-me gago-hemu /
 do-IRR-INDIC EMP like.that-SA say-DA.CON.because
e-ho vedi gi nehi ozo...
 1SG-ERG think.mistakingly ATN like.this think
 ...when (I) thought (DA) like that, **people** said, "Someone has struck the
 young man Vadu. (He) is definitely at the point of dying". Like that because
 (they) said it (**-hemu**), I thought mistakingly like this (CAT)...

The connective *-hemu* alerts the hearer to two facts. First Vadu's dying is the stimulus for the following assumption made by Esi. And secondly it clues the listener in to the fact that Esi (referred to by the pronoun *eho* 'I') is a new participant, different from the speaker in the previous clause.

- (255) *Labi fem la-m fike-hemu / fa zuho-u /*
 like.that banana there-ABS cut.down-DA.CON.because ITR turn.about-SA
ae ba-da viso-i / fa ab vou vim
 bushknife CL.flat-PTS pick.up-SA ITR INDIC with upstream
bio-h-am.
 cross.over-REAL-INDIC
 And so because (they) cut down those bananas, (Vaomei) turned around,
 (he) picked up his bushknife, (he) crossed over the river upstream.

6.4.3 THE INTERCLAUSAL TEMPORAL CONNECTIVE *-dameam*

New participants are introduced after the continuative aspect and simultaneous action suffixes *-da-meam*. Actually *-dameam* is a contraction form of *-dameammodeha* or *-dameam aaha* which has the meaning 'doing X when Y happened'.

- (256) *I-m es-da-meam / Esi-t amu bihi la-m*
 1PL-ABS stay-CONT-SIM Esi-ERG earlier cassowary there-ABS
feliki-t si...
 nylon.cord-INST catch
 We were staying when Esi earlier had caught that cassowary with a piece of nylon cord...
- (257) *E-m ahu fai-di go-da-meam / utaaso-bu-t*
 1SG-GEN heart bad-STATIVE go.about-CONT-SIM branch-big-ERG
subati / e-m dali-ha.
 fell.SA 1SG-ABS hit-COMP
 (I) was going about with a sad heart when a big tree branch fell down and struck me.
- (258) *Ti ohu-da-meam / aa-ha / Uluvai i-ba ab*
 sago cook-CONT-SIM see-DA Uluvai 1PL-DAT INDIC
zum le-h-am.
 downstream come-REAL-INDIC
 (We) were cooking sago when (we) looked (and saw that) Uluvai had come downstream to us.

6.4.4 THE HIGHER LEVER CONNECTIVE *lànhamu*

The connector *lànhamu* also signals that a new participant is being introduced or an old one is being brought into the main line of the story again. This connector operates mostly within the paragraph between sentences. In fast speech this connector seems to be connected to the sentence preceding it rather than to the beginning of the following sentence. There is more of a pause following the connector than preceding it. Then at other times there is a full sentence ending intonation pattern before it and in those places it fits better at the beginning of the following sentence.

This grammatical connector tells the hearer three things: (1) that what precedes it is the reason/motivation for the result or response that follows; (2) that the coming information is more important than the preceding – it is what moves the story along, and (3) that there will be a new participant.

- (259) *Sembina beo-me ab nusu-ham. // Lànhamu Aseda ut viso-i /*
 Sembina strike-SA FV sit-REAL.FV CON Aseda club pick.up-SA
fa manteri-ti ot belu-ia-me mode-ha / dat fai-na
 ITR med.worker-and RCP fight-RCP-SA do-DA man bad-PTS

la-m fa ab agute-h-am.
 there-ABS bone INDIC break-REAL-INDIC
 (Vadu) kept striking Sembina (until) (she) sat down. **Therefore** (DA)
Aseda picked up his club and (he) and the **medical worker** were fighting
 each other (DA) when (Vadu) broke that old man's arm.

At this point in the text there are four third person entities on stage, all explicitly mentioned before by proper nouns: Vadu, Aseda, Ofakete, Sembina. What has happened so far is that Aseda has struck down Vadu's sister Ofakete. Vadu considers whether he should get involved and then decides to get retribution for his sister having been hit, so he strikes down Aseda's wife Sembina. Even though the verb 'strike' in this example contains the same actor suffix and Sembina is Undergoer, she becomes the subject of 'sit'. This oddity for the SA suffix is discussed under §2.4.2 above. After she is struck down, structurally we find the connector *lähàmu*. This connector signals three things: that an old participant will be brought back into the story-line, that the preceding clause/sentence is the reason for the following result/response, and that this response will be what moves the story along.

- (260) *Laha-na i-ba nao vàmtea vou li lu à-m*
 like.that-PTS 1PL-DAT leg one with come.SA give.SA eat-IRR
kai. // Lähàmu dubu-t ab usa-i / Esili bake
 NEG CON.therefore old.bro-ERG INDIC get.up-SA Esili to
im ab vahoke-da-m-am.
 words INDIC teach-CONT-IRR-INDIC
 But (they) didn't even bring and give us one leg (of pork). **Therefore older brother** arose and started rebuking Esili.

6.4.5 TAKING TURNS IN CONVERSATION

In narrative texts that contain dialogue, there are structural boundaries to cue the hearer.

- (1) Bauzi pre-quote margin has this shape:

Rule (16): (Actor) (IO) Verb
 SPK ADD

In the preferred pre-quote margin only the Speaker is overtly mentioned. There are those rare occasions when both Speaker and Addressee are both overtly mentioned. If there is an overt reference for the participant as Speaker, it will always have the Ergative case marking. This also shows that the participant doing the speaking is dominant for the span of text that covers his speech. (See §6.4.6 below). There are four different arrangements in examples (261) to (263) below.

- (261) *Labi vim oli / ab vim gago-h-am. //*
 CON upstream enter.SA INDIC upstream say-REAL-INDIC
 V V
"U-m dae vaba-le-le." //
 2PL-ABS words NEG-ICP-IMP
Labi dam-at neha "Nasi gago-male". //
 CON people-ERG say now say-IMP
 A(SPK) V

Làhàmu e-ho ab gago-h-am. // "U-m gi
 CON 1SG-ERG INDIC say-REAL-INDIC 2PL-ABS ATN
 A(SPK) V

àvodi i-ba bihi nehu la-m a
 alarmed.SA 1PL-DAT cassowary fat there-ABS secretly

vasti à-da-m bak."
 hide.SA eat-CONT-IRR DECL

Then (I) went in the direction of upstream and (I) spoke upstream, "You be quiet". Then **people** said, "Go ahead and speak". **Therefore** (DA) I spoke. "You were just alarmed and – as for that cassowary fat – you just hid it from us and ate it in secret."

Notice how the narrator when reporting the interchanges of conversation above indicates not only that there will be a new speaker but, by using the connector *làhàmu*, that the information that follows is more prominent than what preceded. The people's telling him to go ahead and start speaking does not really move the story on, but what he says supports the whole thesis and purpose of his narration. The theme as stated at the beginning of this text, which is formulaic in nature, is: "As for us, Esi (and I) having quarrelled and then become reconciled again – (I) am going to tell about it". The implied slur against the character of the ones who ate the cassowary fat in secret without sharing it is that they did not have dogs, and what meat they were able to get without the aid of dogs they ate secretly, thinking they might not be able to get meat quickly in the future. The speaker (who happens to be the narrator) has dogs, so he was really bragging. This sparked off a series of quick hostile remarks back and forth.

(262)a. *Dam bake im ab vahoke-da-m-am.*
 people to words INDIC teach-CONT-IRR-INDIC
 IO(ADD) U V

(Buto) began rebuking the people. ("You people who are getting meat to eat, why are you bypassing other people's children in the distribution?")

b. *Labi-hàmu Esili-t fa aii-me / zum*
 like.that-CON.because Esili-ERG ITR hear-SA downstream
 A(SPK) V V

oli / i-ba ab gago-h-am.
 enter.SA 1PL-DAT INDIC say-REAL-INDIC
 IO(ADD) V

Therefore **Esili** heard (those words) and came downstream and spoke to **us**.

In example (262b) above the Speaker and Addressee do not co-occur in the same clause, and this is the preferred way. But there are instances where they do co-occur in the same clause as in (263) below.

(263) *Kes-am oi-at fem la-m fike-be*
 Kes-GEN mother-ERG banana there-ABS cut.down.PL-SA

mode-ha **Ofakete** **Vaomei** bake oote-me gago...
 do-DA Ofakete Vaomei to command-SA say
 A(SPK) IO(ADD) V

When Kes's mother cut down those banana plants, **Ofakete** compelled
Vaomei saying...

(2) The post-quote margin shape varies greatly. It usually contains a tail-head linkage of some sort. The more usual shape is this:

Rule (17): (laha) (labi) VERB CONnective

Read *laha* as: a form of *laha* '(say) like that' and read *labi* as: a form of *labi* 'like that'. There are four verbs that occur in this environment: *gago* 'say', *vamea* 'tell', *bute* 'call out', and *ozo* 'think'.

The linkage as described in example (264) can be interclausal with no sentence pause before the post-quote margin or the sentence pause occurring before it and the post-quote margin beginning the next sentence. Sometimes in this tail-head linkage, the narrator may slip in the addressee if it was not mentioned in the pre-quote margin, but again this is rare. Often the connective *lànhamu* will both close one quote and open another one as in (261) above. The post-quote margin also tells the hearer that there will be a different participant either in the role of Speaker or in the role Actor in the succeeding clause. Several examples follow that depict various shapes of post-quote margins.

(264) "..." **laha-me** / **gago-hemu** /
 (say).like.that-SA say-DA.CON.because
 V V

QUOTE Post-quote margin

e-ho nib-e gago, "..."
 1SG-ERG here-ERG say
 A(SPK) V
 Pre-quote margin
 "... because (he) said like that, I said, "..."

In example (264) above *lahame* serves as the post-quote margin without a sentence pause occurring before it. The repetition of the verb *gago* 'say' with the connective *-hemu* 'because' is simply a tail-head linkage device. In the examples (265) to (268) below the sentence pause precedes the post-quote margins.

(3) Post-quote margins at the beginning of new sentences:

(265) "..." **Lànhamu** / *dubu-t usa-i* /
 (say).like.that.because old.bro-ERG get.up-SA
 V A(SPK) V

QUOTE Post-quote margin

vamea-dàmu e-m ab usa-i vi
 tell-CON.because 1SG-ABS INDIC get.up-SA DIR
 V A(SPK) V

Pre-quote margin

old participants coming into or returning to a more dominant role. Also at these places there are grammatical cues signalling new participants.

- (269) *Paulus-t ab gago-ham. // "I-mo koai iub-a vou*
Paulus-ERG FV say-REAL.FV 1PL-SUBJ corpse there-DAT with
vim lazi / esu / bute-me / aii-se". //
upstream go.down.SA put.down.SA call.out.SA hear-SUBJ
Laha-me gago-hemu / i-ho Itbuluh ab
like.that-SA say-because.DA 1PL-ERG Itbuluh INDIC
male-h-am. // "Vabà! // I-m akati [dam
be against-REAL-INDIC no.way 1PL-ABS how.come people
amu-dà-t mee-da-m bak] fa mode-lo mode-la? //
earlier-PTS-ERG do-CONT-IRR NOM ITR do-PROSP do-INTER
Gi i-ho fao-be / [Yesus le-m-di-a]
ATN 1PL-ERG wait-SA Yesus come-IRR-at.time.of-DAT
[ame data ote-he-da] la-m ba gago-m bak."
b.m. child kill-REAL-PTS there-ABS later say-IRR DECL
Paulus said, "Let's take the corpse upstream and down to the beach, put (it) down and call (on the spirits) and listen (to what they answer back)". Because (he) spoke like that, Itbuluh and I, we were against it. ((we) said) "No way! How come we are going to repeat doing what the people who lived a long time ago have done? We'll wait, and after a while [when Jesus returns], (he) will tell (us) [who the murderer was]."

In example (269) above Paulus makes a proposal. This is a pivotal point in the narrative, the story is about to change direction. The narrator intrudes on the stage and uses the Ergative pronoun *iho* 'we' and in so doing makes himself and Itbuluh more dominant than Paulus. Paulus was dominant in the prior span of text; this is shown by the Ergative suffix *-t*. Then inside the second set of quotation marks, we find the narrator uses the absolutive pronoun *im* 'we'. In Bauzi it seems that statements of evaluation, questions, and other sentences in irrealis mode are of low transitivity and the narrator uses absolutive pronouns for non-dominant Actors in these statements. For example, when the speaker refers to people following the suggestion made by Paulus that they call on the dead, he includes himself by using the absolutive pronoun *im*: 'Why should we be doing that'. But their deliberate waiting on Jesus to return and expose the murderer is seen to be more "transitive" and the Ergative pronoun is used. More control is exercised over the situation in 'waiting' than in just following what was done in the past.

What follows in Chart 2 is a portion of text from the story entitled 'The killing of the medical worker' showing how clause and sentence connectors, participant dominance and ergativity, work together in discourse.

CHART 2: GRAMMATICAL AND LEXICAL SIGNALS IN DISCOURSE

Connective device	Dominant Participant	Form used for participant	Ergative marker	Action
–	Aseda	REL clause + proper name	- <i>t</i>	came to Danau, heard that Mumso was going to give his daughter to his son Kes, returned to Noiadi, assembled bride wealth, and was about to bring them to (Danao) when
- <i>ha</i> (DA)	people	noun	- <i>t</i>	were against it.
–	his mothers	NP	- <i>t</i>	said, “Why does another of our people want to live at Danao? Haven’t enough people as it is”, thus (they) remained arguing when
- <i>dameam</i> (SIM)	airplane	noun	- <i>t</i>	came
<i>Làhàmu</i> so	(people)		–	loaded Kes’s bride wealth onto the aeroplane for Danao.
<i>Lahana</i> but	his mothers	NP + proper names	- <i>t</i>	became angry at Aseda and Tuha (husbands), arose, and instead of cutting down Aseda’s banana plants, cut down Vaomei’s and after staying a while
- <i>dameilahit</i> until	Ofakete	proper name	<i>nibe</i>	said “Vaomei, why are you letting them get away with cutting down our banana plants?”, criticising Vaomei, and because (she) criticised Vaomei
- <i>dàmu</i> because	Vaomei	proper name	- <i>t</i>	thought “Now why is she thus criticising me so”, ran, crossed upstream, arrived and cut down Aseda’s banana plants.
<i>Labi</i> then	Aseda, he	proper name + pronoun	- <i>taho</i>	arose, went towards upstream down by the path to Dave’s house, and when (he) looked
- <i>ha</i> (DA)	[Vaomei	proper name	- <i>t</i>	was cutting down his banana plants]

Connective device	Dominant Participant	Form used for participant	Ergative marker	Action
<i>Labi</i> then	he	pronoun	<i>aho</i>	down to the beach towards upstream and looked
<i>-ha</i> (DA)	[Ofakete	proper name	ABS	had crossed over downstream and had climbed up to the top.]
<i>Làhàmu</i> so	(Aseda)		—	Ofakete striking her as (he) went, the fights had begun when
<i>-ha</i> (DA)	Ofakete	proper name	<i>-t</i>	while screaming, was traversing the airstrip.
<i>Labi hāmu</i> therefore	Vadu	proper name + REL clause + pronoun	<i>nibe-t</i>	picked up his club and ran down to the village, arrived, and struck Aseda and broke his arm.

*Note: In Chart 2 above each time a new participant is named, when (s)he is introduced for the first time or reintroduced, thereafter (s)he is kept track of via zero anaphora, that is, there is no overt reference.

6.5 SUMMARY OF OTHER RULES GOVERNING PARTICIPANT REFERENCE

Other rules that relate to participant reference follow. These rules are not ordered.

Rule (18): In a tail-head linkage device across paragraph boundaries, the participant serving as Actor is sometimes referred to with a full noun phrase or pronoun even though there has not been any intervening actor change. At other times tracking is done via zero anaphora. Both of these devices are shown in (270a) and (270b) below, which are taken from two different texts by different authors, but about the same subject.

(270)a. *Kes amu Danao nib-a le.*

Kes earlier Danao here-DAT come

Kes earlier came here to Danao.

New paragraph:

Labi Kes nib-a li aii-hat Mumso-t neha, "..."

CON Kes here-DAT come.SA hear-DA Mumso-ERG say

Kes having come here, (he) heard Mumso say, "..."

b. *Làhàmu Kes gago-me Noiadi-a ab olu-h-am.*

CON.therefore Kes say-SA Noiadi-DAT INDIC send-REAL-INDIC

New paragraph:

Labi Noiadi-a ab le vamea-da-h-am.

CON Noiadi-DAT INDIC go.SA tell-CONT-REAL-INDIC

Therefore (Mumso) spoke to Kes and sent (him) to Noiadi. Then (Kes) having arrived at Noiadi, (he) was telling (the people the news).

- (271) *Labi dam totbaho-ti otesi otesi-da-ha vaba-mu*
 CON people other-and debate RED-CONT-DA NEG-CON.because

nà gida-t ab gago-h-am.

sister others-ERG INDIC say-REAL-INDIC

But when (they) had stopped arguing with the other people, **sister and the others** began to speak.

New paragraph:

Kes a-m oi-ti fa a-m oi meida-ti

Kes 3SG-GEN mother-and ITR 3SG-GEN mother other-and

labihasu gago, "..."

those.ones say

Kes's mother and his other stepmothers, those ones said "..."

In example (271) above the narrator refers euphemistically to Kes's mother as "his sister and the others" at the end of the first paragraph. "The others" is a reference to the other wives of the same man that his sister is married to. Then in the tail-head linkage device they are referred to again as "Kes's mother and his stepmothers". They are the same group of people.

- Rule (19): If only two people are on stage, and a quote margin follows the different actor suffix or a connective that usually signals different actor, the Speaker will be referred to by a proper noun, pronoun or a noun phrase or a combination of these. The Addressee has zero reference in the quote margin. This is always the case. (See §6.4 above and Rule 20 below.)

- (272) ...[*Kisi-m digehi osi dasu-hu-na*] *la-m*
 Kisi-GEN bow rack put.through-REAL-PTS that-ABS

vihito-so-me mode-ha / e-ho neha, "Aah..."

pull.out-CNT-SA do-DA 1SG-ERG say aah

...just as (he) was about to take down (DA) [Kisi's bow that had been placed on the rack], I said to (him), "Hey, wait a minute..."

- (273) *Labi dam totbaho-ti otesi otesi-da-ha / vaba-mu*
 CON people others-and debate RED-CONT-DA NEG-CON.because

nà gida-t ab gago-h-am.

sister others-ERG INDIC say-REAL-INDIC

So when (they) thus argued and stopped (DA) **sister and the others** said to (us) "..."

- (274) *Dam totbaho lab-e neha, "I-mo zum*
 people some there-ERG say 1PL-SUBJ downstream

la-da-se". // Laha-hat / Itbulu-hat gago / "Mmm

go-CONT-SUBJ (say).like.that-DA Itbulu-ERG say mmm

vabo. E-m gi nib-a nova-i fa vim la-lo-mozo.
 no 1SG-ABS ATN here-DAT stop-SA ITR upstream go-PROSP-DES
Some people said (to), "Let's go downstream". When (they) said (DA) that,
Itbuluh said (to (them)), "No way. I am going to stop here and go back
 upstream".

- (275) *...fem Aseda-bada ab fike-h-am. // Lànhamu*
 banana Aseda-PTS INDIC cut.down.PL-REAL-INDIC CON
Aseda-t gago / "Ne u-m na / mee-da-m-di...
 Aseda-ERG say CON 2PL-ABS thing do-CONT-IRR-time.of
 ...(she) cut down Aseda's banana trees. Therefore **Aseda** said (to (them)),
 "What's the big idea when you do things..."

Rule (20): If a participant has been introduced in a quote margin, and if that participant's speech is directed toward someone who is not on stage at the time, then a proper name is employed to make reference to the Addressee in the pre-quote margin. See examples (263) above and (276) below.

- (276) *Labi ba neo ame-di la-m Sikea-ti Kes-ti*
 CON later next b.m.-at.the.time.of there-ABS Sikea-and Kes-and
fa neo nib-e vim la-ha-lab-e / Busda bake
 ITR next here-ERG upstream go-REAL-there-ERG Busda to
le gago, / "..."
 go.SA say
 Then later at that time **Sikea and Kes** next returned upstream and arrived and
 (they) said to **Busda**, "..."

An exception to this is example (277), which reflects the taboo on saying a person's name after they have recently died. In (277), a noun phrase is used instead of a proper noun to refer to the Addressee. This participant was onstage prior to (277), but has been offstage for quite a while.

- (277) *...dam bisi na lo-m bak gago-dàmu / e-ho*
 people so thing give-IRR NOM say-CONT.DA.because 1SG-ERG
koai lab-a neha, "..."
 corpse there-DAT say
 ...because people were begging so much for (us) to pay compensation, I said to
 the corpse, "..."

Rule (21): If two third person participants are onstage, and a third is introduced in the role of Actor, and if the new participant will not be the Actor of the following verb where one of the three is Undergoer, then the different actor suffix is used to differentiate who the next second/later Actor is. This is the situation in example (278).

- (278) *Lànhamu Boheabo ozo-ha / a-m lahi*
 CON.therefore Boheabo think-DA 3SG-GEN wife

beo-hemu / Felina beo-me bite.
 strike-DA.CON.because Felina strike-SA fall.down
 Therefore **Boheabo** considered (DA), because (Felina) hit (DA) his wife,
 (he) struck Felina and (she) fell down.

Rule (22): If a participant is Undergoer of the verb *beo* 'to strike' in the present clause, the Undergoer will become Actor of the following verb even though the verb *beo* has the same actor suffix. See the third clause in example (278) above. The clause combination 'strike-fall down' sets up an expectancy chain. The latter action is expected to happen if the former action takes place. There are other sequences of this type as discussed under §2.3.2.

Rule (23): If the narrator chooses to make one participant more dominant than another, yet that participant has changed to a less dominant role, Bauzi marks the Undergoer as topic in order to keep the spotlight on that participant, and there is zero marking for the Agent.

(279) *Làhàmu Aseda ut viso-i / fa manteri-ti ot*
 CON.therefore Aseda club pick.up-SA ITR med.worker-and RCP
 A V U V
belu-ia-me mode-ha / [dat fai-na] la-m fa ab
 strike-ITR-SA do-DA man bad-PTS there-ABS bone INDIC
 U(TOPIC) V

agute-h-am. //
 break-REAL-INDIC

New paragraph:

Labi fa agute-hemu / Tuha a-m dubu bake tau.
 CON bone break-DA.because Tuha 3SG-GEN old.bro to join
 V A U V

Therefore Aseda picked up his club and (he) and the medical worker fought (DA) each other when – **as for that old man** – (the medical worker) broke (his) arm. // Because (the medical worker) broke (Aseda's) arm, Tuha sided with his older brother.

At this point in the story Aseda has the dominant role. Because his wife Sembina has been struck down, he fights with the medical worker (Vadu). Vadu gets the upper hand and in the fight breaks Aseda's arm. Yet Vadu as Agent has zero marking. He is ascertained to be Agent only by the different actor marker on the previous verb. At the same time a noun phrase is employed to refer to Aseda and is marked as topic with the demonstrative *lam* meaning 'that'. Vadu also receives zero marking in the tail-head linkage device across paragraph boundaries where he is the Actor.

6.6 EXITS

There are no special grammatical devices to signal the normal exit of participants. Neither is there any distinction made between the dismissal of a principal character as opposed to major or minor participants. But sometimes minor participants just fade from the story with

no reference made to them. At other times there are precise ways that the narrator uses to dismiss participants from the scene of action. One way by the use of a suitable motion verb plus the verb *sete* 'to become lost', or the verb *ilu* 'vanish' or the verb *ita* 'flee'. Although there seems to be no distinction between dismissal of major and minor participants, there does seem to be a distinction made between permanent and temporary dismissal. The verb *ita* 'flee' and other motion verbs are used for temporary dismissal of participants, whereas the verb *sete* 'to become lost' is used for permanent dismissal.

For example, in the folktale about the 'rodent woman', a man kills a type of rodent near his house and asks his wife to cook it for him. She removes the intestines and liver from it, cooks them and puts the carcass on top of their house. Later the carcass turns into a woman while the real woman is lying down sleeping on the floor. It buries the real woman, who happens to be pregnant, alive while she is still sleeping. In example (280) below the real woman is temporarily dismissed with just a motion verb.

- (280) *Bisu i-da-meam / [num ohu-ba es-da-m*
 lie.down sleep-CONT-SIM house roof-CL.flat stay-CONT-IRR
ahagat] nib-e fa nam-e-li / usa-i / usi /
 rodent here-ERG ITR woman-DAT-ICP get.up-SA come.down.SA
nam abo nam ni-m azi-e-ba bisu
 woman real woman here-ABS stay-ICP-CL.flat lie.down
i-da-hit / bak-e si-me / ab okto-u
 sleep-CONT-until.DA ground-DAT dig-SA INDIC flip.over-SA
ab nom ilu-h-am.
 INDIC down vanish-REAL-INDIC

While (she) was sleeping, [the rodent (carcass) that had been staying on the house rooftop] became a woman, got up, came down, and while the real woman slept on the porch area, (the rodent-woman) dug a hole and then flipped (the woman) over and (she) **vanished downwards**.

The real woman is temporarily dismissed; she will appear later. After the rodent woman buries the real woman, she poses as the man's wife and is the dominant participant for a long span of text. Once the man discovers that the woman posing as his wife is really a rat, he shoots her with his bow and arrow. His arrow hits the mark and the woman changes back into a rodent and scurries off climbing a tree. He shoots several times more but misses. And then the narrator recounts what appears in example (281).

- (281) *Ba neo fo meida viso-i / neo beo-ha / bio-u /*
 later next arrow another pick.up-SA next strike-DA miss-SA
ut-o ab tom ilu sete-ham.
 tree-DAT FV up vanish become.lost-REAL.FV
 And (he) again took another arrow and when (he) shot it off, (it) missed and (the rodent) **vanished up** the tree and **was lost** to sight.

There is no more mention of the rodent. The narrator permanently dismissed the rodent with an appropriate motion verb plus the verb *sete* 'to be lost'. Then the narrator recounts how the man realised the fact that he no longer had a wife. Then he dismisses this major participant as well but only temporarily. This can be seen when one compares example (282) below with

(281) above. In the text from which both of these were taken, (282) follows immediately after (281).

- (282) *Làhàmu da nib-e fa li / ozo-te-ha / nam*
 CON.because man here-ERG ITR come.SA think-ITR-DA wife
a-bada sete-hemu / a-m doho dek-e
 3SG-PTS be.lost-DA.CON.because 3SG-GEN pig stringbag-DAT
vadu-me / num lab-a i-m mo-hemu /
 put.into-SA house there-DAT sleep-IRR not.want.to-DA.CON.because
ab ita-h-am.
 INDIC flee-REAL-INDIC
 Therefore this man returned and thought and thought, because his wife was
 lost/gone, (he) put his pig (meat) into the string bag, and because (he) did not
 want to sleep in that house anymore, (he) **fled**.

When the narrator dismissed the rodent for good in (281) he used the verb *sete* 'to be lost' and when he temporarily dismissed the man in (282) he used the verb *ita* 'flee'. The former was a minor participant and the latter a major participant. He reappears later.

Later the real woman who was buried digs her way out of her grave; when she surfaces she gives birth to a boy child and the umbilical cord turns into a bird of prey. The next span of text tells how the bird of prey and the woman care for her newborn son together. The bird of prey hunts food and, being unable to bring it back, leads the woman to the spot, and she brings it back and prepares sago cakes to feed her boy who soon becomes big and able to hunt on his own. Soon the father hears a boy calling his name from a distance and learns that he has a son and they are reunited. Upon their reunion the bird of prey has only one stipulation: the man and woman are not to have sexual intercourse in the house. Because the father ignores this request, the story ends with the bird of prey exiting. Example (283) depicts its dismissal.

- (283) *Labi la-ha-lab-e geo ohula fizusi / ab*
 CON go-REAL-there-ERG tree.type top bend.over INDIC
nusu-h-am. // Labi [voevoe-da-m bak]
 sit-REAL-INDIC CON ingressive.whistle-CONT-IRR NOM
la-m dae ab vaba-li sete-h-am.
 there-ABS sound INDIC NEG-ICP.SA be.lost-REAL-INDIC
 So leaving, (the bird of prey) went to the top of a *geo* tree, bent the top down and
 sat (there). And [as for its ingressive whistling], its sound **became lost**.

In example (284), which is taken from the story about the death of the medical worker, the murderers exit in a similar way to what has been described thus far.

- (284) *It gago, / "Debu i-himo modi bohudi / be-be / dat*
 DIR say source 1PL-RFLX cause fight.DA fight-SA man
meida ote-ho" / laha-me / labi bute-me ab
 one kill-COMP (say).like.that-SA like.that call.out-SA INDIC

zooe-da-m-am. // *Dam gi*
go.up.from.beach.into.jungle-CONT-IRR-INDIC people ATN

zooli sete-he-na...
go.up.from.beach.into.jungle.SA become.lost-REAL-PTS
(The murderers) said as (they) were leaving, "As for the source (of the fighting), we ourselves (among our own clan) have caused ourselves to fight and in the process have killed a man". Having called out like that, (they) went up into the jungle...As for those people, (they) just **went up into the jungle and became lost** (to sight)...

The murderers never appear on the stage again.

In the case of dramatic exits, such as by death, the typical way of dismissing that participant is by using the verb *fisiva* 'to die'. In the story that recounts the death of the medical worker, the narrator gives a sort of pseudo-exit for this major participant, as he is still referred to long after he has died.

- (285) *Laha-me e-ho labi gago-ha, / da ni-m gi*
like.that-SA 1SG-ERG like.that say-DA man here-ABS ATN
ab fisiva-h-am.
INDIC die-REAL-INDIC
Like that when I said it, this man just **died**.

That is his pseudo-exit. He cannot be dominant anymore. He does no more actions; in all the remaining references to him, he is just Undergoer. Following his dramatic pseudo-exit, they have difficulties getting him buried. Everyone had fled the scene, so with the few they have left, the narrator and a few women get the job done and in example (286) below is an account of this major participant's permanent exit.

- (286) *Labi koai bak-e bau-le-me neà-di /*
CON corpse ground-DAT bury-ICP-SA good-STATIVE.SA
esmo-zi / ab bio-h-am.
leave.behind-SA INDIC cross.over-REAL-INDIC
Having buried the corpse (we) **left it behind** and crossed back over the river.

As seen in example (286) above the verb *esmo* 'leave behind' is another motion verb that can be used to dismiss participants permanently from the stage. But in (287) below, which is taken from the story 'Getting a wife for Tomat', Viloh, the mother of the girl the people have decided should be Tomat's wife, tries to prevent the people from capturing her daughter and giving her to Tomat. In the physical struggle that ensues she gets knocked out and left on the ground and is temporarily dismissed from the stage with *esmo* while the men seize her daughter and flee.

- (287) *Bolo-u bis-da-hit / dam-at si anekèhà ahim*
faint-SA lie.down-CONT-DA.SIM people-ERG seize hand two

ohus-to nib-a vou làbu / gia. // Gia-me vou esmo.
 back-CL.side here-DAT with go.around.SA tie tie-SA with leave
 (Viloho) having fainted and while she was lying on the ground, people took hold
 of both her hands and brought them around to her back and tied them. Having
 tied them (they) **left her behind**.

6.7 ALIASES

In Bauzi discourse the narrator can choose his aliases, that is the different noun phrases he uses to refer to the same participant, according to the focus or viewpoint of the dominant participant or from his own viewpoint. In example (288) below, which is taken from the folktale about the 'rodent-woman', the narrator refers to the son of the real woman with two terms: 'the boy child' and 'his boy child' or 'his son'. As long as the boy was separated from his father, and the father didn't know that he even had a child, he is always referred to as 'the boy child'. This is the narrator's point of view.

- (288) *Labiha-da-me i-la-hit dabosi budua-le.*
 like.that-CONT-SA sleep-ITR-DA boy.child big-ICP
 It kept repeatedly happening like that when all of a sudden the **boy child**
 became big/grew up.

In this part of the story no one person has dominance. The narrator is simply maintaining the status quo of the major participants. But once the narrator brings the father back onto the story line, the noun phrase that refers to the boy becomes 'his boy child' and 'his son'. That is because the father has gained dominance and events are told from his viewpoint. This is exemplified in example (289) below.

- (289) *Labi-hàmu a-m ai-at ai-da-hat /*
 like.that-CON.because 3SG-GEN father-ERG hear-CONT-DA
a-m dabosi dae ai-dàmu ab
 3SG-GEN boy.child sound hear-CONT.because INDIC
le-h-am. // Labi a-m adat bosi bume
 come-REAL-INDIC like.that 3SG-GEN son adolescent bird
do-me neà-di / fa us-da-m-zobe /
 shoot-SA good-STATIVE.SA ITR climb.down-CONT-IRR-afterwards
au-si / fao-be / ab gut si-h-am.
 stalk-SA wait-SA INDIC DIR seize-REAL-INDIC
 Because it was happening like that, his father was listening when (lo and behold), because he was hearing **his boy child's** voice, (he) came. And after **his adolescent son** finished shooting birds and was climbing down (from the tree) (his father) crouched and after awhile sprang upon him and caught hold of him.

In the text about the death of the medical worker, there are at least six aliases used for the participant named Vadu other than his proper name: 'the one whom the people killed', 'person/people', 'our medical worker', 'the one whom he struck down', 'little teenager', 'another man'. Below are the circumstances in which they are used and from whose viewpoint.

- (290) Viewpoint: narrator
 Circumstance: this is the first time this major participant is introduced as an Actor and comes into dominance
 Form of reference: REL clause + proper name + pronoun (three nominals in apposition)
 Why this form: major participant, dominant, first time on the story-line
Labi-hàmu [dam-at ote-he-da] nib-et
 like.that-DA.because people-ERG kill-REAL-PTS here-ERG
 REL clause
Vadu-hat a-ho ut viso-i .../ gi fo-ho
 Vadu-ERG 3SG-ERG club pick.up-SA ATN strike-REAL
 proper name pronoun
vàma-de-ha / Aseda-m fa ab agute-h-am.
 one-STATIVE-DA Aseda-GEN bone INDIC break-REAL-INDIC
 Because it happened like that, as for **this one here [whom people had killed]**, **Vadu**, he picked up his club and when he just hit Aseda one time, Aseda's arm became broken.
- (291) Viewpoint: allies of Aseda's clan
 Circumstance: It is announced by others that he was the one who broke the old man's arm.
 Form of reference: common noun
 Why this form: This is inside the quotation and the word order is unmarked. Attention is on the event, not necessarily on who did it.
...dam-at nib-e vim bute. // "Kes-oa dam
 people-ERG here-ERG DIR.upstream call.out Kes-VOC people
o-m ai fai-na fa agute-ho. // Abo fa aguti
 2SG-GEN father bad-PTS bone break-COMP real ITR break.SA
voo-ho".
 throw.away-COMP
 People from here called out in the direction of upstream, "Kes, **people** have broken your old father's arm. (They) really have broken his arm and have just abandoned him".
- (292) Viewpoint: narrator
 Circumstance: He is reintroduced as a coordinate Actor.
 Form of reference: deictic *ame* + REL clause + proper name (two nominals in apposition)
 Why this form: The fronted topicalised relative clause 'the before-mentioned one whom people killed' raises the participant 'Vadu' in prominence; the narrator still has the spotlight on Kes but fades a bit to bring the Undergoer of the main independent clause into a more salient position.

Làhàmu Kes-at zum bio-u /
 CON.therefore Kes-ERG downstream cross.over-SA
 A V

ame [dam-at ote-he-da] la-m Vadu-ti
 b.m. people-ERG kill-REAL-PTS there-ABS Vadu-and proper name
 deictic REL clause Co-Actor
 TOPIC

ahi-li be-be mode-ha / Vadu dali.
 two-ICP fight-SA do-DA Vadu hit
 V U V

Therefore Kes crossed over downstream, (he) got together with **the before-mentioned person [whom people had killed]**, Vadu and fought when (Kes) struck Vadu.

- (293) Viewpoint: narrator
 Circumstance: The narrator lists him with his allies.
 Form of reference: deictic: *ame* + REL clause
 Why this form: To make him stand out in the list, the narrator lists him first.

[Dam ahoba lab-a vahe-he-da] neha. //
 people on.top there-DAT stack.up-REAL-PTS like.this

Ame [dam-at ote-he-da] ame. Danien ame...
 b.m. people-ERG kill-REAL-PTS EX Danien EX
 deictic REL clause

[The people who had gathered above] were these. There was **the before-mentioned one [whom people killed]**. There was Danien...

- (294) Viewpoint: two members of the Noiadi community
 Circumstance: One of the sons of the man with the broken arm returns and wants to kill Vadu for breaking his father's arm and someone tries to prevent this from happening.
 Form of reference: noun phrase including genitive pronoun
 Why this form: These two men represent the Noiadi community and they depend on Vadu for his medical services to them.

Làhàmu Suetgia-ti Bido-ti si fibae-da.
 CON.therefore Suetgia-and Bido-and seize cause.to.calm.down-CONT

"I-m manteri a ote-mule."
 1PL-GEN medical.worker PROH kill-PROH
 noun phrase

Therefore Suetgia and Bido grabbed hold of (Ohuki) and was calming him down. "Don't you kill **our medical worker**".

- (295) Viewpoint: Busda
 Circumstance: Busda meets Vadu for the first time since Vadu has broken his father's arm
 Form of reference: proper name; REL clause
 Why this form: The first reference to Vadu is after the different actor suffix *-ha* as expected; he is in a coordinate relation with two other proper names; *aho beohoda* 'the one he struck' reflects the viewpoint of Busda.

Busda [num meida iub-a aida-m-dà-t] vim
 Busda house one there-DAT stay-IRR-PTS-ERG upstream

aa-ha / Sigoe-ti Vadu-ti Aamneà-ti labihasu audo
 see-DA Sigoe-and Vadu-and Aamneà-and those.ones short.cut

nib-e ab zum zooli...// Labi
 here-ERG INDIC downstream go.into.the.jungle like.that

mode-ha / Busda-t a-m ut viso-i / Vadu-ti
 do-DA Busda-ERG 3SG-GEN club pick.up-SA Vadu-and

ab ot belu-i ot belu-ia-da-m-am...// Busda-t
 INDIC RCP fight-ITR RCP fight-ITR-CONT-IRR-INDIC Busda-ERG

gago, / "... laha-me gago. / [A-ho beo-ho-da]
 say like.that say 3SG-ERG strike-REAL-PTS

lab-a fa vabi-li / ab gago-h-am.
 there-DAT ITR not.know-ICP INDIC say-REAL-INDIC

When Busda [who was staying in another house] looked upstream, Sigoe and Vadu and Aamneà, those ones had come downstream, climbed up into the jungle via the short cut...When it happened like that, Busda picked up his club and (he) and Vadu began to fight...Busda said, "... like that (he) said. But as for the one [he had struck down], (he) was unaware that (he had really done him in) and said that.

- (296) Viewpoint: the community and narrator
 Circumstance: Vadu has fallen.
 Form of reference: kinship term + proper name (two nominals in apposition)
 Why this form: They have lost a dear person to the community. 'Little teenager' catches climate of the event that has just happened.

Dam-at ab gago-h-am. // "Dam bas-eà Vadu
 people-ERG INDIC say-REAL-INDIC people teen-CL.little Vadu

dali-ho. // Ab elo-lo mode-m-amtame." // E-ho
 hit-COMP INDIC die-PROSP do-IRR-EMP 1SG-ERG

anekehà-so ga-me / ab gago-h-am. // "Ah! //
 hand-CL.stick bite-SA INDIC say-REAL-INDIC ahh

Fumita' // Bas-eà gi ab elo-lo mode-m-amtame."

flute.name teen-CL.little ATN INDIC die-PROSP do-IRR-EMP

People spoke. "People have struck down the **little teenager Vadu**. (He) is about to die." I bit (his) finger and spoke. "Ahh! Fumit (swear word)! As for the **little teenager**, he is about to die." (Note: 'Little' here does not mean 'little in size' but is a term of endearment.)

- (297) Viewpoint: murderers
 Circumstance: They are leaving the scene of the crime.
 Form of reference: noun phrase
 Why this form: Vadu is considered to be part of their clan and from the viewpoint of the murderers he is 'another one' from their group. The implication is that the Noiadi people shouldn't get bent out of shape because they had only killed one of their own clan members.

It gago, / "Debu i-himo modi bohudi be-be / dat meida

DIR say source 1PL-RFLX cause fight.DA fight-SA man another

ote-ho". /

kill-COMP

(The murderers) said as (they) were leaving, "As for the source (of the fighting), we ourselves (among our own clan) have caused ourselves to fight and in the process have killed **one of our own men**".

7. CONCLUSION

In conclusion one can see how the switch-reference marking schema, participant tracking schema and ergative marking schema all work together to form a well-unified discourse. More analysis is needed in the area of when and where the particularising suffixes *-da* and *-na* are used.

APPENDIX A

1. The same actor suffix *-me* never occurs with verb stems indicating punctiliar or momentary situations whose stems are singular:

BAUZI	ENGLISH	S/R
<i>faito</i>	cut.down.SG (banana stalk)	<i>-i</i>
<i>fikboa</i>	cut.down.PL	<i>-me</i>
<i>vaito</i>	cut.off.SG (vine)	<i>-i</i>
<i>ukboa</i>	cut.off.PL	<i>-me</i>
<i>vihito</i>	pull.away.SG (canoe)	<i>-i</i>
<i>vihila</i>	pull.away.PL	<i>-me</i>

<i>fate</i>	split.into.SG (taro)	-i
<i>fahe</i>	divide.PL	-me
<i>vato</i>	take.out.of.SG	-i
<i>vatomoa</i>	take.out.of.PL	-me
<i>esu</i>	place.SG	-i
<i>vahe</i>	place.PL	-me

2. The same-actor suffix *-me* always occurs with process verb stems even if there are stem variations for singular or plural Actors or Undergoers.

<i>o</i>	fell.SG (Undergoer)	-me
<i>sie</i>	fell.PL	-me
<i>aida</i>	stay.SG (Actor)	-me
<i>esi</i>	stay.PL	-me
<i>baule</i>	bury.SG (Undergoer)	-me
<i>baumahē</i>	bury.PL	-me
<i>ita</i>	flee.SG (Actor)	-me
<i>ili</i>	flee.PL	-me
<i>ne</i>	weave.SG (Undergoer)	-me
<i>nemahe</i>	weave.PL	-me

3. These process verb stems which do not have variations for singular or plural also use *-me* to indicate same actor.

<i>gili</i>	shave.SG/PL	-me
<i>ozo</i>	think.SG/PL	-me
<i>fie</i>	make.sago.cakes.SG/PL	-me
<i>medà</i>	make.sago.pudding.SG/PL	-me
<i>asavahe</i>	boil.SG/PL	-me
<i>su</i>	cover.over.SG/PL	-me
<i>emoe</i>	run.SG/PL	-me
<i>ude</i>	drink.SG/PL	-me

4. However, there are morphophonemic changes that take place on some stems when the continuative aspect suffix *-da* is added.

<i>ote</i>	kill.SG	-me
<i>od-da</i>	kill.PL	-me
<i>mode</i>	sexual.intercourse.SG	-me
<i>mee-da</i>	sexual.intercourse.PL	-me
<i>bute</i>	call.SG	-me
<i>bud-da</i>	call.PL	-me
<i>mo</i>	build.SG	-me
<i>moa-da</i>	build.PL	-me

<i>fe</i>	pound.SG	-me
<i>feàda</i>	pound.PL	-me
<i>ne</i>	weave.SG	-me
<i>neàda</i>	weave.PL	-me
<i>be</i>	argue*	-me
<i>beàda</i>		-me
<i>ge</i>	scream*	-me
<i>geàda</i>		

* Here the addition of the suffix *-da* only means continuative aspect. However, it seems that others in this previous list of verbs, that same suffix is also indicating plurality of the Undergoer.

5. Same actor suffix *-i* is added to these verbs*:

<i>faito</i>	cut.down.SG	-i
<i>fikboa</i>	cut.down.PL	-me
<i>vato</i>	take.out.SG	-i
<i>vatomoa</i>	take.out.PL	-me
<i>valo</i>	pull.out.SG	-i
<i>vaomoa</i>	pull.out.PL	-me
<i>vihito</i>	pull.away.SG	-i
<i>vihila</i>	pull.away.PL	-me
<i>viso</i>	pick.up.SG	-i
<i>visomoa</i>	pick.up.PL	-me
<i>vaito</i>	cut.off.SG	-i
<i>ukboa</i>	cut.off.PL	-me
<i>feàkto</i>	sweep.away.SG	-i

NO PLURAL

* The continuative aspect *-da* can be added to the plural stems of these verbs to give focus on repetitive action.

6. Same actor suffix *-u* is added to these verbs (these do not have variations between singular and plural:

<i>bio</i>	cross.over (river)	-u
<i>futo</i>	go.out.of (river into another)	-u
<i>figoaito</i>	scatter (both intransitive and transitive)	-u
<i>bolo</i>	faint	-u
<i>voo</i>	throw.away	-u

APPENDIX B

Verb forms:

SINGULAR	PLURAL	English	when Continuative Aspect <i>-da</i> is added	Translation
<i>ote</i>	—	kill	<i>doho od-da</i> pig kill-CONT	kill many pigs
<i>sete</i>	—	become lost	<i>sed-da</i> become.lost-CONT	things are becoming lost
<i>o</i>	<i>sie</i>	fell (tree)	<i>ut sie-da</i> tree fell-CONT	clear for a garden sight
<i>vihito</i>	<i>vihila</i>	pull away	<i>ihe vihila-da</i> canoe pull.away-CONT	launch many canoes
<i>vato</i>	<i>vatomoa</i>	take out	<i>ubo vatomoa-da</i> swt.pot take.out.PL-CONT	take many sweet potatoes from (string bag)
<i>faito</i>	<i>fikboa</i>	cut down	<i>fem fikboa-da</i> banana cut.down.PL-CONT	cut down many banana stalks
<i>vaito</i>	<i>ukbo</i>	cut off	<i>lo ukbo-ada</i> vine cut.off.PL-CONT	cut many vines
<i>ita</i>	<i>ili</i>	flee	<i>dam ili-du-me...</i> people flee.PL-CONT-SA	people were fleeing
<i>moh</i>	<i>mouda*</i>	refuse	<i>dam mouda</i> people refuse.PL	the people were refusing
<i>voo</i>	<i>voeda*</i>	throw away	<i>buku voe-da</i> book throw.away.PL-CONT	throwing away books

* These two forms are frozen combinations which act as plural stems.

APPENDIX C

TEXT 1: THE DEATH OF AUNA'S DAUGHTER (Spoken by Toeà Muàda, male, aged 27)

1. *Auna-m data Olofa elo-ho bak vamea-lo.*
Auna-GEN child Olofa die-REAL NOM tell-PROSP
(I) am going to tell about the death of Auna's child Olofa.
2. *I-m Omtovasea-ti Aamsu-ti Dau-m na nib-a*
1PL-ABS Omtovasea-and Aamsu-and Dave-GEN thing here-DAT
mee-du-me jam 3:00 fu-he-mu ab zum
do-CONT-SA watch 3:00 arrive-DA-because INDIC downstream

- la-da-m-am.*
go-CONT-IRR-INDIC
Omtovasea, Aamsu and myself having finished working for Dave and 3:00 having arrived, (we) started downstream.
3. *Danao zum la.*
Danao downstream go
(We) went downstream to Danao.
4. *La-du-me Gienali-m num foti sei debu*
go-CONT-SA Gienali-GEN house pass.by.SA matoa.tree trunk
fu-si aii-ha dam meb-dae ab aii-da-m-am.
arrive-SA hear-DA people cry-words INDIC hear-CONT-IRR-INDIC
Going, (we) passed by Gienali's house and when (we) arrived at the base of the *matoa* tree and listened, (we) began hearing wailing.
5. *Làhàmu i-ho ab ot gago-i-da-m-am.*
CON.therefore 1PL-ERG INDIC RCP speak-ITR-CONT-IRR-INDIC
Therefore we started talking among ourselves.
6. "Na *la-m meb dae aii-dà-o?*"
happening there-ABS cry words hear-CONT.INTER-INTER
"Is that wailing that (we) are hearing?"
7. *Labi ot gago-ia-me neà-di emoe-me bak si la-m*
CON RCP speak-ITR-SA good-STATIVE.SA run-SA earth dig there-ABS
bio-u zum oli hangar la-m fibova-i aa-ha
cross.over-SA downstream enter.SA hangar there-ABS turn.bend-SA see-DA
dam ame data mum-at vee-he-na la-m ihe-ba esu
people b.m. child snake-ERG bite-REAL-PTS there-ABS canoe-CL.flat stay
tuena bake vou vim le-so-me mode-ha fisiva-he-mu
foreigner to AUX upstream come-CNT-SA do-DA die-DA-because
fa vou zitu vou le-du-me hangar obe lab-a
ITR AUX come.up.on.shore AUX come-CONT-SA hangar edge there-DAT
i-m-ti ab ot tahi-a-h-am.
1PL-ABS-and INDIC RCP meet.up.with-ITR-REAL-INDIC
Having finished conversing among ourselves, (we) ran, crossed the airstrip, entered downstream, turned the corner around the hangar and when (we) looked, the people had put the child that had been bitten by the snake into a canoe and had attempted to take (her) to the foreigners but because (she) died (midway), (they) brought her back up to shore and were bringing her when (they) and we met each other at the edge of the hangar.
8. *Labi i-ho lab-a ot tahi-a-me sutoba lab-a*
CON 1PL-ERG there-DAT RCP meet.up.with-ITR-SA bridge there-DAT
vou vim bio-u zie lab-e vim la-da-meam
AUX upstream cross.over-SA path there-ERG upstream go-CONT-while

aa-ha Auna a-m nam-ti dam-at si lo
 see-DA Auna 3SG-GEN wife-and people-ERG seize vine

vààu-du-me me-dda.
 secure.with.vine.PL-CONT-SA cry-PROG

And we having met there, (we) crossed over the bridge there going toward upstream, and while going on the path there, (we) looked and (saw that) people had seized Auna and his wife and were tying vine around their (waists) and were crying.

9. *Làhàmu lab-e vou la-ha-lab-e le ame*
 CON.therefore there-ERG AUX go-REAL-there-ERG go.SA b.m.

koai la-m vou le nuzuba ozoho-ba lab-a ab
 corpse there-ABS AUX go.SA floor end-CL.flat there-DAT INDIC

esu-h-am.
 put.down-REAL-INDIC

Therefore, taking (the corpse) from there, continuing on, (we) brought that corpse and put (it) down on the floor at the end of the house.

10. *Labi lab-a esu ab me-dda-m-am.*
 CON there-DAT put.down INDIC cry-CONT-IRR-INDIC
 Having placed (the corpse) there, (we) commenced crying.

11. *Dam ahebu me-dda-o.*
 people all cry-CONT-PROSP
 Everyone was crying.

12. *Labi i-m gi labohoti le fa Fogà-m num lab-a*
 CON 1PL-ABS ATN pass.by.SA go.SA ITR Fogà-GEN house there-DAT
le nusua.
 go.SA sit.PL

Then we just passed by (that place), went and were sitting down there at Fogà's house.

13. *Labi aasu faoda-meilahit ab disi-h-am.*
 CON look waiting-until INDIC become.evening-REAL-INDIC
 Then (we) just watched waiting until evening came.

14. *Làhàmu Itbuluh-at gago, "I-mo num lobio-bada na*
 CON.therefore Itbuluh-ERG speak 1PL-SUBJ house lobio-PTS thing

ohu-m num lab-a esu vou es-da-hit
 cook-IRR house there-DAT put.down AUX stay-CONT-until

dihà-se", laha-me gagu i-ho ame
 become.the.next.day-SUBJ like.that-SA say.SA 1PL-ERG b.m.

koai la-m viso-i vou la-ha dam koai num
 corpse there-ABS pick.up-SA AUX go-DA people corpse house

lada lab-a esu-m kai.
 that.particular.one there-DAT put.down-IRR NEG

Therefore Itbuluh said, "Let's just put (the corpse) in Lobio's cook house and leave it until morning", like that having said it we picked up that corpse and (we) were carrying it away, but the people (decided) not to put it in that house.

15. *Gi vou labohoti ab vou la-h-am.*
 ATN AUX pass.by.SA INDIC AUX go-REAL-INDIC
 (They) just bypassed (that house) and took it away (to another place).
16. *Num Kao-bada lab-a vou zi-si beahu-ba lab-a ab*
 house Kao-PTS there-DAT AUX climb-SA shelf-CL.flat there-DAT INDIC
esu-h-am.
 put.down-REAL-INDIC
 (They) took (it) and climbed up into Kao's house with (it) and put (it) down on a sleeping rack there.
17. *Làhàmu Auna-t gago, "Koai akati bisi bak bohu bak-e*
 CON.therefore Auna-ERG speak corpse why much place long place-DAT
vou vim le esu-he-la?"
 AUX upstream go.SA put.down-REAL-INTER
 Therefore Auna said, "Why have (you) taken the corpse so far upstream and put it down there?"
18. *"E-m labiha-meam ba u-ba lab-a vula-m va-bak."*
 1SG-ABS like.that-since later 2PL-DAT there-DAT go.after-IRR NEG-DECL
 "As for me – since (you) have done like that, (I) definitely will not go down there."
19. *"E-m koai akati u-ho gi kila bak-e le*
 1SG-GEN corpse why 2PL-ERG ATN far place-DAT go.SA
esu-he-la?"
 put.down-REAL-INTER
 "As for my (daughter's) corpse – why have you taken it to such a far away place?"
20. *Laha-me labi gago-he-mu koai fa viso-i vou*
 like.that-SA like.that speak-DA-because corpse ITR pick.up-SA AUX
le-he-lab-e Lobio-m num na ohu-m-da lab-a
 come-REAL-there-ERG Lobio-GEN house thing cook-IRR-people there-DAT
ab vou li esu-h-am.
 INDIC AUX come.SA put.down-REAL-INDIC
 Because (he) spoke like that, (the people) picked the corpse up again and bringing it from there, came and put it down in Lobio's cookhouse.
21. *Esu lab-a vou me-be-esu-i-da-meam aibu-le.*
 put.down there-DAT AUX cry-SA-put.down-ITR-CONT-while dark-ICP
 Having put it down, (they) continuously cried off and on and then (it) became dark.
22. *Aibu-le-he-mu Paulus-at ab gago-h-am.*
 dark-ICP-DA-because Paulus-ERG INDIC speak-REAL-INDIC
 Because it became dark, Paulus spoke.
23. *"I-mo koai iub-a vou vim lazi*
 1PL-SUBJ corpse there-DAT AUX upstream go.down.from.a.higher.plane.SA

esu bute-me aii-se."

put.down-SA call.out-SA hear-SUBJ

"Let's take the corpse down to the river towards upstream, put it down (on the beach), and call out (to the spirits) and listen to what (they have to tell us)."

24. *Laha-me gago-he-mu i-ho Itbuluh-ti ab*
like.that-SA speak-DA-because 1PL-ERG Itbuluh-and INDIC

male-h-am.

be.against-REAL-INDIC

Because (he) spoke like that, Itbuluh and I were against it.

25. "Vabà."
no.way
"No way!"

26. *"I-m akati dam amu-dà-t meeda-m bak fa mode-lo*
1PL-ABS why people earlier-PTS-ERG do-IRR NOM ITR do-PROSP

mode-la?"

do-INTER

"Why are we about to do like what our ancestors did in the past?"

27. *"Ne Yesus ehe bak?"*
CON Yesus exist DECL
"Don't you know that Yesus is here?"

28. *"Gi i-ho fao-be Yesus le-m-dia ame data*
ATN 1PL-ERG wait-SA Yesus come-IRR-at.the.time.of b.m. child

ote-he-da la-m ba gago-m bak."

kill-REAL-PTS there-ABS later speak-IRR DECL

"We will just wait and after a while when Yesus returns, (he) will tell us who that child's murderer was."

29. *Laha-me i-ho Itbuluh-ti daetesu mode-ha Paulus*
like.that-SA 1PL-ERG Itbuluh-and be.at.odds-SA do-DA Paulus
a-ho a-ba bak-e-t daetesu koai la-m
3SG-ERG 3SG-DAT NOM-ERG-ERG be.at.odds-SA corpse there-ABS

viso-i dam ahebu Beilo-ti ab vou vim
pick.up-SA people all Danis-and INDIC AUX upstream

laze-h-am.

go.down.do.beach-REAL-INDIC

Like that Itbuluh and I were at odds with (Paulus) when Paulus became at odds with us, (his argument) won out, so (they) picked up the corpse and everyone including the Danis went with it down to the beach.

30. *Labi koai la-m ve vabak lab-a esu ab*
CON corpse there-ABS take-SA beach there-DAT put.down-SA INDIC

bu-dda-m-am.

call.out-CONT-IRR-INDIC

And so having taken that corpse, (they) put it down on the beach there and commenced calling out (to the spirits).

31. “*Olofa o-m ama-t ote-he-lo?*”

Olofa 2SG-ABS who-ERG kill-REAL-INTER

“Olofa, who killed you?”

32. “*O-m ote-he-da che-le-meam làhà ame bak lab-e*

2SG-ABS kill-REAL-PTS exist-ICP-if if.that’s.the.case b.m. place there-ERG

i-ba it bute-le.”

1PL-DAT DIR.behind call.out-IMP

“If there exists your murderer, then call out to us from that place (where he is located).”

33. “*Labi i-ho aii-me ozo, ‘O-m ote-he-dà-t*

CON 1PL-ERG hear-SA think 2SG-ABS kill-REAL-PTS-ERG

esu-hu bak la-ame?’ laha-m bak ozobohu-de-m

put.down.SA-REAL place there-RHQ like.that-IRR NOM know-STATIVE-IRR

bak am tame”, *lahe-me ab bu-dda-m-am.*

NOM INDIC EMP like.that-SA INDIC call.out-CONT-IRR-INDIC

“Then we will hear it and think, ‘Oh is that the place where your murderer lives?’ that will be the way that we will know”, like that they were calling out.

34. *Bu-dda-m-lab-e a-m tai amu elo-ho-da*

call.out-CONT-IRR-there-ERG 3SG-GEN grandfather earlier die-REAL-PTS

lab-a vi gagu bu-dda.

there-DAT DIR say.SA call.out-CONT

Calling out, (they) were calling out to (the spirit) of her grandfather that had died earlier.

35. *Labi Auna-m ai elo-ho-na lab-a laha gagu*

CON Auna-GEN father die-REAL-PTS there-DAT like.that say.SA

bu-dda.

call.out-CONT

And then (they) were also calling out to (the spirit) of Auna’s dead father.

36. *Labiha-da-meilahit ame koai ote-he-dà-t esu-hu*

like.that-CONT-until b.m. corpse kill-REAL-PTS-ERG put.down.SA-REAL

bak lab-e bume lab-e boia-du-me amu ut-aaso

place there-ERG bird there-ERG fly-CONT-SA earlier tree-branch

lab-a ab li nusu-h-am.

there-DAT INDIC come.SA sit-REAL-INDIC

(They) continued doing like that until a bird flew from the place where that corpse’s murderer lived, came and sat down at first there on a tree branch.

37. *Làhàmu dam-at lab-a do-so-me ki-ha*
 CON.therefore people-ERG there-DAT shoot-CNT-SA cock.bow-DA
usi neo feu ahu-et-ba-so lab-a ab
 come.down.SA next flutter tree.name-leaf-CL.flat-CL.stick there-DAT INDIC
nusu-h-am.
 sit-REAL-INDIC
 Therefore the people attempted to shoot at (it) there but (the bird) came down and flew to a leaf stem of an *ahu* kind of tree and sat there.
38. *Labi lab-a nusu-ha fa ab loke-bu-le-h-am.*
 CON there-DAT sit-DA ITR INDIC ground.cuscus-CL.large-ICP-REAL-INDIC
 But when it sat there, it turned into a ground cuscus.
39. *Làhàmu dam-at lab-a dozo-ha-dam lab-e*
 CON.therefore people-ERG there-DAT stand.PL-REAL-people there-ERG
do-da-ha bio-da.
 shoot-CONT-DA miss.target-CONT
 Therefore the people that were standing around there (they) commenced shooting but (the arrows) were missing the target.
40. *Làhàmu Beilo Wem-at ab do-h-am.*
 CON.therefore Danis Wem-ERG INDIC shoot-REAL-INDIC
 Therefore the Dani (named) Wem shot (and hit) it.
41. *Labi dam ahebu ame ahagina-bu la-m vi*
 CON people all b.m. genus.marsupial-CL.large there-ABS DIR
do-du-me ote-me ab vou le-h-am.
 shoot-CONT-SA kill-SA INDIC AUX come-REAL-INDIC
 And so all the people also shot at that marsupial, killed it and brought it back.
42. *Vou li gago, "Ame data ote-he-na it ab*
 AUX come.SA speak b.m. child kill-REAL-PTS shadow INDIC
ote-h-am tame".
 kill-REAL-INDIC EMP
 Having brought it back (they) said, "We have killed the shadow/spirit of that child's murderer".
43. *Laha-me li vamea-du-me esu ab*
 like.that-SA come.SA tell-CONT-SA put.down.SA INDIC
diha-h-am.
 become.the.next.day-REAL-INDIC
 Like that (they) having come and told it, (it) became the next day.
44. *Labi diha-si dam totbaho lab-e neha,*
 CON become.the.next.day-SA people other there-ERG say
"I-mo ame ahagina la-m ohu-me à-se".
 1PL-SUBJ b.m. genus.marsupial there-ABS cook-SA eat-SUBJ
 Then on the next day some of the people said, "Let's cook that marsupial and eat it."

45. *Laha-hat i-ho dam totbaho-t gago, "Vabà!"*
 like.that-DA 1PL-ERG people other-ERG speak no.way
 When (they) said that, some of us said, "No way!"
46. *"Gi koai it ote-he-na a à-mule."*
 ATN corpse shadow kill-REAL-PTS PROH eat-PROH
 "It is just the shadow/spirit of something – don't eat it."
47. *Laha-me gi otesi otesi-da-ha vaba-mu ahagina*
 like.that-SA ATN argue argue-CONT-DA NEG-CON genus.marsupial
la-m gi baktom-ba lab-a voo-u bis-da.
 there-ABS ATN yard-CL.flat there-DAT throw.away-SA lie.down-CONT
 So (we) argued back and forth until (we) decided to throw that marsupial in the yard
 there and (it) just lay there.
48. *Labihàmu dam-at Auna-m ut gahe / visomoa-me*
 therefore people-ERG Auna-GEN wood planks pick.up.PL-SA
ukbo-du-me iha ab mode-lo mode-m-am.
 cut.into.PL-CONT-SA canoe INDIC do-PROSP do-IRR-INDIC
 Therefore the people commenced picking up Auna's sawn timber, cutting them (to
 size) and began to make a canoe-casket.
49. *Làhàmu dam totbaho-t gago, "Vabà!"*
 CON.therefore people other-ERG speak no.way
 Therefore other people said, "No way!"
50. *"Gi lazi ihe abo faito-i vou li*
 ATN go.down.from.a.higher.plane.SA canoe really cut-SA AUX come.SA
lafoezobe mode-se."
 afterwards do-SUBJ
 "Let's just go down to the shore (of lake), cut off part of a real canoe and after bringing
 it back make (a casket)."
51. *Laha-me neo otesi otesi-da-ha vaba-mu dam totbaho-t*
 like.that-SA next argue argue-CONT-DA NEG-CON people other-ERG
i-bi bak-e-t meo-li le ihe abo la-m
 1PL-PTS NOM-ERG-ERG win.out-ICP.SA go.SA canoe really there-ABS
faito-i vou li ab fo-a-da-m-am.
 cut.off.SG-SA AUX come.SA INDIC hollow.out-ITR-CONT-IRR-INDIC
 Then (people) continued to argue back and forth until one group of people's argument
 won out so (they) went (down to the shore), cut off part of a canoe, brought it back
 and began hollowing it out (some more).
52. *Labi ut gahe amu ukbo-ho-da la-m Beilo-t*
 CON wood planks earlier cut.into.PL-REAL-PTS there-ABS Danis-ERG

gi ostàme ukbo-me mode-ha kibu-le.

ATN without.purpose cut.into.PL-SA do-DA crooked-ICP

And as for those planks that were earlier cut to size – the Danis just purposelessly cut them and when (they) did (the planks) were crooked.

53. *Làhàmu e-ho duzu vi ozo-ha vaba-mu meter*
CON.therefore 1SG-ERG stand DIR think-DA NEG-CON tape.measure

koenà dek-e vadusu-hu-na la-m viso-i uloho-me
little string.bag-DAT put.into-REAL-PTS there-ABS pick.up-SA measure-SA

ut gahe la-m ukbo-me neà-di ozo,
wood planks there-ABS cut.into.PL-SA good-STATIVE.SA think

“Ne e-m Dau-m na mode-m bak bisi ala fa-lo
CON 1SG-ABS Dave-GEN thing do-IRR NOM much sun birth-PROSP

mode-mu” gi vousomo-zi ab vim la-h-am.
do-CON ATN leave.behind-SA INDIC upstream go-REAL-INDIC

Therefore I stood and thought and thought until (I) took out of my string bag my little tape measure, measured the wood, cut it to size, finished the work, and thought, “I’m going to be late for Dau’s jobs he has for me” so I left that situation behind and went upstream.

54. *Labiha-di-lab-e dam lab-e omozit ihe*
like.that-at.time.of-there-ERG people there-ERG meanwhile canoe

fo-a-du-me neà-di koai viso-i
hollow.out-ITR-CONT-SA good-STATIVE.SA corpse pick.up-SA

ihe-ba esu faku do-du-me neà-di
canoe-CL.flat put.down.SA nails nail-CONT-SA good-STATIVE.SA

vou le ab baumsu-h-am.
AUX go.SA INDIC bury-REAL-INDIC

At the time that (I) was doing like that, meanwhile those people finished hollowing out the canoe, picked up the corpse, put it in the canoe, nailed it shut, carried it (to the grave site) and buried it.

APPENDIX D

The following are the morphophonemic variants for the Dative Case suffix *-a* on common nouns:

when the nominal stems ends with:	variant	examples of inflected forms
CVC <i>Cem</i>	irregular ~ <i>-e</i> ~ <i>-o</i>	<i>vem</i> dog <i>vem-e la</i> dog-DAT go going to (trade things for) dogs <i>fem</i> banana <i>fem-o la</i> banana-DAT go go (to garden) for bananas
all other CV <i>m</i>	+ <i>-a</i>	<i>num</i> house <i>num-a aida</i> house-DAT stay staying in the house <i>vam</i> crocodile <i>vam-a la</i> crocodile-DAT go go hunting for crocodile
CVC <i>k</i>	irregular ~ <i>-e</i> ~ <i>-i</i>	<i>bak</i> ground, earth, place <i>bak-e baumsu</i> ground-DAT bury bury (lit.: bury in dirt) <i>dek</i> string bag <i>dek-e vadusu</i> string.bag-DAT put.into put into string bag <i>mek</i> pigeon <i>mek-i esu</i> pigeon-DAT place give it to the pigeon
VC <i>s</i>	irregular ~ <i>-a</i> ~ <i>-i</i>	<i>os</i> roasting rack <i>os-i dehà</i> rack-DAT roast roast on a rack <i>as</i> pot <i>as-a vahe</i> pot-DAT stack.up boil (lit.: stack in pot)
VC <i>t</i>	irregular ~ <i>-e</i> ~ <i>-o</i>	<i>ut</i> tree <i>ut-o la</i> tree-DAT go go for wood
CVC <i>t</i>	+ <i>-a</i>	<i>bumat</i> window <i>num bumat-a ole</i> house window-DAT enter (he) entered the window

when the nominal stems ends with:	variant	examples of inflected forms
CV o	+ -a	fo arrow fo-a uusu arrow-DAT put.through put it through the arrow point
		bo drum bo-a fo drum-DAT beat play the drum
VCV	final e → a	ihe canoe iha ousu canoe.DAT put.(human.objects) put into canoe
CVCV	final i → e final o → o	bihi cassowary bihe esu cassowary.DAT put feed cassowary doho pig doho la pig.DAT go go hunting for pigs
CVCV	final e → e final e + -a	bohe fish bohe la fish.DAT go go fishing (for fish) bume bird bume-a la bird-DAT go go hunting for birds
CVV	infix -l-	vao water valo esu water.DAT put put in the water valo ehu water.DAT swim swimming (lit. go under water) nao leg nalo leg.DAT on the leg
VV ae	infix -l-	ae bushknife Kali ale la. cousin bushknife.DAT go Cousin went to (trade things for) bushknives.
ia	no change	ia firewood ia la firewood.DAT go go for firewood

APPENDIX E

Abbreviations used in this paper are:

A	Actor	(grammatical function)
ABL	Ablative case	-e
ABS	Absolutive case	-m
ADD	Addressee	(role)
ADV	Adverb	<i>betea-t</i> 'slowly'
ANA	Anaphoric deictic	<i>laha</i> <i>labi</i> <i>ame</i>
ASP ¹	Aspect suffix	- <i>dete</i> (iterative) - <i>le</i> (inceptive) - <i>de</i> (stative) - <i>da</i> (continuative)
ASP ²	Aspect suffix	- <i>da</i> (continuative) - <i>lo</i> (prospective) - <i>so</i> (conative)
ASP ³	Aspect suffix	- <i>lo</i> (prospective) - <i>so</i> (conative)
ASS	Assertive mode	<i>am tam</i>
ATN	Attenuative particle	<i>gi</i> 'merely', 'only', 'just'
AUX ¹	Auxiliary word	<i>vou</i> 'with'
AUX ²	Auxiliary verb	<i>mode</i> 'do' <i>bie</i> 'unable'
B	Beneficiary	(role)
b.m.	Anaphoric deictic	<i>ame</i> 'the before-mentioned'
CAT	Cataphoric deictic	<i>neha</i>
CL	Classifier (nouns)	- <i>ba</i> 'flat' - <i>so</i> 'stick' - <i>bu</i> 'big' - <i>da</i> 'animate'
COMP	Completive aspect	- <i>ho</i>
CON	Connective words and clitics	- <i>mu</i> 'because' <i>labi</i> 'like that'
COND	Conditional suffix	- <i>meam</i> 'if', 'since'
CONT	Continuative aspect	- <i>da</i>
CONTRA	Contraexpectation	- <i>na</i>
CNT	Conative aspect	- <i>so</i>
DAT	Dative case	- <i>a</i> <i>bake</i>
DECL	Declarative mode	<i>bak</i>
DES	Desiderative mode	- <i>mozo</i>

DIR	Directional words, suffixes	<i>vim</i> 'upstream' <i>tom</i> 'up' <i>zum</i> 'downstream' <i>nom</i> 'down' <i>nem</i> 'towards oneself' <i>ub</i> 'away from oneself' <i>vi</i> 'after'; <i>it</i> 'behind' <i>gut</i> 'towards'
DA	Different actor suffix	<i>-ha</i>
EMC	Emphatic/contrastive pronoun	<i>-hVmo</i>
EMP	Emphatic mode	<i>tame</i> <i>-amtame</i> <i>am</i>
ERG	Ergative case	<i>-t</i> <i>-ho</i> <i>-e</i>
EX	Existential	<i>ame</i> 'there is/was'
F-V	Final Verb 'word'	(grammatical function)
F-VP	Final Verb Phrase	(grammatical function)
FV ¹	Final pre-verb particle	<i>ab</i> (indicative) <i>a</i> (prohibitive)
FV ²	Final verb enclitic	<i>-am</i> (indicative) <i>-mule</i> (prohibitive)
GEN	Genitive case	<i>-m</i>
GO	Goal	(role)
HAB	Habitual aspect particle	<i>meot</i>
ICP	Inceptive particle, suffix	<i>nas</i> 'first', 'now' <i>-le</i> 'become'
IMP	Imperative mode	<i>-le</i>
INDIC	Indicative mode	<i>ab ...-am</i>
IDF	Indefinite pronoun	<i>mei</i>
INST	Instrument	(role)
INTER	Interrogative mode	<i>-o</i> <i>-hela</i> <i>-heo</i>
IO	Indirect Object	(grammatical function)
IRR	Irrealis Status indicator	<i>-m</i>
ITR	Iterative particle	<i>fa</i> 'back', 'return'
LOC	Location aspect	<i>-te</i> (role)
MODE	Modal particles and enclitics	<i>bak</i> (declarative) <i>-o</i> (interrogative) <i>-le</i> (imperative) <i>-mozo</i> (desiderative) <i>-tame~-amtame</i> (emphatic) <i>am tam</i> (assertive)

		- <i>natame</i> (obligative)
		<i>ka</i> (negation)
		<i>a...-mule</i> (prohibitive)
		<i>ab...-am</i> (indicative)
		- <i>se</i> (subjunctive)
MNS	Means	(role)
NEG	Negative word	<i>vab</i>
		<i>vaba</i>
		<i>va-</i>
NF-V	Non-Final Verb 'word'	(grammatical function)
NF-VP	Non-Final Verb Phrase	(grammatical function)
NGTV	Negative mode	<i>kai</i>
		<i>kaio</i>
NOM	Nominaliser (on clause level)	<i>bak</i>
NP	Noun Phrases	(grammatical function)
0	Zero anaphora	(participant tracking)
OBL	Oblique case	- <i>t</i>
OBLG	Obligative mode	- <i>natame</i>
PL	Plural	(grammatical function)
PROB	Probability mode	- <i>zoa</i>
		- <i>ma</i>
PROG	Progressive mode/aspect	- <i>mehamde</i>
PROH	Prohibitive mode	<i>a...-mule</i>
PROSP	Prospective aspect	- <i>lo</i>
PTS	Particulariser	- <i>da</i>
		- <i>na</i>
R	Recipient	(role)
RCP	Reciprocal particle	<i>ot</i> 'each other'
REAL	Realis Status indicator	- <i>h</i>
RHQ	Rhetorical Question	- <i>taia</i>
		<i>akati...modela</i>
		<i>modem vaba</i>
SA	Same actor	- <i>me</i>
		- <i>i</i>
		- <i>be</i>
S	Source	(role)
SEQ	Sequential Action	(temporal relationship)
SG	Singular	(grammatical function)
SIM	Simultaneous action	- <i>dameam</i>
		- <i>dilabe</i>
S/R	Switch-reference suffix	- <i>me</i> (same actor)
		- <i>i</i> (same actor)
		- <i>ha</i> (different actor)

SPK	Speaker	(role)
STATE	Stative mode	-te
STATIVE	Stative aspect	-de
STATUS	Status suffix	-hV (realis) -m (irrealis)
SUBJ	Subjunctive mode	-se
TIME	Time word	ba 'later' amu 'earlier'
TOP	Topic	(grammatical function)
U	Undergoer	(grammatical function)
VOC	Vocative case	-oa
V	Verb	(grammatical function) placed at the beginning of the verb phrase)
?	Ungrammatical	
/	Clause boundary	
//	Sentence boundary	
—	in a matrix indicates no form is found	
[]	embedded clause	
.	(links words in a multiword gloss, portmanteau glosses)	
-	morpheme boundary	
()	implied information (in English translations of examples)	

REFERENCES

- Austin, Peter, 1981, Switch-reference in Australia. *Language* 57:309-334.
- Chafe, Wallace, 1970, *Meaning and the structure of language*. Chicago: The University of Chicago Press.
- Crystal, David, 1985, *A dictionary of linguistics and phonetics*. New York: Blackwell.
- DeLancey, S., 1981, An interpretation of split ergativity and related patterns. *Language* 57/3:626-657.
- Foley, William A., 1986, *The Papuan languages of New Guinea*. Cambridge: Cambridge University Press.
- Foley, William A. and Robert D. Van Valin, Jr, 1984, *Functional syntax and universal grammar*. Cambridge: Cambridge University Press.
- Givón, T., 1984, *Syntax: a functional-typological introduction*, vol.1. Amsterdam/ Philadelphia: Benjamins Publishing Company.
- Hopper, Paul J. and S.A. Thompson, 1980, Transitivity in grammar and discourse. *Language*, 56/2:251-299.
- Jacobsen, William, Jr., 1967, Switch-reference in Hokan Coahuiltecan. In Dell Hymes and W. Bittle, eds *Studies in Southwestern ethnolinguistics: meaning and history in the languages of the American Southwest*, 238-263. (Studies in General Anthropology 3.) The Hague: Mouton.
- Jones, Linda K., 1986, The question of ergativity in Yawa, a Papuan language. *Australian Journal of Linguistics*, 6:37-55.
- Potts, Denise M. and Dorothy James, 1988, Split ergativity in Siane: a study in markedness. *Journal of the Linguistic Society of Papua New Guinea*, 18:71-108.
- Sims, Anne and Linda Jones, 1986, Participant reference in Ketengban narrative folktales. *Workpapers in Indonesian Languages and Culture* 2:37-56.
- Voorhoeve, C.L., 1975, Languages of Irian Jaya: Checklist. Preliminary Classification, language maps, wordlists. *PL*, B-31.

TOWARDS A RECONSTRUCTION AND RECLASSIFICATION OF THE LAKES PLAIN LANGUAGES OF IRIAN JAYA

DUANE A. CLOUSE

1. INTRODUCTION

Until recently, little has been known about the languages in the western Lakes Plain region of Irian Jaya, Indonesia. This large region of mostly sago swamp remains isolated from the rest of the province, as access into the area is by foot or by single engine aircraft only. Some areas around the headwaters of and to the south of the Wapoga river have not yet had any contact with the outside world.

In 1991 the *Irian Bulletin* published the second edition of the *Index of Irian Jaya languages* (Silzer and Clouse 1991¹). In that edition, several languages in the western Lakes

¹ The languages discussed in this paper were classified in the *Index* as follows. The number following the language is the approximate population:

Trans New Guinea Phylum	
Dani-Kwerba Stock	
Dani Sub-Family	
Western Dani	129,000
Northern Sub-Phylum-Level Superstock	
Tor-Lakes Plain Stock	
Tor Family	
Berik	1,000
Orya Family Isolate	
Orya	1,600
Central Lakes Plain Family	
Doutai	335
Eritai	425
Obokuitai	150
Sikaritai	800
Biritai	250
Kai	250
Waritai	?
Duvle	200
Kwerisa	56
Papasena	400
East Lakes Plain Family	
Taworta	?
Dabra	100
Foua	230
Turu Family Isolate	
Edopi	750
Iau	500

Plain region remained unclassified, several others were little more than rumoured. Some languages were grouped together with the Geelvink Bay Phylum and others with the Trans New Guinea Phylum.

My wife and I began linguistic research in the Kirikiri language of the Lakes Plain area in 1989. After discovering several unusual phonological features (for non-Austronesian languages) in Kirikiri (Clouse and Clouse 1993) and other Lakes Plain languages, we became aware of the need for a wider, more comprehensive investigation. This research was followed in 1992 by a linguistic survey of the Wapoga River area.

My original, limited goal was to be able to more accurately classify the Kirikiri language and to understand how it genetically fits into the wider linguistic environment. This goal ultimately led to a comparative study of almost all of the western Lakes Plain languages and an attempt at a historical reconstruction of Proto Lakes Plain. In this paper I will attempt, through a historical reconstruction, to demonstrate that all of the Lakes Plain languages are related to each other and that there is ample phonological and lexicostatistical evidence to reclassify them under a superstock, belonging to the Geelvink Bay Phylum rather than under Tor Stock, Trans New Guinea Phylum. All the reconstructions proposed in this paper are original. Since many different theoretical approaches were used by the authors of the various phonologies of the Lakes Plain languages, I reanalysed many of the published and unpublished phonologies in order to make the comparison easier. A 'realist' as opposed to a 'formalist' approach was used in reconstructing the protolanguages. This means "reconstructed protolanguages are viewed not as formal devices but as real entities, as real as the languages around us" and therefore "there is great concern with positing typologically plausible systems" (Lichtenberk 1994:1). The languages in the Lakes Plain not included in the study were Kwerisa and Papasena in the Central Lakes Plain Family and Taworta, Dabra and Foau in the East Lakes Plain Family, as classified by Voorhoeve 1975 and Silzer and Clouse 1991. The data available for these languages was considered insufficient for drawing any conclusions, although they are included in the final reclassification offered at the end of this paper. This paper constitutes the results of my findings to date. All of my conclusions must be taken as tentative as much of my data consists of 267-item word lists (some taken monolingually by non-linguists). Since little grammatical information was available, no attempt was made at a comprehensive comparison of the grammatical features of these

Kaure Sub-Phylum-Level Stock	
Kaure Family	
Kaure	400
Geelvink Bay Phylum	
East Geelvink Bay Stock-Level Family	
Bauzi	1,500
Demisa	500
Aweru Group	
Aweru	100
Saponi	10
Rasawa	200
Unclassified	
Kirikiri	250
Fayu	400
Tause	350
Rumoured (no data)	
Sehudate	75
Faia	100
Weirate	75
Deirate	75

languages. Despite the inherent inaccuracies that are bound to occur in these circumstances, I hope that this initial attempt at reconstructing and reclassifying the Lakes Plain languages will be of some use to those interested in non-Austronesian languages and phonological universals and will prompt further linguistic study of this lesser known area of the island.

1.1 NAMES

When the term western Lakes Plain is used in this paper, it refers roughly to the area from the juncture of the Tariku (Rouffaer) and Mamberamo Rivers westward to Cenderawasih (Geelvink) Bay. Many geographical names were changed when Irian Jaya became a province of Indonesia. The older names have been retained when they coincide with recognised linguistic classifications (e.g. Geelvink Bay with Geelvink Bay Phylum) or have been used extensively in other linguistic literature. Otherwise, the more recent Indonesian name has been used. The language names used are those found in the second edition of the *Index of Irian Jaya languages* (Silzer and Clouse 1991).

1.2 LOCATIONS

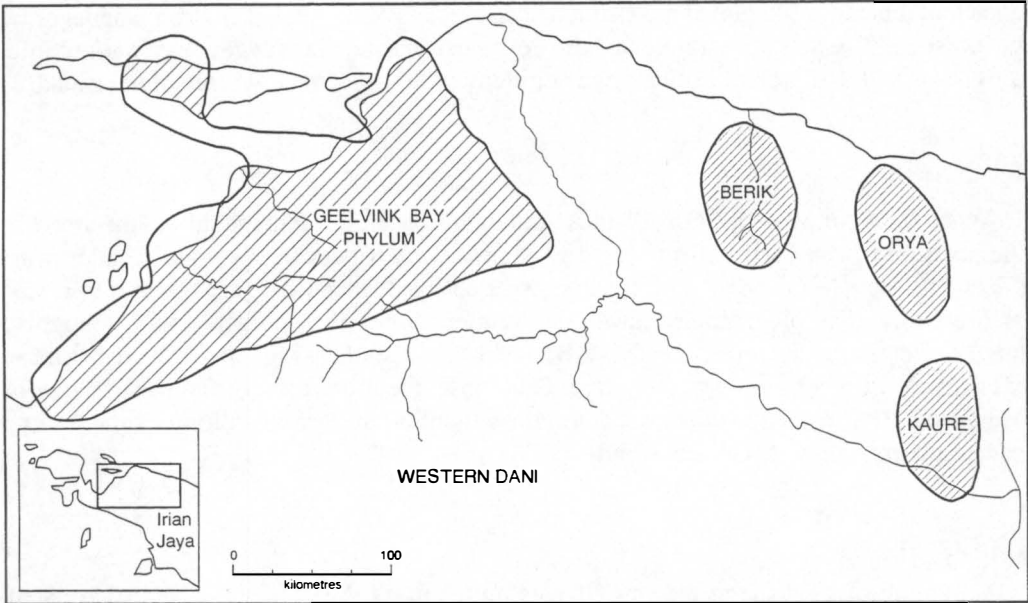
No attempt was made at placing villages on the maps. Most of these groups are semi-nomadic and village locations are constantly moving. Only the villages in which the word lists were taken are listed in Appendix 3. These villages are plotted with a small dot (•) on Map 2 in order to give the reader a sense of possible second language influence. Dialect boundaries are marked on Map 2 by a dotted line.

1.3 ABBREVIATIONS

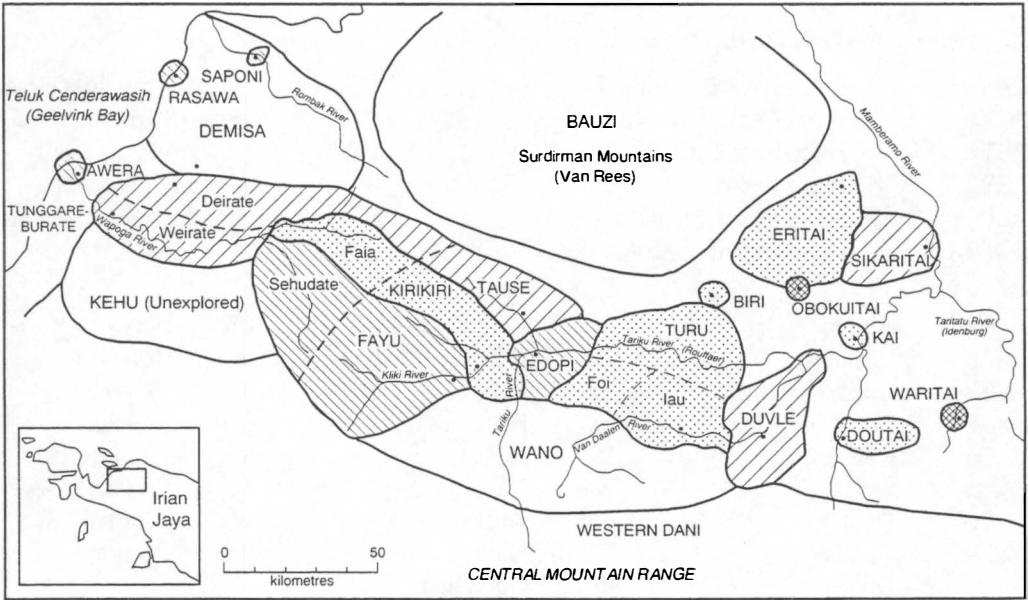
Abbreviations used in this paper are:

PAn-D	Proto Austronesian – Dempwolf	POc-Gr	Proto Oceanic – Grace
PCT	Proto Central Tariku	PT	Proto Tariku
PET	Proto East Tariku	PWT	Proto West Tariku
PFW	Proto Far West	V [^]	extra high vowel
PLP	Proto Lakes Plain	C ^ˀ	unreleased consonant
POc-BLAA	Proto Oceanic – Blust		

Aw	Awera	Ed	Edopi	Or	Orya
Bi	Biritai	Er	Eritai	Ra	Rasawa
Bk	Berik	Fa	Faia	Sa	Saponi
Bz	Bauzi	Fy	Fayu	Se	Sehudate
De	Deirate	Ia	Iau	Si	Sikaritai
Dn	Dani	Ka	Kai	Ta	Tause
Do	Doutai	Ki	Kirikiri	Wa	Waritai
Ds	Demisa	Kr	Kaure	We	Weirate
Du	Duvle	Ob	Obokuitai		

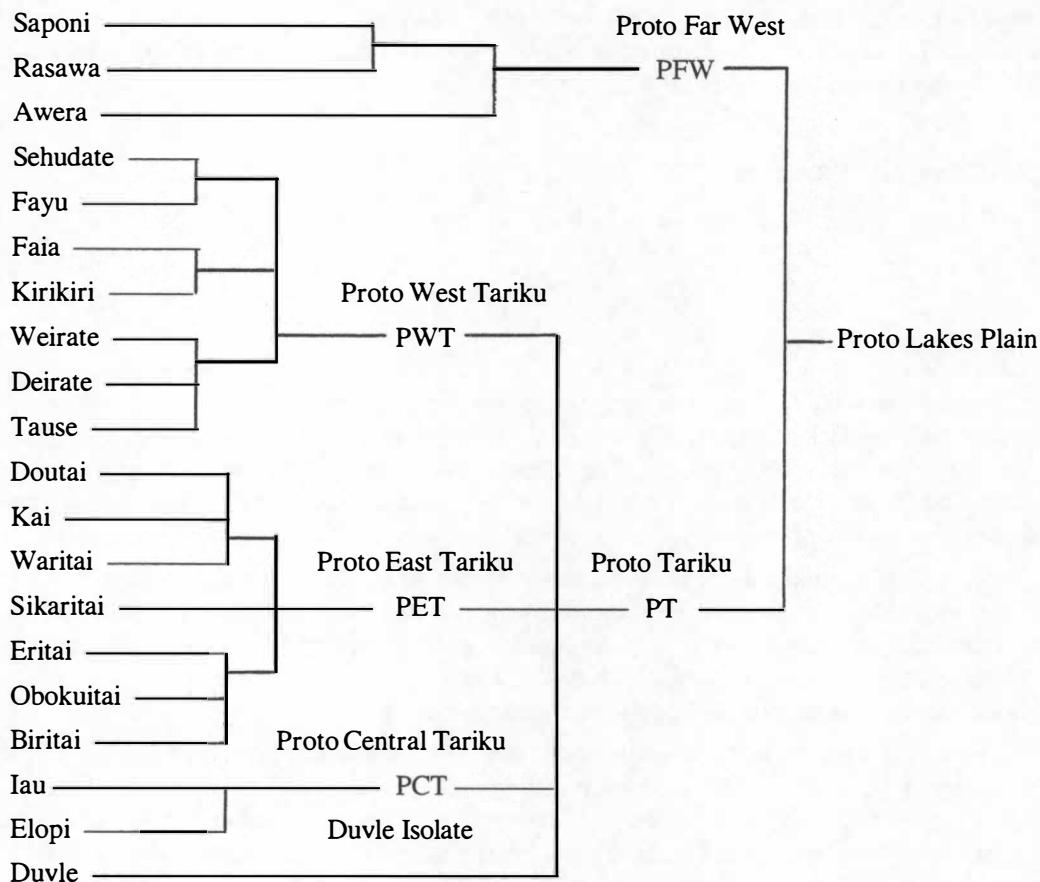


MAP 1: NORTH IRIAN JAYA
(according to Voorhoeve 1975)



MAP 2: THE WESTERN LAKES PLAIN
(Modified from Silzer and Clouse 1991)

The discussion in this paper will be based on the following tree diagram, which represents the order of historical divergence. Moving right to left, therefore, Proto Lakes Plain diverged into Proto Far West and Proto Tariku and Proto Tariku into Proto West Tariku and so on.



2. BORROWED VERSUS COGNATE

Foley (1986) has stated in his book *The Papuan languages of New Guinea* that we face a “daunting assignment” as we try to reconstruct Papuan languages. With no written documents before the twentieth century and, more significantly, because the languages are small, contiguous and “normally exhibit a pattern of enormous cross-influence in all areas” (1986:209), I have found with this study that sorting cognates from borrowings is at best a “tricky undertaking”. Therefore, in formulating a reconstruction of Lakes Plain languages, core vocabulary (pronouns, nouns referring to body parts, simple kin relations, natural phenomena and basic verb roots) was used in order to lessen the chance of borrowing.

3. PROTOLAKES PLAIN

Proto Lakes Plain was a non-Austronesian language spoken perhaps a millennium or more ago in the southern Van Rees mountains east of Cenderawasih Bay in what is now the

province of Irian Jaya, Indonesia. If their current physiology is any indication, these ancient people were typical of Melanesians found along the north side of the island of New Guinea, relatively tall and slender rather than short and stocky like highland people. Little else can be presumed about them. Although we know nothing of the area from which they may have migrated, on the basis of the findings of this study (though not the purpose of this paper) one could make some educated guesses as to their movement since the time Proto Lakes Plain (PLP) was spoken (see Clouse 1993).

3.1 CONSONANT SYSTEM

The Proto Lakes Plain consonants were:

<i>*p</i>	<i>*t</i>	<i>*k</i>
<i>*b</i>	<i>*d</i>	
<i>*(w)</i>	<i>*(y)</i>	

The most notable feature of the PLP consonant system is the small number of phonemes, in particular the lack of nasals. In all of the languages studied, nasals (if existing) were non-contrastive with their corresponding voiced stop. This feature of PLP remains in the eastern Tariku languages, where there is a lack of even a phonetic nasal, and in Rasawa, where the nasals are very rare phonetically.

Because of limited data, it is inconclusive at this point, whether a flap **ɾ* was really a separate phoneme from **d*. The flap seems to have occurred exclusively as the second member of a consonant cluster or intervocalically but never word-initially. In the modern languages, the flap is not contrastive with *d*. If it was a separate phoneme, it is likely that its phonemic status weakened as the syllable structure simplified.

The semivowels **w* and **y* were included in the PLP consonant inventory above, though parenthetically, to reflect the word list transcriptions in Appendix 3, to which many of the references in this paper apply, and to raise the possibility that they existed in PLP. Several phonologies have been done in Lakes Plain languages and in none of them have **y* and **w* been posited as phonemes nor have they had a bearing on determining the syllable structure. Therefore, in the reflex charts, where the word lists used *y* and *w*, **i* and **u* were reconstructed.

3.2 VOWEL SYSTEM

It was impossible to reconstruct the PLP vowel system by using all of the word lists. Vowels are perhaps the most difficult of sounds to transcribe accurately. The word lists available were transcribed by several different people and since it is more likely that each ear will hear vowels slightly differently, only those lists where a reliable phonological analysis had been done in the language were used. Fortunately, a phonological analysis of some kind has been done in at least one of all the major language groupings (with the exception of the Proto Far West group): PWT, PCT, Duvle and PET (Bateman 1990b, Jenison and Jenison 1991a, Kim and Kim 1995, Kügler 1990, Kügler and Kügler 1990, Martin 1986, McAllister and McAllister 1991, Murdoch n.d.¹, and Munnings 1991a). It was from these phonologies and dictionaries (more expanded than what is seen in Appendix 3) that the reconstruction for PLP and PT vowels was made.

PLP had a five vowel system:

*i *u
 *e *o
 *a

In most of the present-day languages the quality of *e and *o are realised as [ɛ] and [ɔ].

3.3 SYLLABLE STRUCTURE AND PHONOTACTICS

The syllable structure of PLP was at least V, CV, and CCV. However, there are closed syllables (or evidence for an underlying closed syllable) in the current languages. Two hypotheses are possible for the existence of closed syllables in the present languages.

The first hypothesis assumes that there were no closed syllables in PLP. Several factors argue for this interpretation:

- (1) Only voiced obstruents close the syllable in the modern languages where there are closed syllables.
- (2) In other contexts, voiced obstruents occur only intervocalically.
- (3) It is a universal tendency that if voiced obstruents close a syllable, voiceless ones will too. (This would suggest that a vowel existed after the last voiced obstruent. By the time PT was spoken, this vowel deleted and the obstruent became unreleased.)

A second hypothesis assumes that closed syllables existed in PLP and that the syllable-final consonant was a voiceless obstruent, but in word-final position it became unreleased and voiced by the time PT was spoken. To summarise:

Hypothesis 1: PLP **tikV* > **tigV* > PT **tig'*

Hypothesis 2: PLP $*tik > *tik^7 > PT *tig^7$

All we can be certain of is that by the time PT was spoken, a word-final voiced and unreleased obstruent existed, producing the syllable types *CVC and *CCVC.

The only other phonotactic constraint in PLP was that the second member of a consonant cluster could only be a flap. It was also likely that the **k* became labialised when followed by **u* and another vowel: **kuV* > **k^wV*.

3.4 PHONOLOGICAL CHANGES FROM PROTO LAKES PLAIN TO PROTO FAR WEST AND PROTO TARIKU

The most notable changes occurred in Proto Far West. PFW simplified the PLP words in a number of ways. One noticeable change was the deletion of most instances of the word initial **ku* sequence (unless it was the only syllable in the word); PLP **kubadi* > PFW **poidi* 'a fly', PLP **kupade* > PFW **pare* 'stone' among others. It can be seen that some changes happened before others. One of the first changes to occur was to delete a flap **r* between vowels: PLP **kurire* > PFW **kuie* 'rain'. After this change, the **ku* was deleted and then the intervocalic **d* became a new flap **r*: PLP **kudaide* > PFW **taio* 'fire' and PLP **dia-dau* > PFW **ta-rau* 'to stand'. The syllable structure was simplified in two ways: by inserting an echo vowel between the consonant cluster; PLP **pri* > PFW **piri* 'louse'

and PLP **bri* > PFW **biri* 'tooth'; and, perhaps earlier than the **ku* deletion, by deleting the final syllable; PLP **kriCV* > PFW **kiri* 'banana' and PLP **kuCV* > PFW **ku* 'tree'. Although the breaking of the consonant cluster was complete in Saponi, there are still consonant clusters in Awerá and Rasawa. Compare the word 'one' in Ra *kriβi*, Aw *priya*, and Sa *kiriβeje*. The phone [s] can be found in the modern Far West languages, though it is the least common phone. Its occurrence today could be a result of borrowing or later sound changes that cannot be confirmed with the data available.

The sound changes in PT were less pronounced but more confusing than those in PFW. Perhaps this is because there are few intermediate protoforms possible to reconstruct between PLP and the modern Far West languages and so the changes seem more dramatic. Similar to the change from PLP to PFW was the weakening of intervocalic **d* to become a flap **r* in PT. However, this happened only within a morpheme in PT. PLP **dia-dau* > **PT dia-de* 'to stand' but PLP **diadi* > PT **diari* 'cassowary'. The intervocalic flap **r* remained unchanged at this point, PLP **kuria* > PT **kuria* 'stomach', but will be seen to drop in later reflexes. These phenomena are a common trend and do not seem to apply at all times. Regrettably, the data is insufficient to determine what specific rules applied in each instance.

The most puzzling change that occurred was the emergence of **s* in PFW and PT. Although the phone [s] occurs in all of the languages, in no instance are there cognates where the reflex **s* is chosen for all of the languages; **t* is always chosen as the reflex in one or more of the languages, but not consistently in the same languages. In the modern Lakes Plain languages [s] can occur with any vowel, but the Lakes Plain languages in the Wapoga headwaters area (Deirate, Weirate, Faia, Sehudate), the sequence [si] does not occur. In addition, with the exception of one word, the sequence [tiV] does not exist in the Far West or central and western Tariku languages and in the eastern Tariku languages it is exceedingly rare. This evidence prevents the positing of **s* in PFW and PT, although it is evident that its status as a full phoneme is becoming more certain.

CHART 1: PFW AND PT REFLEXES

PLP	PFW	PT
<i>*p</i>	<i>*p</i>	<i>*p</i>
V <i>*pV</i>	<i>*p</i>	<i>*φ</i>
<i>*k</i>	<i>*k</i>	<i>*k</i>
<i>*b</i>	<i>*b</i>	<i>*b</i>
<i>*t</i>	<i>*t</i>	<i>*t</i>
<i>*d</i>	<i>*d</i>	<i>*d</i>
V <i>*dV</i>	<i>*r</i>	<i>*r</i>
V <i>*rV</i>	<i>*Ø</i>	<i>*r</i>
<i>*a</i>	<i>*a</i>	<i>*a</i>
<i>*e</i>	<i>*e</i>	<i>*e</i>
<i>*i</i>	<i>*i</i>	<i>*i</i>
<i>*o</i>	<i>*o</i>	<i>*o</i>
<i>*u</i>	<i>*u</i>	<i>*u</i>

4. PROTO FAR WEST

Proto Far West has been reconstructed from only three languages which together do not share a large number of cognates, though there are other language groups in the area that have not been contacted or documented which may be related. Because there are so few languages from which to draw data (and the only data that do exist are word lists) it is difficult to tell when PFW was spoken. If the rate of language deterioration was the same for all of these languages, then it would have been spoken about the same time as PWT, PCT and PET. The only things readily apparent are that the divergence of PFW from PLP was at an earlier stage than when PT diverged into PWT, PCT, Duvle and PET, and that, based on lexicostatistics, and to a lesser degree on sound changes, PFW is clearly distinct from PT.

4.1 CONSONANT SYSTEM

The PFW consonant system was:

*p	*t	*k
*b	*d	

This system is similar to PLP except that the *d has become a flap *r intervocally in nearly all cases. Nasals continue to be missing. In Rasawa they are found almost exclusively in the adjectival suffix *-nu/no*. Since this suffix in most of the other Lakes Plain languages is *-e*, *-we*, and *-be/bi*, it is possible that the *-nu/no* suffix was borrowed in Rasawa. What is more, in Awerá and Saponi, though the nasals are frequent, there is no contrast between the nasals and their corresponding voiced stops.

4.2 VOWEL SYSTEM

Until more reliable data is available, as discussed in §3.2, reconstructing the PFW vowel system is nearly impossible.

4.3 SYLLABLE STRUCTURE AND PHONOTACTICS

The syllable structure of PLP began to simplify in the PFW languages. In Saponi the change is complete and now only the syllables V and CV exist; with an echo vowel inserted between the previous CC. This change appears to still be in process in Rasawa and Awerá: Sa *kiriþeje*, Ra *kriþi*, Aw *priya* 'one'; Sa *niriwa*, Ra *driþɔ* 'three'; Sa *tarau*, Aw *traþi* 'to stand'. In those languages where the initial consonant cluster occurs, the second member of the cluster is always a flap *r.

4.4 PHONOLOGICAL CHANGES FROM PFW TO AWERÁ, SAPONI AND RASAWA

Although the lexicostatistical cognates percentage is lowest between Saponi and Awerá (29 per cent) these show the greatest similarity in sound changes from PFW.

The numbers given after the reflexes refer to the numbered words in the word lists in Appendix 3. It is from these words that my conclusions were drawn.

CHART 2: PFW-TO-LANGUAGES REFLEXES

PW	Sa	Ra	Aw	Ref.
*#p	#p~f	#p	#p	106, 188, 84, 88
*#p	#Ø			138, 164
V*pV	p~f	φ	p	56
*#k	k	k	k	108, 118
V*kV	g~y	x~k	y	164, 168, 171, 177
*#bV	#β~mV [+lo]	#b~mV [+lo]	#β~mV [-hi]	161, 162, 16, 58
*VbV	w	β	β~w	168, 178, 21
*#t	#t	#t	#t~r~n	20, 37
*tV	sV	sV	sV	186, 199
*#d	#n	#d	#n	46, 29, 140, 151
*V*dV	r	r	r~Ø	187, 188
*iiε/*Vdie	jε/rε	iyε/βie	iyε/βe	30, 13, 35, 43

As stated earlier, the exact nature of the emergence of [s] in the Far West languages remains a mystery. Its occurrence is rare in all the languages and its distribution is limited. Although there exist examples of *tV*₁... and *sV*₁... in all the languages, there are no contrasts between *tV*₁ and *sV*₁.

Another innovation is the appearance of the affricate *j* in Saponi. This occurs only in a final suffix. Considering the absence of **tV* in PFW and its resulting form, the absence of the sequence **VdV* from Saponi also is not surprising. Since these sequences result in [s] and [j] in other Lakes Plain languages, it could have happened in Saponi. However, because the sequence *VrV* exists in Saponi, the palatalisation of **d* would have to have occurred before the flapping of intervocalic **d*. Another possible source is the sequence *iyV*:

Saponi	Rasawa
<i>nε-iε</i>	<i>de-ye</i> water (Ref. 29)
<i>Ø-εrε-jε</i>	<i>de-keri-ye</i> lake (Ref. 30)

A final possibility is that Saponi [j] was formed from more than one source.

5. PROTO TARIKU

PT was more conservative phonologically than PFW. The phonemic inventory and the syllable structure and phonotactics were nearly identical to PLP. This suggests that when the PFW group and PT group diverged, the PT people remained linguistically homogeneous and conservative for a few centuries.

The only possible change in the syllable structure is the introduction of closed syllables via the deletion of a final vowel (quality unknown) producing a word-final unreleased voiced obstruent and the additional syllable patterns **CVC* and **CCVC*. Irrefutable evidence for this vowel is hard to reconstruct from the present-day languages. The possibility was discussed in §4.3 that closed syllables could have been present in PLP, in which case there would be no difference between PLP and PT.

5.1 PHONOLOGICAL CHANGES FROM PT TO PWT, PCT AND PET

In the consonant system, the most pronounced change came in PCT, perhaps because this group diverged from PWT and PET earlier than these did from each other. PT **ku* became **b* in PCT; PT **kure* > PCT **be* 'fire'; PT **kuari* > PCT **ba* 'mouth'; PT **kuri* > PCT **bi* 'rain'; PT **kuaukari* > PCT **baukai* 'chin'. In these examples, there is also an intervocalic flap **r* deletion reflex in PCT, which precedes the **ku* > **b* reflex. This sound change is nearly complete in PCT. In the other PT languages there is evidence for the intervocalic flap **r* deletion, but also for its creation. When an epenthetic or echo vowel is inserted between *Cr* sequences, the result is an intervocalic flap **r*: CVrV. It is likely that, in time, this flap will delete as it has in PC: PT **tre* > PWT **tre*, PET **tre*, PCT **tere* > **tee* > Ia *te* 'mosquito'.

In the vowel system, two extra high vowels were created in PWT and PCT when the final consonant in closed syllables merged with the preceding vowel. This process in Kirikiri and other Lakes Plain languages is discussed in fuller detail in Clouse and Clouse (1993).

CHART 3: PROTO TARIKU REFLEXES

PT	PWT	PCT	PET	Ref.
<i>*p</i>	<i>*ϕ</i>	<i>*ϕ</i>	<i>*p</i>	15, 52
<i>*t</i>	<i>*t</i>	<i>*t</i>	<i>*t</i>	20, 17
<i>*t̥V</i>	<i>*t̥V</i>	<i>*sV~t̥V</i>	<i>*sV~t̥V</i>	73, 215, 216
<i>*b</i>	<i>*b</i>	<i>*b</i>	<i>*b</i>	213, 6
<i>*d</i>	<i>*d</i>	<i>*d</i>	<i>*d</i>	151, 179, 101
V <i>*dV</i>	<i>*d</i>	<i>*r~*d</i>	<i>*d</i>	159, 171, 177
V <i>*rV</i>	<i>*r~∅</i>	<i>*∅~r</i>	<i>*r~∅</i>	37, 213, 214, 223
<i>*ku</i>	<i>*ku</i>	<i>*b</i>	<i>*ku</i>	5, 37, 88, 54, 95
<i>*k</i>	<i>*k~∅</i>	<i>∅~*k</i>	<i>*k</i>	190, 162, 233, 83
<i>*iC</i>	<i>*i^</i>	<i>*i^</i>	<i>*iC</i>	217, 78, 215
<i>*uC</i>	<i>*u^</i>	<i>*u^</i>	<i>*uC</i>	216, 20
<i>*a</i>	<i>*a</i>	<i>*a</i>	<i>*a</i>	214, 52
<i>*e</i>	<i>*e</i>	<i>*e</i>	<i>*e</i>	107, 88
<i>*i</i>	<i>*i</i>	<i>*i</i>	<i>*i</i>	59, 118, 215
<i>*o</i>	<i>*o</i>	<i>*o</i>	<i>*o</i>	73, 213
<i>*u</i>	<i>*u</i>	<i>*u</i>	<i>*u</i>	101, 83

6. THE DUVLE ISOLATE

There is very limited data on the phonology of Duvle. What is available is in the form of a summary, which does not include examples. There are several features in the limited data, though, that make it an obvious Lakes Plain language. However, there are other features which are very uncharacteristic of Lakes Plain languages. In view of additional lexicostatistical and grammatical evidence (Murdoch n.d.²), it seems apparent that Duvle is more distantly related to the other Lakes Plain languages than any of those languages are to one another. It is possible that the Duvle language was the first to diverge from PT, or even predated PT.

Duvle is identical to PLP in regard to syllable patterns with V, CV and CCV. Additionally, the vowel in each of these patterns can have an offglide. Phonotactically, Duvle is much more complicated than PLP. The second member of a consonant cluster can be a retroflexed flap following /p/, /k/, /b/, /f/, and /v/ or can be a /y/ following all non-back consonants. Consonant clusters with /y/ can also be found in some East Tariku languages, as will be demonstrated later. Whereas this cluster (Cy) is limited to co-occur with the phonemes /s/, /p/ and /k/ in Sikaritai and /s/ and /p/ in Waritai, it has a greater distribution than the retroflexed flap in this position in Duvle.

6.1 CONSONANT SYSTEM

Unique to Duvle is a relatively large number of consonant phonemes. Besides the five found in PLP are the additions of /y/, /f/, /s/, /v/, and /z/. It is most interesting that all of these additions are fricatives (although /y/ fluctuates with /g/ word-initially) and that there are no nasals. Murdoch (n.d.¹) states that there is a lack of nasals in any environment. This lack of even phonetic nasals can be seen in some East Tariku languages as well.

A question arises how these extra consonants came to be, if in fact Duvle descended genetically from a five-consonant PLP. It was seen in the Far West languages, and will be seen in the other languages below, that some consonant innovations stem from the merging of a consonant, usually an alveolar, with a high front vowel to produce an affricate. That this consonant/high vowel coalescence is a possibility for the extra Duvle consonants is more convincing when we see that Duvle has two high front vowels, /i/ and /ɪ/, but the /ɪ/ "has a far greater occurrence than the /i/" (Murdoch n.d.¹). It could be that many of the /i/s are underlying (historically) in the fricative consonants. Further evidence is that there are no examples of the sequence obstruent C/i/V in the Duvle data. The combinations *bia*, *pia*, and *dia* do exist, however. This could be evidence that {v, f, z, ɣ} +V is underlyingly *{b, p, d, k} +*i+*V. In searching the word lists, coming up with clear cognates is difficult. In fact, the situation becomes more confusing as the fricatives could be coming from a variety of sources. It will be clearly demonstrated that PT *kwr and *kw become *wr and *w in PCT (with *w further reducing to b in the modern languages) and *kr and *kw in PWT. In Duvle this seems to have become *fr* and *f* respectively: Du *fræ*, Wa *kwɛ*, Ia *bɛ*, Do *kei*[^] 'thorn' and Du *færi*, Ki *kwa*, Ed *bai*, Ia *ba* 'come'. Duvle v may have come from a similar source: Du *ævisa*, Do *ebisa* 'egg'; Du *ovei*, Do *wei* 'ear'; Du *væirɛ*, Ia *bai*[^] 'sun'; and Du *vada*, Ia *ba* 'shoot'. However, with a flap it seems to have been derived from PT *p: Du *vræ*, and Do *pri* and Wa *φri* 'spit'. The Duvle fricative z is even more mysterious. Both PT *t and *d are good candidates for its source: Du *zæri*, Do *deri* 'tongue', Du *zo*, Do *do* 'sand', and Du *ziri*, Ka *tehei* Er *tei* 'child'. There were not enough cognates with Duvle y to show any possible source.

6.2 VOWEL SYSTEM

Whereas Duvle resembles the East Tariku languages in its consonants and consonant cluster, it resembles the central and western Tariku languages in its vowels. In addition to the five PLP vowels, there are two more high vowels, one front and unrounded and one back and rounded ("slightly fronted and lower than /u/" according to Murdoch n.d.¹).

The Duvle vowel system is:

<i>i</i>		<i>u</i>
<i>ɪ</i>	<i>ʊ</i>	
	<i>e</i>	<i>o</i>
	<i>a</i>	

The innovation of the two extra vowels found in central and western Tariku languages stems from a coalescence of a high vowel with a consonant which closes a syllable (see below). As we have seen, this same kind of process may have produced extra fricative consonants in Duvle. One answer to the dilemma of the extra vowels and consonants in Duvle is that the processes seen in Duvle consonants and central/western Tariku vowels may both be at work, with one process feeding the other.

We will see that in Elopi the emergence of /j/ is a result of the extra high /i^h/. For this process to occur the /i^h/ had to occur first from the coalescence /i/ and a syllable-closing consonant. I propose that perhaps the process emerging in Elopi is merely further along in Duvle than in any of the other Tariku languages. The process just described could be represented in the following way: *iC > *i^h > (C)*i^hV > /extra fricative C/. In other words, the /i/ in a closed syllable coalesces with the following consonant producing an extra high /i^h/. Later the /i^h/, if followed by a vowel, coalesces further with the preceding consonant, producing a fricative consonant. This process might also explain why /i/ (/i^h/?) is so uncommon in Duvle.

To be sure, more data is needed from Duvle so that more cognates can be found, perhaps proving or disproving the hypotheses suggested above. This data would take us a long way to understanding how Duvle became so different from its sister languages. At this point it is sufficient to say that Duvle is genetically related to the Lakes Plain languages, but its exact relationship is still undetermined. Lexicostatistically it seems more related to the East Tariku languages, but the extent to which it has progressed (or digressed) from PT is similar to the Central Tariku languages. For example, whereas the Duvle phonology innovated four extra fricative consonants, Iau innovated four extra tone contrasts. It is for all of these reasons I have suggested that Duvle be considered a family-level isolate.

7. PROTO EAST TARIKU

Although PET was not the most conservative of the PT languages in word innovations, it was the most conservative in phonological innovations: the phonemic inventory and the syllable structure and phonotactics. One minor difference is that PT *tV is retained in a very few instances in east Tariku languages (on numbers), except in Sikaritai where it has been completely replaced by sV.

The two languages furthest to the east (Sikaritai and Waritai) also show some unusual initial consonant clusters. Besides the cluster Cr, there are:

Sikaritai	Waritai	Ref. no.
<i>sg</i>	<i>sg</i>	34, 87, 129
<i>kg</i>		43, 44
<i>pg</i>	<i>pg</i>	19, 142
<i>ts</i>		143

Martin (1991) claims that in Sikaritai the *g* in each of these cases is phonetically γ and is underlying **ik*, (though he does not state why he chose the vowel *i*), thereby maintaining that only flap [ɾ] can be the second member of a consonant cluster. There is some evidence that a vowel did precede the **k*: Si *kʷigʷ*, Ob *kekaigʷ*, Do and Wa *keiki* 'one'. The one occurrence of *tʃ* is cognate with the Obokuitai and Eritai sequences *tis*.

A change that does not seem to be taking place in east Tariku languages is the deletion of intervocalic flap [ɾ]. Although there are a few instances of it in Doutai and Waritai, this deletion is far less common than in either West Tariku or Central Tariku languages.

The question arises, did PET diverge from PT later than PWT because it was phonologically more conservative or did PWT diverge later, because there are, lexicostatistically, more word cognates with PT? More research into grammatical typology may shed some light on the subject.

7.1 PHONOLOGICAL CHANGES FROM PET TO INDIVIDUAL LANGUAGES

As stated earlier, the PET languages are most like PT in terms of phonology. The merging of the syllable-final consonant with the preceding vowel is evident in all the languages producing fricated vowels. However, Obokuitai and Sikaritai have retained the syllable-final consonants but as voiced and unreleased. In addition, the fricative [s], most likely derived from an earlier **ti*, has received full phonemic status. There is some evidence as well that this is continuing to change toward [h]. The affricate [j] is coming into prominence from the sequence *d + i* and/or from the following sequence: fricated vowel (created at the loss of syllable closure) or high vowel in a closed syllable, this followed by a non-extra-high vowel. This conclusion is drawn from the absence of **diV* and **tiV* in these languages and cognates like the following.

Sikaritai	Obokuitai	Kai	Biri	
<i>igʷju-a</i>	<i>igʷje-kwa</i>	<i>iʰja-wa</i>	<i>iʰa-ka</i>	tie
<i>beju-a</i>	<i>badubʷ-kwa</i>	<i>baru-wa</i>	<i>badi</i>	see
Sikaritai	Obokuitai	Kai	Doutai	
<i>kugʷje-wa</i>	<i>sud-o-kwa</i>	<i>kuʰju-wa</i>	<i>sudu-wa</i>	thunder
<i>igʷjekigʷ</i>	<i>sukwigʷ</i>	<i>iʰjekʷiʰje-wa</i>	<i>suʰjakiʰ</i>	night
<i>a-φed</i>	<i>a-sai</i>	<i>a-hai</i>	<i>a-sudo</i>	skin
<i>asito</i>	<i>ahigeigʷ</i>	<i>atahai</i>	<i>aiahi</i>	near

Like all Lakes Plain languages, the eastern Tariku languages lack phonemic nasals. In all of the other languages, the phonetic nasals that do exist do not contrast with their voiced-stop counterpart. A phenomenon is found in these eastern languages, as well as in Duvle, which is most unusual: the lack of even phonetic nasals. A more detailed discussion of this phenomenon is given in Clouse and Clouse (1993). A final point of interest is that where in the West and Central Tariku languages the nasal *m* and *n* are only morpheme initial and fluctuate with *b* and *d* (usually before low vowels), in the East Tariku language of Doutai, *b* and *d* word-initially are, according to McAllister (1991), implosive.

CHART 4: PROTO EAST TARIKU REFLEXES

PET	Do	Wa	Ka	Bi	Ob	Er	Si	Ref.
*p	p~ϕ	p~ϕ	ϕ	h~ϕ	ϕ~h	p~h	p~h	52, 71
*t	t	t	t	t	t	t	t	20, 117, 140
*s	s	s	s	s	s	s	s	73, 76
*b	b	b	b	b	b	b	b	16, 115
*b#	Ø#	Ø#	Ø#	Ø#	bʷ#	Ø#	b~Ø#	13, 20
*d	d	d~t	d	d	d	d	d	125, 151
*dɪV	jV ²²	di	di	di	di	j	j	127, 163
*i^V	i^j	i^jV	i^jV	i^jV	i^jV	i^jV	i^jV	95, 75, 62
*r	Ø	Ø	r	r	r	r	r	37, 88
*Cr	Cr	Cr	Cr	C	Cr	Cr	Cr	12, 42, 52, 119
*ku	ku	ku	ku	b	ku	ku	ku	41
*kV^	kV^	kV^	kV^	V^	kV^	kV^	kV^	40, 83, 97
*C#	Ø#	Ø#	Ø#	Ø#	gʷ#	d#	d/g#	23
*iC	i^	i^	i^	i^	iC	iC~i	iC	23, 41, 97
*uC	u^	u^	u^	u^	uC	uC	uC	125
*a	a	a	a	a	a	a	a	52
*e	ε	ε	ε	ε	ε	ε	ε	88
*i	i	i	i	i	i	i	i	41, 45, 119
*o	o	o	o	o	o	o	o	76
*u	u	u	u	u	u	u	u	83, 101

8. PROTO WEST TARIKU

With regard to the PT daughter protolanguages, PWT was the least innovative lexicostatistically. The PWT consonant system was identical to PT, except that the voiceless bilabial consonant underwent lenition in all positions and two extra vowels were created as a result of a syllable-closing consonant merging with the preceding vowel:

	*t	*k	*i^	*^u	
*b	*d		*i		*u
*ϕ				*ε	*o
				*a	

In addition, PWT *tɪV became [sV] and intervocalic flap *r (that is, intervocalic /*d/ within a morpheme) began to delete. A major change that did occur in PWT was in the syllable structure and vowel system.

² McAllister (1991) claims *iV* exists in Doutai although no example is seen in the word lists in Appendix 3.

8.1 SYLLABLE STRUCTURE AND VOWEL SYSTEM

When PWT diverged from PT the syllable structure simplified, resulting in only V, CV and CCV. The final consonant in syllables that became closed, as a result of a final vowel deleting, merged with the preceding vowel. This affected only the preceding high vowels. These high vowels, **i* and **u*, became higher, fronted, and constricted or fricated and two extra contrasting vowels were created. However, the resulting seven-vowel contrast applies, in Kirikiri at least, mostly to single vowels. The seven vowels contrast in some VV sequences but not all (Clouse and Clouse 1993).

Kaye (1989:56-57) states in effect that it is so far unattested for a language without closed syllables to have consonant clusters (he calls this a "001" or "011" language). However, we can see from some Lakes Plain data that such languages do exist. It should be noted, though, that Kaye's statement seems to be coming true for West Tariku (and other Lakes Plain) languages, for the CCV syllable type is in the process of simplifying further by inserting an epenthetic or echo vowel unconditionally between the consonant cluster, leaving us with "000" or "010" languages. (However, Kaye also states that "010" languages are unattested.) If this process continues as it has in Central Tariku languages, the resulting intervocalic flap **r* will eventually delete and the resulting VV sequence will assimilate. This process may be the cause of Iau's (a Central Tariku language) reported eight tonal contrasts where most of the other Tariku languages have only four contrasts.

8.2 PHONOLOGICAL CHANGES FROM PWT TO KIRIKIRI, FAYU AND TAUSE

Proto West Tariku produced three daughter languages, each with two or three dialects. I will call these three languages Kirikiri (with Faia dialect 89% cognate), Fayu (with Sehudate dialect 81% cognate) and Tause (with Weirate dialect 78% cognate and Deirate dialect 77% cognate). It is worth mentioning that the three languages mentioned have, until four years ago, had very little if any contact with their related dialects. In 1990, for instance, the Kirikiri did not know the Faia existed. This was undoubtedly due to the mountain range and no-man's-land that separated those living in the west Tariku River watershed from those in the Wapoga River watershed. It is not surprising then that we find reflexes shared by the dialects in the Wapoga watershed that are not shared by their corresponding sister dialects in the Tariku watershed.

The most notable features of these three languages are (1) the emergence of nasals word- or morpheme-initial, (2) the creation of [s] from **ti*, (3) the creation of [j] from **di*, and (4) the further simplification of syllable structure to V and CV only (though the processes in (3) and (4) are not complete).

I will refrain from listing the vowel reflexes. Having worked extensively on the Kirikiri vowel system, it seems clear to me that the reliability of the Fayu and Tause word lists in Appendix 3, which were taken before a complete phonological analysis was done, is questionable. Personal investigation of Fayu reveals a vowel system similar to Kirikiri, which is the same as the PWT vowel system.

CHART 5: WEST TARIKU REFLEXES

PWT	Ki	Fa	Fy	Se	Ta	We	De	Ref.
*p	ϕ~h	ϕ~h	ϕ~h	ϕ~h	ϕ	ϕ~h	ϕ~h	117, 119
*t	t	t	t	t	t	t	t	20, 140
*k	k	k	k~g	k	k	k	k	78, 88
Intervocalic *k became k~x~g~y in all languages								10, 80
*#b	b~mb	b	b~mb	b~mb	b~mb	b	b~mb	78, 162
*ba	#ma	#ma	#ma	#ma	#ma	#ma	#ma	43
Intervocalic *b became b~β in all languages								62, 108, 116
*d	d~nd	d	d~nd	d	d~nd	d	d	29, 151
*#da	#na	#na	#na	#na	#da	#da	#da	108, 47, 48
V*dV	r~l-∅	r~∅	r~∅	r~∅	r~∅	r~l~∅	r~l~∅	105, 2, 77
*diV	diV	diV	jV	jV	yV	jV	jV	9, 105
*tiV	sV	sV	sV	sV	sV	sV	sV	215, 73

As stated earlier, how the [s] emerged in these languages is uncertain. The only thing clear is that in most of the languages the sequence *tiV* does not exist but in the Wapoga watershed dialects the sequence *si* does not exist either. Other possible changes are a consonant (flap *r or *k or both) deleting intervocalically in the sequence **tiCV* (there is plenty of evidence of this happening in other contexts), and the resulting **tiV* becoming *sV*. Although, in other instances it looks as though the **CV* or **iC* in the **tiCV* sequences were deleted. Perhaps all of these processes happened to some degree or another at different times, feeding or bleeding the change conditions. Other than that, with the data available, it appears that the [s] in the west Tariku languages emerged randomly. This is doubtful, but more accurate data will be needed to find the answer.

9. PROTO CENTRAL TARIKU

PCT shows a greater number of sound changes from PT than either PET or PWT. This argues for an earlier divergence from PT than PET and PWT. Most of the sound changes that can be seen taking place in PET and PWT seem to have carried through to the greatest extent in the PCT languages. This is especially true for dropping consonants and syllables. This has produced in the modern languages an overwhelming percentage of monosyllabic words and many more contrastive tone patterns compared to modern east and west Tariku languages.

9.1 CENTRAL TARIKU PHONOLOGY

The PCT consonant and vowel systems are similar to those found in PET and PWT, including the two extra high vowels from the merging of a high vowel and a syllable-final consonant and the emergence of *s from the PT sequence **ti*.

	*t	*k	*i^	*^u	
*b	*d		*j		*u
*ϕ/h	*s			*ε	∅*
				*a	

However, lexicostatistically, the Central Tariku languages share fewer cognates with East and West Tariku than East and West Tariku do with each other, also suggesting an earlier divergence.

Phonetic nasals have come into use in the modern Central Tariku languages. The nasal *m* is present morpheme-initially as a variant of *b* in both languages studied. The nasal *n*, is present in Edopi as a morpheme-initial variant of *d*, and in Iau as a variant of *l* in this position. Edopi is also developing the affricate *j* from the sequence *di* and/or from the extra high vowel *i*[^] (giving credence to the idea that the vowel is a result of the merging of a final consonant in a closed syllable with the preceding vowel).

PCT has simplified the syllable structure of PT to V, CV and CVC (very rare). An echo vowel was inserted between the PT *C sequence: PT **kri* > PCT **kiri* > Ed *kiri* 'banana'. In modern Iau a further simplification occurred where the resulting intervocalic **r* was deleted and the identical vowels assimilated: PCT **biri* > **bii* > Ia *bi* 'teeth'; PCT **φere* > **φee* > Ia *φæ* 'eye'.

9.2 PHONOLOGICAL CHANGES FROM PCT TO EDOPI AND IAU

Edopi was phonologically more conservative than Iau in regard to sound changes. Edopi further simplified the syllable structure by deleting the syllable-final consonant (in Iau it is very rare), whereas Iau deleted all occurrences of flap **r*. Iau also deleted word-initial **k* and many final syllables on words. The result was a language of mostly monosyllabic words with combined tone patterns.

CHART 6: CENTRAL TARIKU REFLEXES

PCT	Ed	Ia	Ref.
*C#	Ø#	C# (rare)	217, 245
*CV#	CV#	Ø	57, 108, 156
*φ	<i>h</i>	φ~ <i>h</i>	4, 214, 244
* <i>b</i>	<i>b</i>	<i>b</i>	213
*# <i>b</i>	# <i>m~b</i>	# <i>m~b</i>	69, 72, 99, 111, 158
* <i>d</i>	<i>d</i>	<i>d</i>	151, 57
*# <i>da</i>	# <i>da~na~la</i>	# <i>da~la~na</i>	108, 236, 60, 65, 66
* <i>di</i>	<i>j</i>	<i>di</i>	172
V* <i>r</i> V	<i>r</i>	Ø	8, 9, 16, 18, 29
* <i>t</i>	<i>t</i>	<i>t</i>	20, 217
* <i>s</i>	<i>s~t</i>	<i>s</i>	149, 216, 228
* <i>k</i>	<i>k</i>	<i>k</i>	95
*# <i>k</i>	#Ø	#Ø	10, 19, 52, 180
* <i>au</i>	<i>au</i>	o	62, 149
* <i>i</i> [^]	<i>ji</i> [^]	<i>i</i> [^]	148, 159
* <i>u</i> [^]	<i>u</i> [^] 3	<i>u</i> [^]	

³ Although there are no phonemes marked *u*[^] in the word lists in Appendix 3, both Kim and Kim (1991) and Bateman (1990b) make a three-way phonemic distinction in the back rounded vowels.

PCT	Ed	Ia	Ref.
*i	i	i	151
*u	u	u	83
*e	e	ε	3, 152
*o	o	o	33
*a	a	a	17, 150

10. GRAMMATICAL TYPOLOGY

Although the grammatical data is growing, it is not sufficient to propose genetic relationships. Because this paper mainly concerns reclassifying these languages and since there are good reasons to do so on lexicostatistical and phonological grounds alone, a complete picture of the grammatical typology of the Lakes Plain languages will wait for a later date. What is immediately obvious is that all Lakes Plain languages are verb-final non-Austronesian languages. Also, a typological feature of all Lakes Plain languages is a relatively small amount of verbal affixation (isolating). This is in contrast to what is typical of agglutinative languages of the Trans New Guinea Phylum.

It is also possible that a fair amount of borrowing of pronouns occurred among the languages in the Geelvink Bay Phylum. The blanks in the chart below are a result of lack of data, not necessarily indicating that the particular pronoun does not exist. Three dashes indicate that the pronoun does not in fact exist, but is made by using the vernacular word for 'people'.

CHART 7: LAKES PLAIN PRONOUNS

	1SG	2SG	3SG	1PL	2PL	3PL
Sa	<i>mamire</i>	<i>ba</i>	<i>ki</i>	<i>mamire</i>		<i>niaware</i>
Ra	<i>ebe</i>	<i>debe</i>	<i>kibie</i>	<i>duobi</i>		<i>kiɔio</i>
Aw	<i>yai</i>	<i>nai</i>	<i>ku</i>	<i>e</i>		<i>koro</i>
We	<i>di</i>	<i>ba</i>	<i>we</i>	<i>ai</i>		---
Ta	<i>di</i>	<i>ba</i>	<i>te</i>			---
Fy	<i>a</i>	<i>de</i>		<i>e/i</i>		---
Fa	<i>ε</i>	<i>di</i>				---
Ki	<i>a</i>	<i>de</i>	<i>o</i>	<i>ε</i>	<i>da</i>	---
Ed	<i>a</i>	<i>di</i>	<i>o</i>	<i>e</i>		---
Ia	<i>a</i>	<i>di</i>	<i>au</i>	<i>e</i>	<i>da</i>	---
Du	<i>ε</i>	<i>do</i>	<i>o</i>	<i>a</i>	<i>da</i>	---
Do	<i>i</i>			<i>a</i>		---
Bi	<i>e</i>	<i>de</i>	<i>de</i>	<i>ai</i>		---
Ob	<i>i</i>	<i>di</i>	<i>oi</i>	<i>ai</i>	<i>dai</i>	---
Si		<i>di</i>	<i>ba</i>			---
Bz	<i>e</i>	<i>o</i>	<i>a</i>	<i>i</i>	<i>u</i>	---

11. TONE TYPOLOGY

Tone is a prominent feature of all Lakes Plain languages and therefore was most likely a feature of some of the protolanguages as well. This fact further distances Lakes Plain languages from the Trans New Guinea Phylum. All the modern languages have at least high and low tone. Duvle and Sikaritai have only these tones with Martin (1991) analysing the Sikaritai system as pitch-accent. The remainder of the languages also have combinations of high and low (or contours); Obokuitai has a fall (Jenison 1991), Doutai (McAllister 1991), Edopi (Kim 1995) and all the western Tariku languages have a fall and a rise (Clouse n.d.¹). Iau (Bateman 1990b, Edmonson et al. 1992) claims eight contrastive tones including several rises and falls. Having compared Iau words with cognates in other related languages, it was suggested earlier that many of the complex tone patterns occur because Iau has, historically, deleted consonant and vowel segments of a syllable in the protolanguage but not the tone segments, therefore producing more than one tone pattern on a syllable. It is significant to note that of the eight tones in Iau, four are short and correspond to the four tones found in the other Lakes Plain languages, and the other four are nearly twice as long and occur on long (perhaps geminate?) vowels. They often correspond to cognate two-syllable words in other Lakes Plain languages.

12. PROTO AUSTRONESIAN INFLUENCE

There are several PLP words and many more words in these languages that have striking similarities to Proto Austronesian and Proto Oceanic. Although only a few forms are listed below, someone with more expertise in the field of Austronesian reconstruction could undoubtedly find more. Most of the similarities listed are monosyllabic words (in PLP). Since the Lakes Plain languages have a high percentage of one- and two-syllable words and a very low number of phonemes, the chance for coincidental similarity is high. If these words are in fact borrowings, the question arises why such seemingly core vocabulary would be borrowed.

The following POc-Gr and PAn-D reconstructions were taken from the Wurm and Wilson (1975) *English finderlist of reconstructions in Austronesian languages*.

CHART 8: POSSIBLE AUSTRONESIAN INFLUENCE

PLP	POc-Gr	PAn-D	
*du	*manu	*manuk	bird
*tou	*t'ut'u	*tutu	breast
*dati	*mata	*mata	eye
*pada	*panua	*panu[v]a'	earth
*tuC	*uti(n)	*bu(t)uh	penis
*tau	*tau	*[t]avu[']	person
*ku	*kau	*kaju'	tree
*ti	*tiRi	*i'ë[h]	urine
PET	POc-GR	PAn-D	
*wari	*wai(R)	[dd]anum	water
	POc-BLAA		
*bo	*mpo mpo	----	firewood bundle

13. TOWARD A CLASSIFICATION OF THE LAKES PLAIN LANGUAGES

It is clear from the data presented so far, by means of historical reconstruction, that the languages discussed are related to each other, both in terms of phonology and lexicostatically. How these languages are genetically related to each other has also been shown. Now I attempt to place these languages genetically in the context of a Phylum, that is, to non-Lakes Plain languages. The introduction stated that most of the Lakes Plain languages were classified in Voorhoeve (1975) and Silzer and Clouse (1991) as belonging to the Trans New Guinea Phylum, Tor-Lakes Plain Stock. Therefore, a comparison was made of the major languages bordering the Lakes Plain (Geelvink Bay Phylum languages Bauzi and Demisa to the north and the Trans New Guinea Phylum language Dani to the south), languages in the Tor-Lakes Plain Stock (Berik and Orya) and a language in the far eastern part of the Lakes Plain (Kaure). The percentage matrix and tree diagrams below are based on lexicostatistic similarity (obtained by the computer program LEXISTAT version 2.1 by Thilo C. Schadeberg) with a margin of error of five per cent. The lexicostatistical similarity generated by LEXISTAT is derived from my own decisions listed in Appendix 4.

LEXICOSTATISTIC PERCENTAGE MATRIX

Sa	Rasawa – Saponi										Rasawa										Geelvink Bay										Lakes Plain										Phylum																																		
Sa	--	Ra Family										Stock																																																															
Ra	47	--	Aw Awera Family Isolate																																																																								
Aw	29	34	--	We																																																																							
We	18	19	14	--	De Tause Family																																																																						
De	16	18	14	78	--	Ta																																																																					
Ta	16	18	13	78	7	--	Se West																																																																				
Se	16	15	15	39	39	45	--	Fy Tariku																																																																			
Fy	18	17	17	33	34	39	81	--	Fa Family																																																																		
Fa	15	19	17	37	36	41	44	48	--	Ki																																																																	
Ki	13	13	15	39	33	33	42	46	89	--	Ed Central Tariku																																																																
Ed	10	9	8	34	29	32	35	37	45	43	--	Ia Family																																																															
Ia	11	10	9	34	9	30	35	39	39	42	71	--	Du Duvle Family Iso.																																																														
Du	9	9	10	25	20	22	23	26	29	28	28	28	--	Do																																																													
Do	11	11	10	32	27	26	33	34	37	30	27	26	45	--	Wa East																																																												
Wa	12	13	10	33	28	28	31	33	37	30	30	25	38	73	--	Ka Tariku																																																											
Ka	12	11	8	30	27	25	32	31	38	29	27	25	31	63	63	--	Bi Family																																																										
Bi	13	12	10	33	29	26	37	35	43	35	29	26	28	44	48	49	--	Ob																																																									
Ob	10	10	8	31	27	25	35	33	43	32	30	26	29	51	54	59	60	--	Er																																																								
Er	12	12	10	29	26	24	34	35	37	30	28	25	29	48	52	60	52	75	--	Si																																																							
Si	11	14	12	29	25	24	31	35	33	28	25	22	27	48	51	55	43	49	55	--	Bz																																																						
Bz	5	4	5	10	8	10	12	15	10	11	11	12	7	10	8	11	13	12	10	13	--	Ds																																																					
Ds	8	5	2	9	7	8	11	9	8	8	9	9	6	11	10	10	13	11	10	11	42	--	Kr																																																				
Kr	3	2	2	7	7	7	9	9	11	7	6	6	5	8	7	10	9	8	6	7	2	4	--	Bk																																																			
Bk	1	1	0	3	2	2	4	3	4	2	3	2	1	2	2	2	2	2	2	2	2	3	4	--	Or																																																		
Or	1	0	1	1	2	1	3	1	2	1	1	1	1	1	1	2	1	2	2	1	2	6	3	26	--	Dn																																																	
Dn	0	1	0	2	1	1	1	2	3	2	2	1	1	1	1	2	2	1	2	1	0	1	1	1	--																																																		

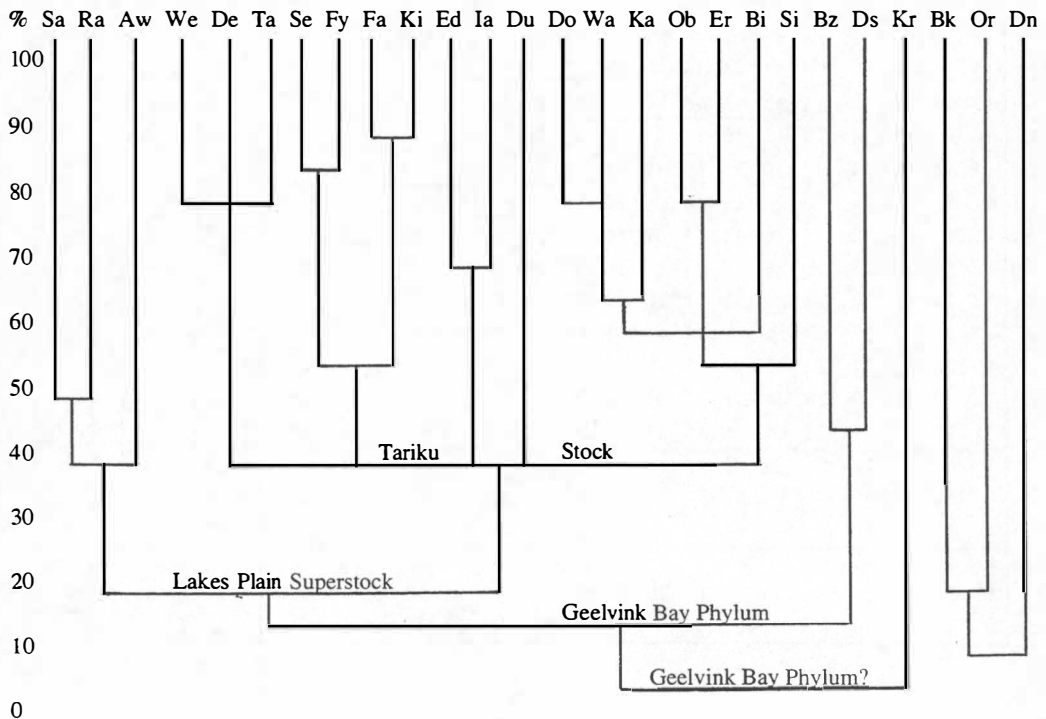
The criteria used in the classification given in the chart above are based mostly on those used for subgroupings in Voorhoeve (1975:16) with some modifications.

- 100% – 76% of shared cognates: dialects of one language
- 75% – 40% of shared cognates: languages of the same family
- 39% – 20% of shared cognates: languages of the same stock
- 19% – 11% of shared cognates: languages of same superstock
- 10% – 5% of shared cognates: languages of the same phylum

The matrix is read by following horizontally, left to right, a line of numbers until it intersects with a vertical line of numbers, read top to bottom. So, following Si (Sikaritai) to the right until it intersects with Er (Eritai), read down, gives 55%.

Several observations can be made from the evidence given that would lead to a reclassification of some of these languages. First, the Lakes Plain languages are not in the same stock as the Tor languages. In fact, they do not seem to be in the same phylum. Second, the Lakes Plain languages clearly belong to the Geelvink Bay Phylum, but they are a different stock from East Geelvink Bay. Finally, the Lakes Plain languages divide into two distinct stocks with five families within the Tariku Stock. It is quite logical that the languages previously classified as East Lakes Plain Family (Foau, Dabra and Taworta) would constitute a sixth family. I have made that assumption in the reclassification that follows. No attempt was made to reclassify the languages outside of the Lakes Plain Superstock (i.e. Kaure), though it should be noted that recent comparisons between Kaure and Lakes Plain grammars give some support to placing Kaure in the Geelvink Bay Phylum.

Based on this information, the following tree diagram was made (generated by the computer program LEXISTAT):



Therefore, I would like to suggest the following reclassification of the Lakes Plain languages.

GEELVINK BAY PHYLUM

Lakes Plain Superstock

Rasawa Stock

Rasawa – Saponi Family

Rasawa

Saponi

Awera Family-Level Isolate

Awera

Tariku Stock

Tause Family-Level Isolate

Tause

(a) Tause

(b) Weirate

(c) Deirate

West Tariku Family

Fayu

(a) Fayu

(b) Sehudate

Kirikiri

(a) Kirikiri

(b) Faia

Central Tariku Family

Edopi

Turu

(a) Iau

(b) Foi

(c) Turu

Duvle Family-Level Isolate

Duvle

East Tariku Family

Doutai

Waritai

Kai

Biritai

Obokuitai

Eritai

Sikaritai

Kwerisa

Papasena

East Lakes Plain Family

Foau

Taworta

Dabra

East Geelvink Bay Stock

Bauzi Family

Bauzi

Demisa

etc. as per Silzer and Clouse (1991)

APPENDIX 1: VOCABULARY OF PROTO LAKES PLAIN

Ref.	English	PLP	PFW	PT	PWT	PCT	PET
4	neck	*kukro	*roko	*kokro	*kokrV		*kro
5	mouth	*kukadi/u	*koru	*kuari	*kuari	*ba	*kua
6	tooth	*bri	*biri	*bri	*bri	*biri	*bri
8	eye	*kudatiCV	*ura	*kurati	*kurati		*kuratiC
9	nose		*boru	*boru			*boru
12	hair/fur	*kru/i		*kru/i	*kru		*kru/i
15	finger nail	*pV	*bV	*pV	*φV	*φo	*pe
16	skin	*φidi	*bi	*φiri	*φire	*iri	*bari
17	meat	*tV	*tV	*tV	*tV	*ta	*tV
19	bone		*be	*kai	*kai	*i	*ai
20	breast	*touCV	*tou	*touC	*tou^	*touC	*touC
21	stomach	*kuria	*wia	*kuria	*kuri		*kuia
26	leg		*tu	*Ca	*Ca	*ta	*a
26b	foot			*to	*to		*to
29	water	*deida	*deire	*dida	*dida	*ida	*wadi
37	fire	*kudaide	*tairo	*kure	*kue	*be	*kure
	adj. suffix	*-we/-die	*-we/-de	*-we/-die	*-we	*-be	*-die
41	stone	*kuijade	*pare	*kuiφae	*kuiφae	*kuiφa	*kuipe
44	one		*kri	*keiki			*keiki
46	three	*didi	*dri	*Cidi	*Cido		*tidi
52	land	*pra/i	*pri	*pra	*φra		*pra
54	path	*kuadi	*arV	*kuari	*kuari	*ba	*kuai
56	wide		*wara				
59	rain	*kurire	*kuie	*kuri	*kuri	*bi	
72	dull	*baCu	*paupe	*baCu	*baCu	*ba	
73	sun	*tio		*tio	*tio	*so	*so
76	moon		*bari				
78	banana	*kriCV	*kiri	*kriC	*kri^	*kiri	*kriC
83	tree	*kuCV	*ku	*kuC	*u	*u	*kuC
84	split		*pekeka				
88	thorn	*kude	*pore	*kure	*kure	*be	*kure
90	seed		*weto		*kaba	*φe	*aCi
97	black	*kVCa	*kuara	*kVC	*kaCa		*kiC
101	bird	*du		*du	*du	*du	*du
103	wing	*auCo	*uko	*auCu	*auro	*apu	*akau

Ref.	English	PLP	PFW	PT	PWT	PCT	PET
105	cassowary	<i>*diadi</i>	<i>*kiri</i>	<i>*diari</i>	<i>*diari</i>	<i>*diari</i>	
106	a fly	<i>*kubadi</i>	<i>*poiti</i>	<i>*kubari</i>	<i>*kuari</i>	<i>*bari</i>	<i>*kuari</i>
107	mosquito	<i>*tide</i>	<i>*tre</i>	<i>*tire</i>	<i>*tire</i>	<i>*tire</i>	<i>*tire</i>
108	dog	<i>*tabi</i>	<i>*kaCo</i>	<i>*tabi</i>	<i>*tiabi</i>	<i>*dabi</i>	<i>*dabi</i>
116	tail	<i>*tiCa</i>		<i>*tiCa</i>	<i>*tiCa</i>	<i>*tia</i>	<i>*tiC</i>
117	fish	<i>*tie</i>	<i>*te</i>	<i>*tie</i>	<i>*tie</i>		<i>*te</i>
118	leech	<i>*kibV</i>	<i>*kiba</i>	<i>*kibi</i>	<i>*ki</i>	<i>*ki</i>	<i>*kibi</i>
119	louse	<i>*pri</i>	<i>*piri</i>	<i>*pri</i>	<i>*φri</i>		<i>*pri</i>
124	long		<i>*pobi</i>	<i>*kure</i>	<i>*kure</i>	<i>*be</i>	<i>*kuri</i>
128	house	<i>*kuadV</i>	<i>*aru</i>	<i>*kuarV</i>	<i>*kua</i>	<i>*urV</i>	<i>*kuari</i>
138	near	<i>*paipai</i>	<i>*paia</i>	<i>*aiφai</i>			<i>*aiφai</i>
140	person	<i>*tau</i>	<i>*du</i>	<i>*tai</i>	<i>*te</i>	<i>*te</i>	<i>*tai</i>
142	bad		<i>*kaibe</i>	<i>*φVra</i>	<i>*φe</i>		<i>*φura</i>
149	child	<i>*tau-bri</i>	<i>*tu-ri</i>	<i>*tau-bri</i>	<i>*tau-bri</i>	<i>*tau-</i>	<i>*tau-bi</i>
151	2SG	<i>*de</i>	<i>*de</i>	<i>*de</i>	<i>*de</i>	<i>*di</i>	<i>*de</i>
152	1PL	<i>*ai</i>	<i>*e</i>	<i>*ai</i>	<i>*ai</i>	<i>*e</i>	<i>*ai</i>
153	3SG		<i>*kibV</i>		<i>*be</i>	<i>*o</i>	<i>*de</i>
159	go/walk	<i>*kidia</i>	<i>*dao</i>	<i>*kidia</i>	<i>*kidia</i>	<i>*dia</i>	
162	hear-STAT	<i>*kuedi-kuda</i>	<i>*beri-kura</i>	<i>*kueri-kua</i>	<i>*beri-kua</i>	<i>*beri-wa</i>	<i>*kueri-kua</i>
164	search		<i>*paka</i>				
168	suck	<i>*tau</i>	<i>*tu</i>	<i>*tau</i>	<i>*taua</i>		<i>*betu</i>
171	vomit	<i>*kadudu</i>	<i>*aru</i>	<i>*karudu</i>	<i>*ku</i>	<i>*u</i>	<i>*krudu</i>
177	scrape	<i>*kiCi</i>	<i>*kibie</i>	<i>*kiri</i>	<i>*kiri</i>	<i>*iri</i>	<i>*bekiri</i>
178	sit	<i>*φuφu</i>	<i>*kua</i>	<i>*φuφu</i>	<i>*φoko</i>	<i>*bau</i>	<i>*buhu</i>
179	stand	<i>*dia-dau</i>	<i>*tarau</i>	<i>*dia-da</i>	<i>*dia-da</i>		
186	grab	<i>*tiadado</i>	<i>*suarau</i>	<i>*araro</i>	<i>*araro</i>	<i>*da</i>	<i>*do</i>
188	blow	<i>*pudV</i>	<i>*purV</i>	<i>*purV</i>	<i>*φura</i>	<i>*φoi</i>	<i>*bu-φuru</i>
190	cough	<i>*takadV</i>	<i>*takari</i>	<i>*takurV</i>	<i>*takuro</i>	<i>*taurai</i>	<i>*takura</i>
213	firewood	<i>*bodi</i>		<i>*bori</i>	<i>*bo</i>	<i>*bori</i>	
214	feaces	<i>*pade</i>		<i>*pare</i>	<i>*φa</i>	<i>*φa</i>	<i>*pare</i>
215	urine	<i>*tiCi</i>		<i>*tiCi</i>	<i>*ti^</i>	<i>*tii</i>	<i>*tiCi</i>
216	penis	<i>*tiuCV</i>		<i>*tiuC</i>	<i>*tiu^</i>	<i>*tiu</i>	<i>*tuC</i>
217	scrotum	<i>*kudiCV</i>		<i>*kuriC</i>	<i>*kui^</i>		<i>*kuiC</i>
223	chin	<i>*kuaukadi</i>		<i>*kuaukari</i>	<i>*kuaukai</i>	<i>*baukai</i>	<i>*kuaukari</i>
233	ant	<i>*keCV</i>		<i>*keC</i>	<i>*ke</i>	<i>*e</i>	<i>*kiC</i>
244	arrow	<i>*poka</i>		<i>*poka</i>	<i>*φoka</i>	<i>*φoka</i>	<i>*poka</i>

APPENDIX 2: ENGLISH FINDERLIST

152.	1PL.INCL	253.	copulate	226.	forehead
150.	1SG	190.	cough	93.	forest
151.	2SG	191.	count	47.	four
154.	3PL	236.	crocodile	89.	fruit
153.	3SG	218.	crooked	127.	full
193.	afraid	195.	cry	79.	garden
51.	all	175.	die	235.	gecko
233.	ant	114.	different	187.	give
244.	arrow	192.	dig	159.	go/walk
39.	ash	11.	dirty	141.	good
142.	bad	108.	dog	250.	goods
78.	banana	247.	door	186.	grab
219.	bandicoot	185.	dream	80.	grass
255.	bat	167.	drink	100.	green
181.	bathe	248.	drum	2.	hair
109.	big	81.	dry	10.	hand
101.	bird	72.	dull	1.	head
115.	bite/chew	53.	dust	162.	hear
97.	black	3.	ear	24.	heart
23.	blood	169.	eat	42.	heavy
188.	blow	102.	egg	227.	heel
12.	body hair	207.	eight	172.	hit
220.	boil (n)	13.	elbow	210.	hole
19.	bone	8.	eye	63.	hot
245.	bow	224.	eyebrow	128.	house
86.	branch	225.	eyelash	145.	husband
257.	breadfruit	182.	fall	132.	in front
20.	breast	139.	far	134.	inside
189.	breathe	18.	fat	239.	ironwood
234.	butterfly	147.	father	262.	kangaroo
256.	canoe	214.	faeces	174.	kill
105.	cassowary	144.	female	228.	knee
258.	centipede	249.	fence	161.	know something
221.	cheek	50.	few	30.	lake
222.	chest	14.	finger	52.	land
149.	child	15.	fingernail	183.	lay
223.	chin	37.	fire	87.	leaf
259.	cloth	213.	firewood	118.	leech
58.	cloud	117.	fish	137.	left
260.	cockroach	48.	five	26.	leg
64.	cold	32.	flow	66.	lightning
246.	comb	212.	flower	176.	live
158.	come	106.	fly	25.	liver
38.	cook	104.	to fly	124.	long
261.	copula	61.	fog	119.	louse

22.	lower back	200.	rub	27.	swollen
143.	male	267.	sago	116.	tail
49.	many	36.	salt	165.	talk
263.	matoa (tree sp.)	113.	same	6.	teeth
74.	midday	33.	sand	209.	ten
76.	moon	177.	scrape	112.	that
107.	mosquito	217.	scrotum	131.	thatch
148.	mother	164.	search	69.	thick
57.	mountain	35.	sea	70.	thin
5.	mouth	163.	see	111.	this
82.	mow	90.	seed	88.	thorn
241.	mud	206.	seven	46.	three
17.	muscle	71.	sharp	204.	throw
157.	name	121.	shoot	65.	thunder
55.	narrow	125.	short	95.	tie
138.	near	229.	shoulder	231.	toe
4.	neck	194.	shy	251.	tomorrow
237.	nest	28.	sick	7.	tongue
129.	new	196.	sing	83.	tree/wood
75.	night	178.	sit	166.	true
208.	nine	205.	six	160.	turn
180.	no/not	16.	skin	45.	two
9.	nose	60.	sky	215.	urine
130.	old	184.	sleep	232.	vein
44.	one	43.	slick	243.	village
133.	outside	110.	small	171.	to vomit
54.	path	92.	smelly	254.	vulva
216.	penis	40.	smoke	202.	wash
140.	person	123.	snake	29.	water
120.	pig	238.	spider	34.	wet
203.	pinch	170.	spit	156.	what
197.	play	84.	split	96.	white
199.	pull	173.	stab	155.	who
198.	push	67.	staff	56.	wide
59.	rain	179.	stand	146.	wife
242.	rainbow	77.	star	62.	wind
126.	rat	21.	stomach	103.	wing
98.	red	41.	stone	201.	wipe
136.	right	68.	straight	122.	worm
31.	river	264.	string bag	99.	yellow
240.	root	168.	such	252.	yesterday
94.	rope	73.	sun		
91.	rotten	230.	sweat		

APPENDIX 3: COMPARATIVE WORD LISTS

This appendix consists of word lists used in the analysis. They were obtained from many different sources using many different phonetic orthographies. The transcriptions of the original word lists have been, in some cases, simplified and converted to the IPA system which gives, for comparative purposes, a workable approximation of the phonic shape of the words. In addition to the IPA, the symbols [^] means 'raised' and [˘] means 'unreleased'. Contrary to IPA, the symbol *j* is used for the voiced palatal affricate and the symbols *y* and *w* are used as semivowels and palatalisation/labialisation of the preceding consonant. Although tonal contrast is found in virtually all of the the Lakes Plain languages, it will not be shown in the word list transcriptions. Additionally, stress is not marked because only a few original word lists marked it and it has not been found to be contrastive in any of the Lakes Plain languages to date. In these word lists, a hyphen marks a morpheme boundary (actual or deduced). A forward slash indicates alternate words with the first word being more common.

Below is a list of the word list sources and other information. I have stuck closely to what the original transcriber wrote, even when the utterance is most obviously a phrase and not a single word. I offer these strictly as additional information as I discounted them in calculating language relatedness.

I have also included an English finderlist to aid the reader in finding specific words. See Appendix 2.

LIST OF ORIGINAL WORD LIST SOURCES

Language:	Awera
Elicitor(s):	L. Jones
Date:	February 1987
Reliability:	Obtained on survey.
Village:	Awera

Language:	Bauzi
Elicitor(s):	Dave Briley
Date:	October 1992
Reliability:	Obtained after extensive time in the language.
Village:	Noiadi

Language:	Berik
Elicitor(s):	P. Westrum
Date:	September 1982
Reliability:	Obtained after extensive time in the language.
Transcription comments:	The transcriptions were written orthographically. The exact quality of the phonemes is uncertain.
Village:	Somanente

Language: Biritai
 Elicitor(s): Duane Clouse
 Reliability: Obtained on survey.
 Date: October 1992
 Village: Biri

Language: Western Dani
 Elicitor(s): Gail Berryman
 Reliability: Obtained after extensive time in the language.
 Date: May 1986
 Transcription comments: Written orthographically.
 Village: Karubaga

Language: Deirate (dialect of Tause)
 Elicitor(s): Duane Clouse
 Reliability: Obtained on survey.
 Date: May 1992
 Transcription comments: *w*'s following consonants are labialised consonants.
 Village: Campsite 37, Wapoga Mutiara Lumber Company

Language: Demisa
 Elicitor(s): Duane Clouse
 Reliability: Obtained on survey.
 Date: 1992
 Transcription comments: Another word list was taken in 1987 by Larry Jones in the village of Desawa on the coast. Although this language was also called Demisa, the lexicostatistical similarity is less than 70 per cent. Since the 1992 survey was taken in an area closer to the Lake Plain speakers, it was used to represent Demisa.
 Village: Campsite 43, Wapoga Mutiara Lumber Company

Language: Doutai
 Elicitor(s): L. McAllister
 Reliability: Obtained after several years in the language.
 Date: April 1986
 Transcription comments: The diagraphs *iy* and *uw* represent a fricativised *i* and *u*. I have used the diagraphs *i*[^] and *u*[^] for uniformity.
 Village: Dou

Language: Duvle
 Elicitor(s): C. Murdoch
 Reliability: Obtained after extensive time in language.
 Date: November 1992
 Transcription comments: Most of the *r*'s in my transcription were written as flap *d* and *l* in Murdoch's transcription.
 Village: Dagai

Language: Elopi
 Elicitor(s): I. Green
 Reliability: Obtained after several years in the language.
 Date: November 1985
 Village: Kordesi

Language: Eritai
 Elicitor(s): D. Martin
 Reliability: Obtained on survey.
 Date: February 1985
 Village: Eri

Language: Faia (dialect of Kirikiri)
 Elicitor(s): D. Clouse
 Reliability: Obtained on survey.
 Date: May 1991
 Village: nomads

Language: Fayu
 Elicitor(s): K. Kügler
 Reliability: Obtained after several years in the language.
 Date: circa 1986
 Transcription comments: The word list was compiled from Kügler's working notes.
 Village: Foida

Language: Iau (dialect of Turu)
 Elicitor(s): J. Bateman
 Reliability: Obtained after extensive time in the language.
 Date: October 1992
 Transcription comments: The digraph *ij* is to be interpreted as a fricativised *i*, written *i*[^] below.
 Village: Iau

Language: Kai
 Elicitor(s): L. McAllister
 Reliability: Obtained on survey.
 Date: April 1986
 Transcription comments: The digraphs *iy* and *uw* represent a fricativised *i* and *u*. They will be written *i*[^] and *u*[^]. Most *k*'s are backed.
 Village: Kai

Language: Kaure
 Elicitor(s): P. Dommel, M. Werner
 Reliability: Obtained on survey.
 Date: May 1985
 Transcription comments: The transcriptions were handwritten and in some cases very difficult to read. In particular, distinguishing *r*, *v* and *u*.
 Village: Lereh

Language: Kirikiri
 Elicitor(s): D. and H. Clouse
 Reliability: Obtained after several years in the language.
 Date: October 1992
 Village: Wahuka

Language: Orya
 Elicitor(s): P. Fields
 Reliability: Obtained after extended time in the language.
 Date: October 1992
 Village: Guay

Language: Obokuitai
 Elicitor(s): S. Jenison
 Reliability: Obtained after several years in the language.
 Date: October 1992
 Village: Obokui

Language: Rasawa
 Elicitor(s): L. Jones
 Reliability: Obtained on survey.
 Date: February 1987
 Transcription comments: Velar stops and fricatives are backed. The velar fricative alternates with aspirated stop.
 Village: Rasawa

Language: Saponi
 Elicitor(s): I. Bouwman and J. Holster
 Reliability: Obtained on survey.
 Date: June 1986
 Village: Botawa

Language: Sehudate
 Elicitor(s): D. Clouse
 Reliability: Obtained on survey.
 Date: May 1992
 Village: nomads

Language: Sikaritai
 Elicitor(s): D. Martin
 Reliability: Obtained after extensive time in the language.
 Date: March 1982
 Transcription comments: The explanation "Cg = stop followed by pharyngeal fricative" was given.
 Village: Sikari

Language: Tause
 Elicitor(s): P. Munnings
 Reliability: Obtained after several years in the language.
 Date: July 1984
 Village: Derapos

Language: Waritai
 Elicitor(s): L. McAllister
 Reliability: Obtained on survey.
 Date: April 1986
 Transcription comments: The digraphs *iy* and *uw* represent a fricativised *i* and *u*. They will be written *i*[^] and *u*[^].
 Village: Taiyeve

Language: Weirate (dialect of Tause)
 Elicitor(s): D. Clouse
 Reliability: Obtained on survey.
 Date: May 1992
 Village: nomads

Language	1. head	2. hair	3. ear	4. neck
SAPONI	<i>nu-ya-re</i>	<i>nu-yawau-re</i>	<i>nu-ya-re</i>	<i>no-royo</i>
RASAWA	<i>u-xa</i>	<i>u-k^ha:</i>	<i>u-ra</i>	<i>u-ru</i>
AWERA	<i>nu-ruwa:-ri</i>	<i>nurua:rio-ru</i>	<i>no:-ri</i>	<i>loguo-βi</i>
WEIRATE	<i>a-guru?</i>	<i>a-guru</i>	<i>a-sa</i>	<i>kɔgru</i>
DEIRATE	<i>a-kude</i>	<i>ta-ru</i>	<i>a-sale</i>	<i>kɔkude</i>
TAUSE	<i>a-xuru</i>	<i>ta-ru</i>	<i>a-za</i>	<i>wayi</i>
SEHUDATE	<i>e-tau</i>	<i>ta-tu</i>	<i>ɛi</i>	<i>esahui</i> (larynx)
FAYU	<i>a-tau</i>	<i>a-datü</i>	<i>ai</i>	<i>eφiai</i>
FAIA	<i>sa-yi</i>	<i>ta-kru</i>	<i>kɛ</i>	<i>ko^uwe</i>
KIRIKIRI	<i>ta</i>	<i>ta-kru[^]</i>	<i>ke</i>	<i>kokai</i>
EDOPI	<i>bau</i>	<i>towa</i>	<i>e</i>	<i>hua</i>
IAU	<i>i[^]</i>	<i>i[^]-su</i>	<i>e</i>	<i>hesi</i>
DUVLE	<i>va^lya^li</i>	<i>tæri</i>	<i>oveⁱ</i>	<i>go^urayai</i>
DOUTAI	<i>si[^]</i>	<i>teri</i>	<i>wei</i>	<i>gori</i>
WARITAI	<i>ɛi[^]da</i>	<i>tri[^]</i>	<i>wi[^]te</i>	---
KAI	<i>awa-tgo</i>	<i>awa-ripro^u</i>	<i>aw-iso</i>	---
BIRITAI	<i>au-xai</i>	<i>hoyi</i>	<i>a-kai</i>	<i>a-rətai</i>
OBOKUITAI	<i>a-horub⁷</i>	<i>hoig⁷</i>	<i>a-kwei</i>	<i>a-krotei</i>
ERITAI	<i>o-horu</i>	<i>hiri</i>	<i>o-kwei</i>	---
SIKARITAI	<i>awa-ta</i>	<i>ted⁷</i>	<i>au-g⁷so</i>	---
KAURE	<i>pɔklai</i>	<i>hat</i>	<i>huaglüt</i>	<i>tuhuin</i>
BAUZI	<i>ohula</i>	<i>ohuta</i>	<i>dogoi</i>	<i>tuhu</i>
BERIK	<i>dwak</i>	<i>nabal safa</i>	<i>i-mwa</i>	---
ORYA	<i>nol</i>	<i>nolala</i>	<i>i-mwa</i>	<i>hole</i>
DANI	<i>anobak</i>	<i>eeruwak</i>	<i>aruk</i>	<i>enggaanok</i>
DEMISA	<i>ohuda</i>	<i>ohutai</i>	<i>hema</i>	<i>ju</i>

Language	5. mouth	6. teeth	7. tongue	8. eye
SAPONI	<i>ni-yowo-re</i>	<i>ni-herɛ</i>	<i>nu-rɛ-rɛ</i>	<i>nu-rai-ɛ</i>
RASAWA	<i>ɔ</i>	<i>ɔ-βi</i>	<i>iso:kɔ</i>	<i>ɔra</i>
AWERA	<i>no-yo:u</i>	<i>no:-βi</i>	<i>no-ri</i>	<i>uruwe:-ri</i>
WEIRATE	<i>a-wao</i>	<i>a-bəri</i>	<i>kezəru</i>	<i>waye</i>
DEIRATE	<i>kwa-dude</i>	<i>a-bire</i>	<i>kisudi</i>	<i>kwakəne</i>
TAUSE	<i>a-kwa</i>	<i>a-bəri</i>	<i>kezəru</i>	<i>waeye</i>
SEHUDATE	<i>gudatɔ</i>	<i>e:ri</i>	<i>ai</i>	<i>ɛtate</i>
FAYU	<i>a-ui</i>	<i>ɛri</i>	<i>ai</i>	<i>atate</i>
FAIA	<i>uφəri</i>	<i>uri</i>	<i>oma</i>	<i>kla</i>
KIRIKIRI	<i>borakwari</i>	<i>uri</i>	<i>abla</i>	<i>kla</i>
EDOPI	<i>bu</i>	<i>bidi</i>	<i>aia</i>	<i>hæræ</i>
IAU	<i>be</i>	<i>bi^/bi^ho</i>	<i>ae</i>	<i>φæ</i>
DUVLE	<i>oraya</i>	<i>æbidi</i>	<i>zæri</i>	<i>gari</i>
DOUTAI	<i>webo/wobo</i>	<i>ɛbri^</i>	<i>deri</i>	<i>wra</i>
WARITAI	<i>wɛ</i>	<i>bi^</i>	<i>route</i>	<i>wa</i>
KAI	<i>a-wɛ</i>	<i>a-bri^</i>	<i>a-rije</i>	<i>awa-ti^</i>
BIRITAI	<i>a-kau</i>	<i>a-hi</i>	<i>a-ria</i>	<i>a-u</i>
OBOKUITAI	<i>a-kwe</i>	<i>a-brid^</i>	<i>a-rija</i>	<i>a-u</i>
ERITAI	<i>o-kwe</i>	<i>ɛhiri</i>	<i>etida</i>	<i>o-kwati</i>
SIKARITAI	<i>a-wɛ</i>	<i>a-pid^</i>	<i>a-sig^ja</i>	<i>a-patig^</i>
KAURE	<i>bloküit</i>	<i>spgai</i>	<i>srumu</i>	<i>hwai</i>
BAUZI	<i>aha</i>	<i>mo</i>	<i>iso</i>	<i>faxo</i>
BERIK	<i>ærem</i>	<i>ol</i>	<i>maflam</i>	<i>nue</i>
ORYA	<i>mip</i>	<i>æk</i>	<i>mahal</i>	<i>nwe</i>
DANI	<i>ambe</i>	<i>eyak/ik</i>	<i>amela</i>	<i>enegen</i>
DEMISA	<i>aha</i>	<i>molu</i>	<i>itsa</i>	<i>halukwa</i>

Language	9. nose	10. hand	11. dirty	12. body hair
SAPONI	<i>nu-wo-re</i>	<i>nu-yoⁱe</i>	<i>yaⁱe</i>	<i>no-yoabrie</i>
RASAWA	<i>u-βu</i>	<i>o-βoko</i>	<i>bekeβiye</i>	<i>o-βiye</i>
AWERA	<i>o-wo:rua</i>	<i>o-βu</i>	<i>aiβau</i>	<i>wo:u</i>
WEIRATE	<i>a-jage</i>	<i>a-ga</i>	<i>kaφudi</i>	<i>kasuφu</i>
DEIRATE	<i>a-dyokwane</i>	<i>a-ka</i>	<i>a-kakahu</i>	<i>kasu</i>
TAUSE	<i>a-tiaxe</i>	<i>a-xa</i>	<i>kaka</i>	<i>kasu</i>
SEHUDATE	<i>ε-φodi</i>	<i>dəhai</i>	<i>koadi</i>	<i>ε-satu</i>
FAYU	<i>oφori</i>	<i>ada</i>	---	---
FAIA	<i>hadua</i>	<i>ediə</i>	---	<i>klu[^]</i>
KIRIKIRI	<i>faisia</i>	<i>edia</i>	<i>kouwe</i>	<i>klu[^]</i>
EDOPI	<i>toro</i>	<i>kai</i>	---	<i>idi towa</i>
IAU	<i>tə</i>	<i>oi</i>	<i>na</i>	<i>su</i>
DUVLE	<i>vri goⁱre</i>	<i>oreki</i>	<i>kori</i>	---
DOUTAI	<i>boru[^]</i>	<i>gai[^]</i>	<i>ki[^]</i>	<i>ekri</i>
WARITAI	<i>boru[^]</i>	<i>ei[^]da</i>	<i>ki[^]</i>	<i>ruki</i>
KAI	<i>a-harwesa</i>	<i>a-kai</i>	<i>ki[^]</i>	<i>a-keri</i>
BIRITAI	<i>a-husi</i>	<i>ai[^]</i>	---	<i>a-ru</i>
OBOKUITAI	<i>a-horusig^ʔ</i>	<i>a-kai</i>	<i>ki g^ʔ</i>	<i>a-kri</i>
ERITAI	<i>orusa</i>	<i>a-kai</i>	<i>tibihei</i>	<i>o-rue</i>
SIKARITAI	<i>a-pot^ʔ</i>	<i>a-la</i>	<i>ig^ʔjekid^ʔ</i>	<i>uri</i>
KAURE	<i>hapu</i>	<i>obla</i>	<i>da</i>	<i>kambelihai</i>
BAUZI	<i>omto</i>	<i>anekeha</i>	<i>gihobut</i>	<i>talū</i>
BERIK	<i>mase</i>	<i>tafa</i>	<i>ortunoboro</i>	<i>safa</i>
ORYA	<i>mase</i>	<i>taha</i>	<i>enen-na</i>	<i>timala</i>
DANI	<i>ogobak</i>	<i>eenggi</i>	<i>mili</i>	<i>amoori</i>
DEMISA	<i>omata</i>	<i>neha</i>	<i>nea</i>	<i>tarehe</i>

Language	13. elbow	14. finger	15. fingernail	16. skin
SAPONI	<i>wawo-re</i>	<i>furo-re</i>	<i>fura-je</i>	<i>βuwe-je</i>
RASAWA	<i>ukariye</i>	<i>oβokopra</i>	<i>oβru</i>	<i>uβi</i>
AWERA	<i>o:-ri</i>	<i>irigya:βo</i>	<i>oroβæ</i>	<i>a'βia</i>
WEIRATE	<i>kariawa</i>	<i>a-yakai</i>	<i>φe</i>	<i>katia</i>
DEIRATE	<i>a-xai</i>	<i>a-ka</i>	<i>toro-φe</i>	<i>kasu</i>
TAUSE	<i>kariawa</i>	<i>a-xa-kai</i>	<i>axa-φe</i>	<i>katia</i>
SEHUDATE	<i>ε-de-kwou</i>	<i>eta</i>	<i>ta fodi</i>	<i>esa</i>
FAYU	<i>a-tai</i>	<i>atao</i>	<i>oφoru</i>	<i>asa</i>
FAIA	<i>ha'idlu</i>	<i>edi-ki</i>	<i>edi-ho</i>	<i>i^ε</i>
KIRIKIRI	<i>kibu^</i>	<i>edia-ki^</i>	<i>edia-φo</i>	<i>φi'^e</i>
EDOPI	<i>kouhu</i>	<i>kai</i>	<i>kai-ho</i>	<i>iri</i>
IAU	<i>oho</i>	<i>oi-si</i>	<i>ho</i>	<i>i</i>
DUVLE	---	<i>o-re-ki kre-ywa</i>	---	<i>a-βa-si</i>
DOUTAI	<i>erikaru^</i>	---	<i>ε-ria</i>	<i>basi^</i>
WARITAI	<i>riku^</i>	---	<i>ria</i>	<i>bariso</i>
KAI	<i>a-ruku</i>	---	<i>a-ria</i>	<i>a-hai^</i>
BIRITAI	<i>a-du</i>	<i>ai^</i>	<i>a-ria</i>	<i>a-sudo</i>
OBOKUITAI	<i>a-kug'</i>	<i>a-kai-kwre</i>	<i>a-ria</i>	<i>a-harig'/a-sai</i>
ERITAI	<i>e-riku</i>	<i>kreko</i>	<i>e-ria</i>	<i>ε-haikai</i>
SIKARITAI	<i>ad'kad'</i>	<i>a-ure</i>	<i>a-pet'</i>	<i>a-φed'</i>
KAURE	<i>hwaihui</i>	<i>waembeli</i>	<i>wagi</i>	<i>axlit</i>
BAUZI	<i>neuha</i>	<i>anekehaso</i>	<i>odohofet</i>	<i>sokoba</i>
BERIK	<i>golo</i>	<i>bor</i>	<i>otoma</i>	<i>tifin</i>
ORYA	<i>ausu</i>	<i>bola</i>	<i>ongkola</i>	<i>sop</i>
DANI	<i>yungguk</i>	<i>enggabit</i>	<i>enegen</i>	<i>agabelo</i>
DEMISA	<i>nihabo</i>	<i>neha</i>	<i>otoda</i>	<i>hio</i>

Language	17. muscle	18. fat	19. bone	20. breast
SAPONI	<i>nu-yuwaⁱo-rɛ</i>	<i>fɔɔwɔwɔ</i>	<i>wawɛ-r</i>	<i>turureⁱ</i>
RASAWA	<i>u-ru</i>	<i>iba</i>	<i>wɛβi</i>	<i>tu</i>
AWERA	<i>o-ro:ru</i>	<i>a:βo</i>	<i>aβɛ:ri</i>	<i>rou</i>
WEIRATE	<i>a-rɛ</i>	<i>soja</i>	<i>kai</i>	<i>to</i>
DEIRATE	<i>a-xwa</i>	<i>soia</i>	<i>kai</i>	<i>to</i>
TAUSE	<i>a-diφe</i>	---	<i>kai</i>	<i>to</i>
SEHUDATE	<i>di</i>	---	---	<i>ti</i>
FAYU	---	<i>φu</i>	---	<i>tüi</i>
FAIA	<i>dɔ</i>	<i>hu</i>	<i>ki</i>	<i>tu</i>
KIRIKIRI	<i>dɔ</i>	<i>φu[^]</i>	<i>ki[^]</i>	<i>tu</i>
EDOPI	<i>ta:</i>	<i>dereri</i>	<i>i</i>	<i>tue</i>
IAU	<i>ta</i>	<i>dɛi</i>	<i>i[^]</i>	<i>tui</i>
DUVLE	<i>oriri</i>	<i>orir kara</i>	<i>kæ-ri-a</i>	<i>do</i>
DOUTAI	---	<i>pu[^]</i>	<i>sobogu</i>	<i>wɛi[^]a</i>
WARITAI	---	<i>ki[^]pɛ</i>	<i>raku[^]so</i>	<i>tou</i>
KAI	---	<i>a-kabi-φaio</i>	<i>a-sa</i>	<i>tou[^]</i>
BIRITAI	<i>a-ra</i>	<i>hu[^]</i>	<i>a-hai[^]</i>	<i>tou[^]</i>
OBOKUITAI	<i>a-kra</i>	<i>hub^ʔ</i>	<i>a-baig^ʔ</i>	<i>to^{ubʔ}</i>
ERITAI	---	---	<i>e-sra</i>	<i>tou</i>
SIKARITAI	<i>ata</i>	---	<i>a-gat^ʔ</i>	<i>to</i>
KAURE	<i>hapui</i>	<i>pɛhɔkai</i>	<i>laq</i>	<i>muq</i>
BAUZI	<i>nubu</i>	<i>nɛhu</i>	<i>fa</i>	<i>ahudɛ</i>
BERIK	---	---	<i>ælna</i>	<i>mom</i>
ORYA	<i>nin</i>	<i>hanan</i>	<i>dan</i>	<i>mom</i>
DANI	<i>enggangum</i>	<i>amok</i>	<i>owak</i>	<i>elak</i>
DEMISA	<i>betinukwa</i>	<i>nehu</i>	<i>heta</i>	<i>ubra</i>

Language	21. stomach	22. lower back	23. blood	24. heart
SAPONI	<i>nu-wɛ-rɛ</i>	<i>nu-ɣɔ-re</i>	<i>no-reⁱ</i>	<i>nɔ-wu-reⁱ</i>
RASAWA	<i>u-βaro</i>	<i>o-xawɛβe</i>	<i>u:yo</i>	<i>tura</i>
AWERA	<i>a-βara</i>	<i>a-βaru</i>	<i>oβu</i>	<i>ou</i>
WEIRATE	<i>kri</i>	<i>koyoi</i>	<i>ama</i>	<i>akɔ</i>
DEIRATE	<i>ki</i>	<i>koke</i>	<i>ama</i>	<i>kwesa</i>
TAUSE	<i>kri</i>	<i>koyai</i>	<i>aφa</i>	<i>axo</i>
SEHUDATE	<i>ɛri</i>	<i>ɔɣ^odɔφui</i>	<i>kare</i>	<i>obədu</i>
FAYU	<i>ɛri</i>	<i>ɔhrai</i>	<i>kare</i>	<i>ɔru</i>
FAIA	<i>tau</i>	<i>kuri-ki</i>	<i>kuru</i>	<i>kɔru</i>
KIRIKIRI	<i>tau</i>	<i>kuri-ki[^]</i>	<i>klu</i>	<i>kɔru</i>
EDOPI	<i>tao</i>	<i>toida</i>	<i>aurai</i>	<i>ou</i>
IAU	<i>ai[^]</i>	<i>φɔɛ</i>	<i>oe</i>	<i>o</i>
DUVLE	<i>ori</i>	<i>vayaⁱ</i>	<i>sæⁱre</i>	<i>gebe</i>
DOUTAI	<i>owi</i>	<i>warigra</i>	<i>sai[^]</i>	<i>wabi[^]</i>
WARITAI	<i>kiko</i>	<i>kerai</i>	<i>sai[^]</i>	<i>wabi[^]</i>
KAI	<i>a-wia</i>	<i>a-keidai[^]aka</i>	<i>sai[^]</i>	<i>a-wabi[^]</i>
BIRITAI	<i>kiare</i>	<i>atiso</i>	<i>du</i>	<i>kɔhai</i>
OBOKUITAI	<i>a-ub^ʔ</i>	<i>a-kikub^ʔ</i>	<i>saiɡ^ʔ</i>	<i>a-kub^ʔde</i>
ERITAI	<i>o-kwia</i>	<i>e-taru</i>	<i>said^ʔ</i>	<i>o-kugde</i>
SIKARITAI	<i>a-wia</i>	<i>a-hug^ʔ</i>	<i>saⁱd^ʔ</i>	<i>a-ug^ʔje</i>
KAURE	<i>kɔit</i>	<i>hamsi</i>	<i>hi</i>	<i>kaxlit</i>
BAUZI	<i>asum</i>	<i>tahazɔhɔ</i>	<i>vasea</i>	<i>ahula</i>
BERIK	<i>witifin</i>	<i>duru</i>	<i>æwis</i>	<i>i</i>
ORYA	<i>u</i>	<i>tahan dan</i>	<i>kal</i>	<i>bwis dan</i>
DANI	<i>aanugum</i>	<i>anggunuwak</i>	<i>amiya</i>	<i>iniki</i>
DEMISA	<i>asuma</i>	<i>boka</i>	<i>nahabi</i>	<i>auwa</i>

Language	25. liver	26. leg	27. swollen	28. sick
SAPONI	<i>nu-eⁱwei-je</i>	<i>no-su-reⁱ</i>	<i>ma-γowɔ</i>	<i>fɔ-γowɔ</i>
RASAWA	<i>o-koyo</i>	<i>u-ru</i>	<i>pakogijɔ</i>	<i>ɔsɔkorekaβɔ</i>
AWERA	<i>rowæ</i>	<i>ruwa</i>	<i>kri:βe</i>	<i>kruβaβe</i>
WEIRATE	<i>oraki</i>	<i>a-φra</i>	<i>kaitaβe</i>	<i>φaiφɔjara</i>
DEIRATE	<i>oke</i>	<i>kaⁱ</i> (thigh)	---	<i>φananu</i>
TAUSE	---	<i>a-to</i> (foot)	---	<i>kweβau</i>
SEHUDATE	<i>aⁱohwi</i>	<i>a-ha</i> (thigh)	---	<i>bokoi</i>
FAYU	<i>a-taru</i>	<i>a-tai</i>	---	<i>teho/süro</i>
FAIA	<i>kuru</i>	<i>hai</i> (thigh)	---	<i>eheki?</i>
KIRIKIRI	<i>kuru</i>	<i>φa</i> (thigh) <i>touwa</i> (foot)	<i>φi</i>	<i>sua</i>
EDOPI	<i>ta</i>	<i>ta</i>	<i>heie</i>	<i>suai</i>
IAU	<i>ta</i>	<i>tai</i> (thigh)	<i>hi</i>	<i>su</i>
DUVLE	<i>gæri</i>	<i>fria</i>	<i>fo^u</i>	<i>suroro</i>
DOUTAI	---	<i>garu/gari</i>	<i>φo</i>	<i>keba-kiri-wa</i>
WARITAI	---	<i>ro</i>	---	<i>kebai-wa</i>
KAI	---	<i>a-to</i>	---	<i>iri-wa</i>
BIRITAI	<i>a-u[^]de</i>	<i>a-to</i> (foot) <i>a-hai</i> (thigh)	---	<i>haidəka</i>
OBOKUITAI	<i>a-kude</i>	<i>a-hig⁷</i> (thigh)	<i>kueig⁷</i>	<i>asiadu</i>
ERITAI	---	<i>o-to</i> (foot)	---	<i>esaioruku</i>
SIKARITAI	---	<i>a-to</i> (foot)	---	<i>jisakidoa</i>
KAURE	<i>phue</i>	<i>due</i>	<i>kahakgiud</i>	<i>ya?</i>
BAUZI	<i>aleho</i>	<i>nao</i>	<i>dəda</i>	<i>gaile</i>
BERIK	---	<i>tof</i>	---	<i>bwera</i>
ORYA	<i>en</i>	<i>tana</i>	<i>hana gwen</i>	<i>sang-sang-na</i>
DANI	<i>ogogun</i>	<i>iyok</i>	<i>piirik</i>	<i>andi</i>
DEMISA	<i>imβapa</i>	<i>naro</i>	<i>nodedaha</i>	<i>hateha</i>

Language	29. water	30. lake	31. river	32. flow
SAPONI	<i>nɛi-ɛ</i>	<i>ɛɛ-je</i>	<i>ne-waio-re</i>	<i>nɛ-keiwo</i>
RASAWA	<i>de:-ye</i>	<i>de-keri:-ye</i>	<i>de:-deke</i>	<i>soro:yaβo</i>
AWERA	<i>næ-re</i>	<i>tuwoβo</i>	<i>surukoβa</i>	<i>takra:dio</i>
WEIRATE	<i>ira</i>	<i>ira-waφe</i>	<i>kabra</i>	---
DEIRATE	<i>ira</i>	<i>ira</i>	<i>ira</i>	---
TAUSE	<i>era</i>	---	<i>kiβo</i>	---
SEHUDATE	<i>di</i>	<i>di</i>	<i>di</i>	<i>jau</i> (see 'go')
FAYU	<i>di</i>	<i>daure</i>	<i>di</i>	---
FAIA	<i>ira</i>	<i>ira</i>	<i>iyate</i>	---
KIRIKIRI	<i>na</i>	<i>doφu</i>	<i>doφu</i>	<i>kia</i>
EDOPI	<i>ida</i>	<i>duhu</i>	<i>ida</i>	<i>bejai</i>
IAU	<i>e</i>	<i>e-dao</i>	<i>e</i>	---
DUVLE	<i>dæ ~ de</i>	<i>dæ korua</i>	<i>de</i>	<i>suoro</i>
DOUTAI	<i>wari</i>	<i>korua</i>	<i>wari</i>	---
WARITAI	<i>wari</i>	<i>kruwa</i>	<i>wari</i>	---
KAI	<i>waro</i>	<i>korua</i>	<i>awai</i>	---
BIRITAI	<i>bau</i>	<i>akua</i>	<i>aso</i>	---
OBOKUTTAI	<i>arig⁷</i>	<i>kwahare</i>	<i>arig⁷</i>	---
ERITAI	<i>sia</i>	<i>kore</i>	<i>sia</i>	---
SIKARITAI	<i>wa</i>	<i>kore</i>	<i>wetai</i>	---
KAURE	<i>biq</i>	<i>bihuig</i>	<i>bikropi/simbar</i>	<i>yakə⁷</i>
BAUZI	<i>vao</i>	<i>ita</i>	<i>vao aada</i>	<i>tæ</i>
BERIK	<i>fo</i>	<i>fo boga</i>	<i>fo</i>	---
ORYA	<i>ho</i>	<i>ho gutu</i>	<i>weya</i>	<i>tinen</i>
DANI	<i>niyo</i>	<i>yi yenggenak</i>	<i>yi naga</i>	<i>yi wuke</i>
DEMISA	<i>wote</i>	<i>wobəlimasa</i>	---	---

Language	33. sand	34. wet	35. sea	36. salt
SAPONI	<i>kewi-re</i>	<i>nufe-je</i>	<i>neiwe-je</i>	<i>ka^uwε-je</i>
RASAWA	<i>keβi</i>	<i>du:βi-ye</i>	<i>i:-ye</i>	<i>boka'jβε</i>
AWERA	<i>neya</i>	<i>paya:dida</i>	<i>mæ</i>	<i>sieβε</i>
WEIRATE	<i>jase</i>	<i>kawa</i>	---	---
DEIRATE	<i>jase</i>	<i>ira kaba-boru</i>	---	---
TAUSE	---	<i>kaba</i>	---	---
SEHUDATE	<i>kwe?</i>	---	---	---
FAYU	---	---	---	---
FAIA	<i>kari</i>	---	---	---
KIRIKIRI	<i>kari</i>	<i>wawe</i>	---	<i>baiyu</i> (Dani)
EDOPI	<i>o</i>	<i>bidēbei</i>	---	<i>baiyu</i> (Dani)
IAU	<i>o</i>	<i>bε-bε</i>	---	<i>bai^u</i> (Dani)
DUVLE	<i>zo</i>	<i>dε tɿɿ</i>	---	---
DOUTAI	<i>do</i>	<i>t̪gi</i>	---	<i>gara</i> (Indo.)
WARITAI	<i>do</i>	<i>kei[^]</i>	---	<i>gara</i> (Indo.)
KAI	<i>oreki[^]</i>	<i>kwei[^]</i>	---	<i>gara</i> (Indo.)
BIRITAI	<i>do</i>	<i>kai[^]</i>	---	---
OBOKUITAI	<i>do</i>	<i>kueig⁷</i>	---	<i>kara</i> (Indo.)
ERITAI	<i>so</i>	<i>kweyei</i>	---	---
SIKARITAI	<i>oreta</i>	<i>sgiako</i>	---	---
KAURE	<i>birse</i>	<i>tεmbar</i>	<i>poxle</i>	<i>poxle</i>
BAUZI	<i>keβε</i>	<i>eksobut</i>	---	---
BERIK	<i>dwis</i>	<i>titi-ni</i>	<i>fī</i>	<i>fī</i>
ORYA	<i>hisglim</i>	<i>bitris-ni</i>	<i>hi</i>	<i>hi</i>
DANI	<i>mbini</i>	<i>miin</i>	<i>yi nggwok</i> <i>yenggenak</i>	<i>mayu</i>
DEMISA	<i>itəra</i>	<i>babetše</i>	---	---

Language	37. fire	38. cook	39. ash	40. smoke
SAPONI	<i>ta-re</i>	<i>wara^u</i>	<i>ha-re</i>	<i>ta-waⁱe</i>
RASAWA	<i>tayo</i>	<i>tuβokaβo</i>	<i>tako</i>	<i>uxaiyo</i>
AWERA	<i>na:ru</i>	<i>pai:yo</i>	<i>na:re</i>	<i>o:βu</i>
WEIRATE	<i>kaye</i>	<i>φije</i>	<i>oφa-yei</i>	<i>kayi-kasa</i>
DEIRATE	<i>kaji</i>	<i>φido</i>	<i>oφa-kai</i>	<i>kai-kase</i>
TAUSE	<i>kai[^]i</i>	<i>beφoyau</i>	<i>oβo-xai</i>	<i>kai[^]i-kasa</i>
SEHUDATE	<i>kwe</i>	<i>ido</i>	<i>adi (ember)</i>	---
FAYU	<i>kwe</i>	---	<i>aha</i>	<i>γo-yai</i>
FAIA	<i>kwe</i>	<i>kwe-ye</i>	<i>uri (ember)</i>	<i>koi</i>
KIRIKIRI	<i>kwe</i>	<i>kwe-ya</i>	<i>uri (ember)</i>	<i>kai</i>
EDOPI	<i>be</i>	<i>beye</i>	<i>be-ora</i>	<i>be-bie</i>
IAU	<i>be</i>	<i>bae</i>	<i>a</i>	<i>be-bi</i>
DUVLE	<i>bo</i>	<i>pi</i>	<i>bo daba</i>	<i>bo kasi</i>
DOUTAI	<i>kwre</i>	<i>pou-wa</i>	<i>owi</i>	<i>kwre-ki[^]</i>
WARITAI	<i>kwe</i>	<i>pgou-wa</i>	<i>kasi[^]</i>	<i>kwre-ki[^]</i>
KAI	<i>so</i>	<i>soφei-wa</i>	<i>kasi</i>	<i>so-kwagai</i>
BIRITAI	<i>ke</i>	<i>ke-dika</i>	<i>kecoi</i>	<i>ke-ai</i>
OBOKUITAI	<i>kwe</i>	<i>hoig⁷-kwa</i>	<i>kesi</i>	<i>kwa-kai</i>
ERITAI	<i>kure</i>	<i>hoiku</i>	<i>kasi</i>	<i>kura-kai</i>
SIKARITAI	<i>kure</i>	<i>huegwa</i>	<i>kasig⁷</i>	<i>kura-kad⁷</i>
KAURE	<i>sa[?]</i>	<i>hambadi</i>	<i>sendai</i>	<i>sapung</i>
BAUZI	<i>vua</i>	<i>ohu</i>	<i>ohu fau</i>	<i>vua ahubu</i>
BERIK	<i>tokwa</i>	<i>gwalana</i>	<i>son</i>	<i>nunggwan</i>
ORYA	<i>syauk</i>	<i>tailbⁱngin</i>	<i>son</i>	<i>but</i>
DANI	<i>kani</i>	<i>kani nengge</i>	<i>wun awi</i>	<i>kaluk</i>
DEMISA	<i>gwa</i>	<i>ngwawahu</i>	<i>uyu[?]u</i> <i>mendarak</i>	<i>uywo</i>

Language	41. stone	42. heavy	43. slick	44. one
SAPONI	<i>pa-re</i>	<i>u-fe-je</i>	<i>we-fe-je</i>	<i>kiri-pe-je</i>
RASAWA	<i>pa</i>	<i>u-βie</i>	<i>tuβi-βie</i>	<i>kri-βi</i>
AWERA	<i>ta:ru</i>	<i>piwi-re</i>	<i>ro:ru-βe</i>	<i>pri-ya</i>
WEIRATE	<i>kue</i>	<i>debri</i>	---	<i>iraye</i>
DEIRATE	<i>kwei</i>	<i>dei</i>	<i>kakwe</i>	<i>idaka</i>
TAUSE	<i>kwe</i>	<i>deβri</i>	<i>kadere</i>	<i>edaxe</i>
SEHUDATE	<i>φai</i>	---	---	<i>baha</i>
FAYU	<i>φai</i>	---	---	<i>baha</i>
FAIA	<i>hai</i>	<i>towao</i>	---	<i>kode</i>
KIRIKIRI	<i>φai/kui^a</i>	<i>fadau-we</i>	<i>mau-we</i>	<i>suo-we</i>
EDOPI	<i>biho/horo</i>	<i>hi-bai</i>	<i>edi-bai</i>	<i>busu-we</i>
IAU	<i>φeki</i>	<i>i-be</i>	<i>tai-be</i>	<i>bisi-be</i>
DUVLE	<i>pæxi</i>	<i>vire</i>	<i>æbræ</i>	<i>soyo^-ε</i>
DOUTAI	<i>wi^</i>	<i>depei^</i>	<i>ebre</i>	<i>keiki</i>
WARITAI	<i>wi^</i>	<i>deφei^</i>	<i>bai</i>	<i>keiki</i>
KAI	<i>wi^</i>	<i>ako^udeφri</i>	<i>abai^i-wa</i>	<i>keisutigi</i>
BIRITAI	<i>bi^</i>	<i>arahi^</i>	<i>auhi^e</i>	<i>eyajaka</i>
OBOKUITAI	<i>kwig⁷</i>	<i>arehri⁷</i>	<i>asahrid⁷</i>	<i>kore-kekaig⁷</i>
ERITAI	<i>wi</i>	<i>hieio^ukwe</i>	<i>esare</i>	<i>sosokoi</i>
SIKARITAI	<i>wid⁷</i>	<i>dopia</i>	<i>ak⁷gig⁷jua</i>	<i>k⁷gig⁷</i>
KAURE	<i>tesi</i>	<i>dija⁷</i>	<i>seple</i>	<i>kau⁷xja⁷</i>
BAUZI	<i>ke</i>	<i>asimde</i>	<i>gehabat</i>	<i>væmtea</i>
BERIK	<i>tib</i>	<i>daren-dar-na</i>	<i>alende-na</i>	<i>dænfe-na</i>
ORYA	<i>kaso</i>	<i>dohon-na</i>	<i>bwæbwep-na</i>	<i>ahaen</i>
DANI	<i>yugum</i>	<i>aninggin</i>	<i>eraabim</i>	<i>ambit</i>
DEMISA	<i>edu</i>	<i>ase^umi</i>	---	<i>natudüe</i>

Language	45. two	46. three	47. four	48. five
SAPONI	<i>kɔsɛrɛ</i>	<i>niriwo</i>	<i>nawarɛ</i>	<i>nawarɛ</i>
RASAWA	<i>wɔri</i>	<i>driβɔ</i>	<i>tuβaβɔ</i>	<i>naβaβɔ</i>
AWERA	<i>kuruko</i>	<i>nigri</i>	<i>na:rua</i>	<i>neri:pu</i>
WEIRATE	<i>φiro</i>	<i>φirorayɛ</i>	<i>φiroφiro</i>	<i>adaφadekwade</i>
DEIRATE	<i>φiro</i>	<i>fariri</i>	<i>dai</i>	<i>dai</i>
TAUSE	<i>φiro</i>	<i>φiroedaxe</i>	<i>φiroφiro</i>	<i>dai^i</i>
SEHUDATE	<i>bure</i>	<i>üru</i>	<i>nahai</i>	<i>nahai</i>
FAYU	<i>bure</i>	<i>uru</i>	---	<i>atahara</i>
FAIA	<i>ɔro-we</i>	<i>kurake-βe</i>	<i>kurake-βe</i>	<i>kurake-βe</i>
KIRIKIRI	<i>ɔro-we</i>	<i>dluo-we</i>	<i>φaru</i>	<i>φaru</i>
EDOPI	<i>borə-beyi</i>	<i>hɔi-beyi</i>	<i>hɔi-beyi</i>	<i>ahuru-beyi</i>
IAU	<i>bɔ</i>	<i>bau</i>	<i>bɔ-hai bɔ-hai</i>	<i>oi aisitoede</i>
DUVLE	<i>tɛ̃ɛ</i>	<i>zuo</i>	<i>tɛ̃ɛ ba tɛ̃ɛ</i> <i>bɪa</i>	<i>zuo bɪa tɛ̃ɛ</i> <i>bɪa</i>
DOUTAI	<i>tiba</i>	<i>tibaka keika</i>	<i>kabresa tiba</i> <i>kabresa tiba</i>	<i>gai^ sagari</i>
WARITAI	<i>bɪa</i>	<i>bɪaka keika</i>	<i>bɪaka bɪaka</i>	<i>ei^dakei</i> <i>φrewi^ti</i>
KAI	<i>betia</i>	<i>betia keisoka</i>	<i>kabaka betia</i> <i>kabaka betia</i>	<i>siri^ko</i>
BIRITAI	<i>tia</i>	<i>sidi^</i>	<i>atoti^ai</i>	<i>atoti^ai</i>
OBOKUITAI	<i>tio</i>	<i>sɪ</i>	<i>tiokatioka</i>	
ERITAI	<i>tihai</i>	<i>sirihai</i>	<i>tihaika tihaika</i>	4+1
SIKARITAI	<i>betia</i>	<i>betiakaked</i>	<i>betiakabetiaka</i>	4+1
KAURE	<i>trapli</i>	<i>traplisutu</i>	<i>trapli traplit</i>	2+3
BAUZI	<i>behæsu</i>	<i>lætela</i>	<i>ahia</i>	<i>auohole</i>
BERIK	<i>nawra</i>	<i>naruningna</i>	<i>naunaura</i>	<i>tafna guri</i>
ORYA	<i>dandan</i>	<i>danahan</i>	<i>dannër dannër</i>	<i>ahaeretahatap</i>
DANI	<i>mbere</i>	<i>kenagan</i>	<i>i'mbere mbere</i>	<i>linggitogon</i>
DEMISA	<i>utahu</i>	<i>mudauta mudua</i>	<i>natə ra</i>	<i>natə ra</i>

Language	49. many	50. few	51. all	52. land
SAPONI	<i>peifəye</i>	<i>niteiyola</i>	<i>fətiɾe</i>	<i>kɪɾe</i>
RASAWA	<i>püye</i>	<i>agubri</i>	<i>ɔβiye</i>	<i>gi</i>
AWERA	<i>ɔβe:dida</i>	<i>perekɔβu</i>	<i>owo:βuβæ</i>	<i>peri</i>
WEIRATE	<i>aka-ɸare-kware</i>	---	<i>kai^i</i>	<i>ka</i>
DEIRATE	<i>fare</i>	<i>iraka</i>	<i>dai</i>	<i>ka</i>
TAUSE	<i>dai^i</i>	---	<i>ɸara</i>	<i>ka</i>
SEHUDATE	<i>nahai</i>	---	---	<i>uta</i>
FAYU	<i>guti</i>	---	---	<i>ata/ura</i>
FAIA	<i>kurakeβe</i>	---	---	<i>hna</i>
KIRIKIRI	<i>ɸaru</i>	<i>sokole</i>	<i>ɔria</i>	<i>ɸla</i>
EDOPI	<i>ɔdiabei</i>	<i>hiabiai</i>	<i>ahurubeyi</i>	<i>kua</i>
IAU	<i>kadi</i>	<i>kodu</i>	<i>ɸahu</i>	<i>a</i>
DUVLE	<i>bæⁱrovɾe</i>	<i>oby^uka</i>	<i>fyare</i>	<i>pɪa</i>
DOUTAI	<i>sigiri^ori</i>	---	<i>bariori</i>	<i>pɾa</i>
WARITAI	<i>diapori</i>	---	<i>ɸɾeori</i>	<i>sɛri</i>
KAI	<i>siri^ko</i>	---	<i>ahare</i>	<i>i^je</i>
BIRITAI	<i>di^aya</i>	<i>adice</i>	<i>sudi^aya</i>	<i>ha</i>
OBOKUITAI	<i>hebeia</i>	<i>oso-kode</i>	<i>hire-akweig^ʔja</i>	<i>hra/ɸra</i>
ERITAI	---	---	<i>hirokweja</i>	<i>yepra</i>
SIKARITAI	---	---	<i>awedsa</i>	<i>ig^ʔje</i>
KAURE	<i>kɔsü</i>	<i>tauahɔlein</i>	<i>kɔsü</i>	<i>i^ʔ</i>
BAUZI	<i>duat</i>	<i>kɔet</i>	<i>ahebu</i>	<i>bake</i>
BERIK	---	---	<i>seæften</i>	<i>o</i>
ORYA	<i>beya-na</i>	<i>dan en</i>	<i>kĩtak/tĩngan</i>	<i>kama</i>
DANI	<i>apit</i>	<i>mbereluk</i>	<i>tigitongon</i>	<i>nggween</i>
DEMISA	<i>damadəra</i>	---	---	<i>bæi</i>

Language	53. dust	54. path	55. narrow	56. wide
SAPONI	<i>iore</i>	<i>makirawo</i>	<i>puti-re</i>	<i>warafuwɔ</i>
RASAWA	<i>piro</i>	<i>we</i>	<i>orokaβi</i>	<i>uruφuyo</i>
AWERA	---	<i>riβi</i>	<i>kakore</i>	<i>wara</i>
WEIRATE	---	<i>kwakla</i>	<i>kodoφaka</i>	<i>weφe</i>
DEIRATE	<i>ka</i>	<i>kwaka</i>	---	---
TAUSE	---	<i>kari</i>	<i>kaβare</i>	<i>kwidare</i>
SEHUDATE	---	<i>ari</i>	<i>ja</i>	<i>kuti</i>
FAYU	---	<i>ohri/eha</i>	---	<i>kuehi</i>
FAIA	---	<i>kwari</i>	<i>koko-βei</i>	<i>hejβeiyo</i>
KIRIKIRI	---	<i>kwari</i>	---	---
EDOPI	<i>sua</i>	<i>kara</i>	<i>hau-wei</i>	<i>tetoradi</i>
IAU	<i>a sibi</i>	<i>be</i>	<i>φa-be</i>	<i>tau-hi-be</i>
DUVLE	---	<i>ioyɔ'a</i>	<i>fou kaa</i>	<i>orifua</i>
DOUTAI	---	<i>kwai gra</i>	<i>sebare</i>	<i>sa</i>
WARITAI	---	<i>kwai dari</i>	<i>sebere</i>	<i>darisa</i>
KAI	---	<i>bisawei^</i>	<i>abiφo</i>	<i>tibipi</i>
BIRITAI	<i>duatu^</i>	<i>kai</i>	<i>hau^</i>	<i>ecoke</i>
OBOKUITAI	<i>tibi</i>	<i>kuei</i>	---	---
ERITAI	---	<i>kweyokwei</i>	<i>etihaki</i>	<i>sasoku</i>
SIKARITAI	---	<i>kwadak</i>	<i>atigjaahahu</i>	<i>sgapia</i>
KAURE	<i>pongputa</i>	<i>syali</i>	<i>koketə</i>	<i>kahuitehe</i>
BAUZI	<i>bak fau</i>	<i>zie</i>	<i>ba koeda</i>	<i>ba duat</i>
BERIK	---	<i>nel</i>	<i>olosu</i>	<i>fenfene</i>
ORYA	<i>son</i>	<i>ora</i>	<i>klakat-na</i>	<i>dakdak-na</i>
DANI	<i>liirubu</i>	<i>tu</i>	<i>yagapit</i>	<i>nggwok</i>
DEMISA	---	<i>do</i>	<i>bidado</i>	---

Language	57. mountain	58. cloud	59. rain	60. sky
SAPONI	<i>irire</i>	<i>towaio</i>	<i>ko'e</i>	<i>iware</i>
RASAWA	<i>iri</i>	<i>ka:yo</i>	<i>utuyo</i>	<i>dußuru</i>
AWERA	<i>poeræ</i>	<i>βiarowau</i>	<i>kwei</i>	<i>moroko:βu</i>
WEIRATE	<i>kaji</i>	<i>kweja?</i>	<i>kulia</i>	---
DEIRATE	<i>ahwa</i>	<i>taru-kwa</i>	<i>kwiaa</i>	---
TAUSE	<i>kati</i>	<i>kwe</i>	<i>kria</i>	<i>kri</i>
SEHUDATE	<i>iri</i>	<i>tetai</i>	<i>i</i>	<i>iasa</i>
FAYU	<i>iri</i>	<i>tetai</i>	<i>i</i>	---
FAIA	<i>kærie</i>	---	<i>wi</i>	<i>da:βi</i>
KIRIKIRI	<i>kærie</i>	<i>φira</i>	<i>wi</i>	<i>na-βonei</i>
EDOPI	<i>dala</i>	<i>da-tai</i>	<i>bi</i>	<i>da:</i>
IAU	<i>da</i>	<i>la-bi</i>	<i>bi^</i>	<i>la</i>
DUVLE	<i>æbæri</i>	<i>kasi</i>	<i>fæ'ia</i>	<i>tarəyo'a</i>
DOUTAI	<i>beri</i>	<i>keiso</i>	<i>wari beriji-wa</i>	<i>takia</i>
WARITAI	<i>i^doku</i>	<i>keiso</i>	<i>wari sei-wa</i>	<i>takia</i>
KAI	<i>i^sei^</i>	<i>kaiso</i>	<i>waro sei-wa</i>	<i>takai</i>
BIRITAI	<i>ahedi</i>	<i>ai^</i>	<i>i</i>	<i>ai^</i>
OBOKUITAI	<i>iseig'</i>	<i>korub'</i>	<i>sebeig'</i>	<i>tebarig'</i>
ERITAI	<i>kebi/iseid</i>	<i>koru</i>	<i>sebei</i>	<i>takia</i>
SIKARITAI	<i>awedta</i>	<i>taki kwakid</i>	<i>wa priwa</i>	<i>taki</i>
KAURE	<i>ehui</i>	<i>kete</i>	<i>dei</i>	<i>lebü</i>
BAUZI	<i>bitæha</i>	<i>ulo</i>	<i>aba</i>	<i>asum</i>
BERIK	<i>tæren</i>	<i>anis</i>	<i>aro</i>	<i>winis</i>
ORYA	<i>kwatap</i>	<i>but/ogom</i>	<i>o</i>	<i>ngli</i>
DANI	<i>puurom</i>	<i>ndugwi</i>	<i>mayu</i>	<i>mbogut</i>
DEMISA	<i>nohuda</i>	---	<i>aboi</i>	<i>asunawa</i>

Language	61. fog	62. wind	63. hot	64. cold
SAPONI	<i>jakayawo</i>	<i>iware</i> (sky?)	<i>ku-reiɛ</i>	<i>kipera-rei</i>
RASAWA	---	<i>bura:yo</i>	<i>waɸi-ye</i>	<i>tu:βi-ye</i>
AWERA	<i>oroβo:βu</i>	<i>iβa:βo</i>	<i>ka:-ræ</i>	<i>nou-βe</i>
WEIRATE	<i>kuriaye</i>	<i>aurikawa</i>	<i>ɸaira-de</i>	<i>ariaro</i>
DEIRATE	---	<i>akwi</i>	<i>danu</i>	<i>ajanu</i>
TAUSE	---	<i>auywəri</i>	<i>erare</i>	<i>araxore</i>
SEHUDATE	---	<i>ihauda</i>	---	<i>ɔrio</i>
FAYU	<i>ɸitiesa</i>	<i>ehasa</i>	<i>kwera</i>	<i>ɔrio</i>
FAIA	---	<i>kwɔβi</i>	<i>ɛyɛkwao</i>	<i>edekemao</i>
KIRIKIRI	---	<i>kwɔβi</i>	<i>kwe-towe</i>	<i>ɸuya</i>
EDOPI	<i>oibegi?</i>	<i>ha:u</i>	<i>didai</i>	<i>tawai</i>
IAU	<i>lataɛ</i>	<i>ɸo</i>	<i>di-be</i>	<i>tau-be</i>
DUVLE	---	<i>kisari</i>	<i>bokari</i>	<i>oriei</i>
DOUTAI	<i>keiso</i>	<i>ki^sari/wrebi</i>	<i>kwre-pru</i>	<i>gakwei</i>
WARITAI	<i>keiso</i>	<i>wereki^</i>	<i>kweki paga</i>	<i>dekei</i>
KAI	<i>kaiso</i>	<i>i^jahari</i>	<i>soɸru</i>	<i>akakwei</i>
BIRITAI	<i>autau?</i>	<i>asa</i>	<i>akedi</i>	<i>edu^dua</i>
OBOKUITAI	<i>korub^haid-ko kwai</i>	<i>asa-kweig^</i>	<i>asa-kwri</i>	<i>akauho</i>
ERITAI	<i>kuoriku</i>	<i>ɛsa</i>	<i>ɛsari</i>	<i>ahau</i>
SIKARITAI	<i>towodko</i>	<i>igje aud</i>	<i>kuraka</i>	<i>elewed</i>
KAURE	<i>hwagida</i>	<i>aprin</i>	<i>saplik</i>	<i>kepuiq</i>
BAUZI	<i>ulo</i>	<i>nutabe</i>	<i>gaimɛot</i>	<i>nutabet</i>
BERIK	<i>gar</i>	<i>nindai</i>	<i>kakala</i>	<i>wisime</i>
ORYA	<i>ogom</i>	<i>asese</i>	<i>salsal-a</i>	<i>sasa-na</i>
DANI	<i>o apit</i>	<i>wiya</i>	<i>aganggan</i>	<i>togwi</i>
DEMISA	---	<i>bura</i>	<i>gaiheha</i>	<i>nutæha</i>

Language	65. thunder	66. lightning	67. staff	68. straight
SAPONI	<i>towaioɾe</i>	<i>ta^uɾore</i>	<i>kuraⁱe</i>	<i>mure</i>
RASAWA	<i>diwei</i>	<i>pereperekaβo</i>	<i>kura</i>	<i>pie: no</i>
AWERA	<i>pekeri:koβo</i>	<i>pæræko</i>	<i>waka</i>	<i>məβi:æβi</i>
WEIRATE	<i>kluario</i>	---	<i>kuru</i>	---
DEIRATE	<i>saka</i>	---	<i>u</i>	<i>kwidaka</i>
TAUSE	<i>kria kruwaro</i>	<i>ayara zudo</i>	---	<i>φetide</i>
SEHUDATE	<i>nata</i>	---	<i>deⁱo</i>	---
FAYU	<i>cha</i>	---	---	---
FAIA	<i>na-klua</i>	---	<i>hia</i>	---
KIRIKIRI	<i>na-dia</i>	<i>na-aba-sia</i>	<i>φia</i>	<i>touia</i>
EDOPI	<i>dai-dai</i>	<i>la-uda-huda</i>	---	<i>todə-beyi</i>
IAU	<i>la-e-a</i>	<i>la-kaba</i>	<i>u</i>	<i>φo-tauⁱ-be</i>
DUVLE	<i>fæⁱa baruoro</i>	<i>tai zaⁱuoro</i>	---	<i>aⁱ kara vrɛ</i>
DOUTAI	<i>waru sudu-wa/</i>	<i>deribi[^]i-wa</i>	<i>ku[^]da</i>	<i>tobuse</i>
WARITAI	<i>wari sudu-wa</i>	<i>frukotegiri-wa</i>	<i>kire</i>	<i>tute</i>
KAI	<i>waro ku[^]ju-wa</i>	<i>brarukru[^]iwa</i>	<i>ku[^]su</i>	<i>tibipi</i>
BIRITAI	<i>di[^]ade</i>	<i>turugəga</i>	<i>teau[^]</i>	<i>ikiaye</i>
OBOKUITAI	<i>arig^ʔ-sudokwa</i>	<i>subreri-kwikua</i>	<i>kud^ʔ</i>	<i>ibikure</i>
ERITAI	<i>sia uroku</i>	<i>breya kuriku</i>	<i>ku otukwa</i>	<i>ibihweikure</i>
SIKARITAI	<i>kug^ʔjewa</i>	<i>brakru-wa</i>	<i>ba ig^ʔkopu</i>	<i>ug^ʔkwakwe</i>
KAURE	<i>dəgi</i>	<i>nalainhoi</i>	<i>pəkəlu</i>	<i>kani</i>
BAUZI	<i>asum meofa</i>	<i>asum boz vele</i>	<i>odoamsə</i>	<i>vamdesu</i>
BERIK	<i>iris</i>	<i>iris naf</i>	<i>dum ti</i>	<i>nornora</i>
ORYA	<i>ngli-glung</i>	<i>ngliang</i>	<i>dute</i>	<i>damdam-na</i>
DANI	<i>onggurubu</i>	<i>o yabok</i>	<i>kuwa</i>	<i>mot-mot</i>
DEMISA	<i>itse betəra</i>	<i>ije emera</i>	<i>utəto odesia</i>	<i>donatana</i>

Language	69. thick	70. thin	71. sharp	72. dull
SAPONI	<i>iwe-fe-je</i>	<i>εja-fe-je</i>	<i>ε-reⁱ</i>	<i>pa^u-fe-re</i>
RASAWA	<i>ijβiβu</i>	<i>arianu</i>	<i>e:nu</i>	<i>baof<i>ɸ</i>i</i>
AWERA	<i>ro:dida</i>	<i>piræβi</i>	<i>koβi:ri</i>	<i>puβe</i>
WEIRATE	---	---	---	---
DEIRATE	<i>kwæφe</i> (big)	<i>kaφe</i> (small)	<i>aja</i>	---
TAUSE	---	---	<i>atia</i>	<i>sure</i>
SEHUDATE	---	---	<i>kwəhona</i>	---
FAYU	---	<i>baha</i>	<i>ohra</i>	<i>ohü</i>
FAIA	---	---	---	---
KIRIKIRI	---	---	---	<i>mayu-we</i>
EDOPI	<i>ahauðe-beyi</i>	<i>ora-beyi</i>	<i>odawa-beyi</i>	<i>ma-wei</i>
IAU	<i>mabə-be</i>	<i>φiese-be</i>	<i>ma-be</i>	<i>bə-be</i>
DUVLE	---	---	<i>ibre</i>	<i>o^uku</i>
DOUTAI	<i>teipo</i>	<i>sabare</i>	<i>pru</i>	<i>ouku[^]</i>
WARITAI	<i>teiφo</i>	<i>səbere</i>	<i>φga</i>	<i>ouku[^]</i>
KAI	<i>ataipo</i>	<i>atibiso</i>	<i>φru</i>	<i>abitu</i>
BIRITAI	<i>hu[^]</i>	<i>hau</i>	<i>huaye</i>	<i>ü</i>
OBOKUITAI	<i>abig⁷ho</i>	<i>sebeso</i>	<i>huru</i>	<i>abritu</i>
ERITAI	<i>ehihetre</i>	<i>sebaki</i>	<i>huru</i>	<i>ehride</i>
SIKARITAI	<i>ahota</i> <i>kig⁷jokwako</i>	<i>sebekio-kwe</i>	<i>hurie-kwe</i>	<i>apuⁱd</i>
KAURE	<i>kapi</i>	<i>ləmbe</i>	<i>kahia</i>	<i>hotoi</i>
BAUZI	<i>tamzəbut</i>	<i>bibat</i>	<i>eimeot</i>	<i>zait</i>
BERIK	<i>irfi</i>	<i>furfera</i>	<i>binbini</i>	<i>kubana</i>
ORYA	<i>minining-ni</i>	<i>bəbek-na</i>	<i>benbenna</i>	<i>toptopna</i>
DANI	<i>nggwok</i>	<i>pe⁷ler</i>	<i>eerakambik</i>	<i>errak lek</i>
DEMISA	---	---	---	---

Language	73. sun	74. midday	75. night	76. moon
SAPONI	<i>a^urɔrɛⁱ</i>	<i>ariyaβo</i>	<i>jakayaβɛ</i>	<i>marirɛ</i>
RASAWA	<i>kuri</i>	<i>i:xa</i>	<i>kigaxaβo</i>	<i>bariya</i>
AWERA	<i>tigyαβo</i>	<i>narubwɔræ</i>	<i>perukwa:βæ</i>	<i>ri:βo</i>
WEIRATE	<i>sɔ</i>	---	<i>oφre</i>	<i>sɔ</i>
DEIRATE	<i>sɔ</i>	<i>sakaseno</i>	<i>oφanu</i>	<i>sɔ</i>
TAUSE	<i>so</i>	<i>ure</i>	<i>oβra</i>	<i>so</i>
SEHUDATE	<i>kwai</i>	---	<i>kahayo</i>	<i>kwai</i>
FAYU	<i>kuai</i>	---	<i>kahu</i>	<i>aua</i>
FAIA	<i>tɔ</i>	---	<i>na-kobao</i>	<i>tɔ</i>
KIRIKIRI	<i>tɔ</i>	---	<i>kla-yo</i>	<i>tɔ</i>
EDOPI	<i>su</i>	<i>baladeli</i>	<i>da-hala-beyi</i>	<i>su</i>
IAU	<i>bai[^]</i>	<i>otu-be</i>	<i>da-haide</i>	<i>bai[^] daki</i>
DUVLE	<i>væⁱr</i>	<i>væⁱrɪ deⁱse</i>	<i>iaɣakori</i>	<i>vrisa</i>
DOUTAI	<i>koru</i>	<i>korusokio</i>	<i>su[^]jaki[^]</i>	<i>saro</i>
WARITAI	<i>kiy</i>	<i>kitoko</i>	<i>wiφogo</i>	<i>so</i>
KAI	<i>dori</i>	<i>dorusoko</i>	<i>i[^]jeki[^]jewa</i>	<i>saro</i>
BIRITAI	<i>so</i>	<i>soto</i>	<i>sui</i>	<i>so</i>
OBOKUITAI	<i>so</i>	<i>sotoko</i>	<i>sukwig⁷</i>	<i>so</i>
ERITAI	<i>so</i>	<i>sotro</i>	<i>yaki</i>	<i>so</i>
SIKARITAI	<i>seja</i>	<i>sejato</i>	<i>ig⁷jekig⁷</i>	<i>awed⁷ta</i>
KAURE	<i>hari</i>	<i>pei</i>	<i>kling</i>	<i>poka</i>
BAUZI	<i>ala</i>	<i>ala tomale</i>	<i>disi</i>	<i>ala</i>
BERIK	<i>gwer</i>	<i>gwerem</i>	<i>gwinem</i>	<i>muar</i>
ORYA	<i>yakla</i>	<i>gwæram</i>	<i>kam</i>	<i>ben</i>
DANI	<i>oonegen</i>	<i>liingge</i>	<i>o yumak</i>	<i>tut</i>
DEMISA	<i>arɔ</i>	<i>bægetə</i>	<i>jetohaida</i>	<i>arɔ</i>

Language	77. star	78. banana	79. garden	80. grass
SAPONI	<i>tarure</i>	<i>pɔʔe</i>	<i>ijɔɛ</i>	<i>esɔɛ</i>
RASAWA	<i>korɔβia</i>	<i>kwɔβe</i>	<i>iyo/wiyo</i>	<i>asika:φeβu</i>
AWERA	<i>teβia</i>	<i>kiri</i>	<i>kwo</i>	<i>u:</i>
WEIRATE	<i>taʊ</i>	<i>kli</i>	<i>u</i>	<i>kəriaso</i>
DEIRATE	<i>taʊ</i>	<i>kiφiro</i>	<i>φisa</i>	<i>ukwe</i>
TAUSE	<i>tau</i>	<i>kri</i>	<i>ka truaro</i>	<i>sayaφa</i>
SEHUDATE	---	<i>mboi</i>	---	<i>saya</i>
FAYU	<i>tehayai</i>	<i>boi</i>	---	<i>sa</i>
FAIA	<i>hora</i>	<i>kli</i>	---	<i>ho</i>
KIRIKIRI	<i>φɔra</i>	<i>kli/kliboi</i>	---	<i>φo</i>
EDOPI	<i>tatala</i>	<i>kiri</i>	<i>uki</i>	<i>ho</i>
IAU	<i>tata</i>	<i>ɔɛ</i>	<i>u ae</i>	<i>φui</i>
DUVLE	<i>wisu</i>	<i>kri</i>	<i>kida</i>	<i>zikara</i>
DOUTAI	<i>wi^su^</i>	<i>kri^</i>	<i>ku^pu^ari</i>	<i>du^</i>
WARITAI	<i>wite</i>	<i>kri^</i>	<i>ku^b^guti</i>	<i>ru^</i>
KAI	<i>wisu^</i>	<i>kɔʊ</i>	<i>ku^puyari</i>	<i>buru</i>
BIRITAI	<i>doiso</i>	<i>au</i>	<i>aukuade</i>	<i>sarudu</i>
OBOKUITAI	<i>takahu</i>	<i>koubʔ</i>	<i>eigʔsehubʔ</i>	<i>serurubʔ</i>
ERITAI	<i>takahu</i>	<i>kou</i>	<i>yete</i>	<i>buru</i>
SIKARITAI	<i>kigpog</i>	<i>kid</i>	<i>kughugja</i>	<i>bid</i>
KAURE	<i>matupaple</i>	<i>təpe</i>	<i>təmbli</i>	<i>plouwang</i>
BAUZI	<i>fako</i>	<i>fem</i>	<i>utoho</i>	<i>sibe</i>
BERIK	<i>mato</i>	<i>gwil</i>	<i>makana</i>	<i>kaktar</i>
ORYA	<i>keis</i>	<i>gwaha</i>	<i>nga</i>	<i>so/blas</i>
DANI	<i>laluguragan</i>	<i>lawi</i>	<i>yabu</i>	<i>mboori</i>
DEMISA	---	<i>mude</i>	<i>utesedera</i>	<i>sibe</i>

Language	81. dry	82. mow	83. tree/wood	84. split
SAPONI	<i>ɛwa^hkiwə</i>	<i>urara^u</i>	<i>kure</i>	<i>pɛyɛyawə</i>
RASAWA	<i>de:nu</i>	<i>keya</i>	<i>ukui</i>	<i>pekeka</i>
AWERA	<i>ɔ:kə</i>	<i>kieyo</i>	<i>oβi</i>	<i>pəyeyi</i>
WEIRATE	---	<i>su</i>	---	<i>wodo</i>
DEIRATE	---	<i>kate</i>	<i>utakwo</i>	<i>kiado</i>
TAUSE	<i>φaxaru</i>	<i>tari</i>	<i>u</i>	---
SEHUDATE	---	<i>uro</i>	<i>u</i>	<i>tayo</i>
FAYU	---	---	<i>u</i>	---
FAIA	---	---	---	<i>nikli</i>
KIRIKIRI	---	<i>φlia</i>	<i>du</i>	<i>kuda/φikla</i>
EDOPI	<i>sueye</i>	<i>hərai</i>	<i>u</i>	<i>dukari</i>
IAU	<i>si-bɛ</i>	<i>hoe</i>	<i>u</i>	<i>duki</i>
DUVLE	<i>so vareso</i>	<i>soⁱ</i>	<i>ura</i>	<i>zaⁱ</i>
DOUTAI	<i>so</i>	---	<i>ku[^]</i>	---
WARITAI	<i>koso</i>	---	<i>ku[^]</i>	---
KAI	<i>sobeikoru</i>	---	<i>ku[^]</i>	---
BIRITAI	<i>soi</i>	<i>kaidaka</i>	<i>u</i>	<i>ɛ:daka</i>
OBOKUITAI	<i>soig⁷</i>	<i>traig⁷-kua</i>	<i>kub⁷</i>	<i>kri-do-kwa</i>
ERITAI	<i>ohosoruku</i>	---	<i>ku</i>	---
SIKARITAI	---	---	<i>kug⁷</i>	<i>pidowa</i>
KAURE	<i>pəspait</i>	<i>kalitusla</i>	<i>tei</i>	<i>kalapula</i>
BAUZI	<i>dehat</i>	<i>sibɛ vie</i>	<i>uto</i>	<i>fahe</i>
BERIK	<i>stera</i>	---	<i>ti</i>	---
ORYA	<i>sasa-na</i>	<i>bung gun</i>	<i>te</i>	<i>hlang son</i>
DANI	<i>wolonak</i>	<i>eeri[?]ngga mbanak</i>	<i>eyo</i>	<i>nggaganak</i>
DEMISA	---	---	---	<i>ihyaire</i>

Language	86. branch	87. leaf	88. thorn	89. fruit
SAPONI	<i>kupe^urakose</i>	<i>uraⁱore</i>	<i>pore</i>	<i>wēē</i>
RASAWA	<i>tai</i>	<i>kuru/ura</i>	<i>po</i>	<i>wi</i>
AWERA	<i>ore:ya</i>	<i>duyeri</i>	<i>poræ</i>	<i>aβa:ræ</i>
WEIRATE	<i>ukaⁱφidau</i>	<i>asæde</i>	<i>kre</i>	<i>ukaba</i>
DEIRATE	<i>uwaφaka</i>	<i>awase</i>	<i>kwe</i>	<i>ukama</i>
TAUSE	---	<i>azære</i>	<i>kre</i>	<i>arokwa?</i>
SEHUDATE	<i>təβo</i>	<i>sa</i>	<i>atai</i>	---
FAYU	---	<i>sa</i>	<i>kuē</i>	---
FAIA	---	<i>klu</i>	<i>kwe</i>	<i>ta</i>
KIRIKIRI	<i>ki[^]</i>	<i>sa/klu</i>	<i>kwe</i>	<i>ta</i>
EDOPI	<i>u-kou</i>	<i>sa</i>	<i>bē</i>	<i>tai</i>
IAU	<i>i</i>	<i>osu</i>	<i>bē</i>	<i>taⁱ</i>
DUVLE	<i>dobæri</i>	<i>obi/tabi</i>	<i>fræ</i>	<i>æræ</i>
DOUTAI	---	<i>kurwækəri</i>	<i>kei[^]</i>	<i>ebi[^]</i>
WARITAI	---	<i>toruduko</i>	<i>kwre</i>	<i>ebi[^]</i>
KAI	---	<i>kugaharu</i>	<i>kwre</i>	<i>ati[^]</i>
BIRITAI	<i>adi-hai</i>	<i>adu</i>	<i>ai[^]</i>	<i>toide</i>
OBOKUITAI	<i>kub^ʾ</i>	<i>akrud^ʾ</i>	<i>kwrei</i>	<i>ahorub^ʾ</i>
ERITAI	---	<i>okru</i>	<i>kure</i>	<i>ohori</i>
SIKARITAI	---	<i>asgad</i>	<i>kure</i>	<i>atig</i>
KAURE	<i>we</i>	<i>bē</i>	<i>tuwe</i>	<i>kople</i>
BAUZI	<i>aaso</i>	<i>et</i>	<i>ali</i>	<i>oo</i>
BERIK	---	<i>tiala</i>	<i>ut</i>	---
ORYA	<i>hli</i>	<i>teala</i>	<i>ngi</i>	<i>dan/ei</i>
DANI	<i>mi^ʔndik</i>	<i>ngga</i>	<i>alok</i>	<i>anggen</i>
DEMISA	<i>utioφasudesuda</i>	<i>nata</i>	<i>ari</i>	<i>utua</i>

Language	90. seed	91. rotten	92. smelly	93. forest
SAPONI	<i>weje</i>	<i>wu-fe-je</i>	<i>we-fe-je</i>	<i>kiwi-fe-je</i>
RASAWA	<i>wizo</i>	<i>du-βi</i>	<i>uβijβa</i>	<i>ba</i>
AWERA	<i>we:ɾo</i>	<i>kari-βe</i>	<i>uβyo</i>	<i>pesia</i>
WEIRATE	---	<i>kama</i>	<i>ka^uwa</i>	<i>saka</i>
DEIRATE	<i>u-kama</i>	<i>kama</i>	---	<i>sakakuko</i>
TAUSE	<i>kaba</i>	---	<i>aφru</i>	<i>ti</i>
SEHUDATE	---	<i>ehoreka</i>	---	<i>φio</i>
FAYU	---	<i>kauo</i>	<i>kauo</i>	<i>isa</i>
FAIA	<i>kwa</i>	<i>kau</i>	<i>kau</i>	---
KIRIKIRI	<i>kwa</i>	<i>kau[^]</i>	<i>kau[^]</i>	<i>boi</i>
EDOPI	<i>hele</i>	<i>tuhe</i>	<i>tu</i>	<i>pe</i>
IAU	<i>φæ</i>	<i>be</i>	<i>su</i>	<i>eho</i>
DUVLE	<i>æɾæ</i>	<i>tuyɪ</i>	<i>tuyɪ gore</i>	<i>pia veⁱ</i>
DOUTAI	<i>ebi[^]</i>	---	---	<i>kuyesi[^]</i>
WARITAI	<i>ebi[^]</i>	---	---	<i>o</i>
KAI	<i>ati[^]</i>	---	---	<i>ku[^]aso</i>
BIRITAI	<i>ahido</i>	<i>kai</i>	<i>aihai</i>	<i>utu[^]</i>
OBOKUITAI	<i>atig⁷</i>	<i>kuεig⁷</i>	<i>asa</i>	<i>kau</i>
ERITAI	<i>eti</i>	---	---	<i>kawetei</i>
SIKARITAI	<i>atig</i>	---	---	<i>igsuod</i>
KAURE	<i>kwe</i>	<i>tokoni</i>	<i>bəlua</i>	<i>hapaipa</i>
BAUZI	<i>neb</i>	<i>koaile</i>	<i>ahanafait</i>	<i>nahubak</i>
BERIK	<i>ti-tantan</i>	---	---	<i>onap</i>
ORYA	<i>te-tandan</i>	<i>batren</i>	<i>irase karek</i>	<i>eik</i>
DANI	<i>anggan</i>	<i>pili</i>	<i>obari</i>	<i>eyo ngga me</i>
DEMISA	---	<i>utwatseha</i>	---	---

Language	94. rope	95. tie	96. white	97. black
SAPONI	<i>seferare</i>	<i>piyawo</i>	<i>fuma-re</i>	<i>meɣe-re</i>
RASAWA	<i>kya</i>	<i>kiβika</i>	<i>koβu-no</i>	<i>beke-no</i>
AWERA	<i>kyæ</i>	<i>kægi</i>	<i>koβe-βi</i>	<i>kwara-βi</i>
WEIRATE	<i>tɔ</i>	<i>bi je</i>	<i>φu</i>	<i>kaka</i>
DEIRATE	<i>tɔ</i>	<i>bidu</i>	<i>arakwudi</i>	<i>kaka</i>
TAUSE	<i>to</i>	<i>to bido</i>	<i>araxo</i>	<i>kaka</i>
SEHUDATE	<i>tɔ</i>	<i>deɣɔ</i>	<i>kwɔhɔ</i>	<i>kotai</i>
FAYU	<i>uhi to</i>	<i>reio</i>	<i>koɔhɔ</i>	---
FAIA	<i>kaea</i>	<i>mudao</i>	---	---
KIRIKIRI	<i>kabia</i>	<i>φua</i>	<i>kura-we</i>	<i>ko-we</i>
EDOPI	<i>owa</i>	<i>kali</i>	<i>hatebana</i>	<i>hele</i>
IAU	<i>φo</i>	<i>kae</i>	<i>be-be</i>	<i>φædæ-be</i>
DUVLE	<i>kabo</i>	---	<i>kwrei</i>	<i>gobe</i>
DOUTAI	<i>adi</i>	<i>pouru-wa</i>	<i>kwrei</i>	<i>ki^</i>
WARITAI	<i>kai</i>	<i>poudi-wa</i>	<i>tæbe</i>	<i>ki^</i>
KAI	<i>kai</i>	<i>i^ja-wa</i>	<i>kwei^e</i>	<i>ki^</i>
BIRITAI	<i>kahi</i>	<i>i^a-ka</i>	<i>tue</i>	<i>i^</i>
OBOKUITAI	<i>kebia</i>	<i>ig^je-kwa</i>	<i>kuɛi</i>	<i>kig^</i>
ERITAI	<i>hi</i>	<i>i^a-ku</i>	<i>kwei</i>	<i>kikare</i>
SIKARITAI	<i>deje</i>	<i>ig^jua</i>	<i>kwakid^</i>	<i>kig^je</i>
KAURE	<i>wi</i>	<i>kakle</i>	<i>waku</i>	<i>sabi</i>
BAUZI	<i>lo</i>	<i>gia</i>	<i>fauhat</i>	<i>gihot</i>
BERIK	<i>næu</i>	<i>tetena</i>	<i>sinsini</i>	<i>seseɣe</i>
ORYA	<i>dokot</i>	<i>hule-n</i>	<i>ngapngap-na</i>	<i>kakak-na</i>
DANI	<i>ligi</i>	<i>keelemaake</i>	<i>laambu</i>	<i>mili</i>
DEMISA	<i>hemiya</i>	<i>here</i>	<i>haul</i>	<i>giho</i>

Language	98. red	99. yellow	100. green	101. bird
SAPONI	<i>iwi-re</i>	<i>nōwia-re</i>	<i>kōwō-re</i>	<i>kōre</i>
RASAWA	<i>puβa-no</i>	<i>tetimi</i>	<i>ori-no</i>	<i>beβo</i>
AWERA	<i>ude-βi</i>	<i>ye-βi</i>	<i>sie-βi</i>	<i>ari</i>
WEIRATE	<i>agra</i>	---	---	<i>du</i>
DEIRATE	<i>aka</i>	<i>deo</i>	---	<i>usudi</i>
TAUSE	<i>axara</i>	<i>are</i>	<i>dei</i>	<i>ndu</i>
SEHUDATE	<i>eya</i>	---	---	<i>a^u</i>
FAYU	<i>aio</i>	<i>keihare</i>	<i>asai</i>	<i>au</i>
FAIA	---	---	---	<i>du</i>
KIRIKIRI	<i>uda-we</i>	<i>bua-we</i>	<i>ti[^]</i>	<i>du</i>
EDOPI	<i>koura</i>	<i>bu-bai</i>	<i>sata</i>	<i>desi tou</i>
IAU	<i>auī-be</i>	<i>mae-be</i>	<i>sa-to-be</i>	<i>dusi</i>
DUVLE	<i>pruru</i>	<i>siri</i>	<i>sætæri</i>	<i>fura</i>
DOUTAI	<i>di</i>	<i>keri[^]e</i>	<i>kebi[^]</i>	<i>du</i>
WARITAI	<i>tia</i>	<i>kri</i>	<i>tri[^]</i>	<i>tu</i>
KAI	<i>di</i>	<i>debaøru</i>	<i>uhuya</i>	<i>du</i>
BIRITAI	<i>de</i>	<i>asa-hau</i>	<i>edie</i>	<i>du</i>
OBOKUITAI	<i>di</i>	<i>asa-haub⁷</i>	<i>u</i>	<i>du</i>
ERITAI	<i>tiro</i>	<i>hou</i>	<i>ehiu</i>	<i>du</i>
SIKARITAI	<i>di</i>	<i>deba-hud⁷</i>	<i>akebiseja</i>	<i>du</i>
KAURE	<i>ti</i>	<i>kəli</i>	<i>timberkluk</i>	<i>hu</i>
BAUZI	<i>bozit/buhet</i>	<i>hau-alihole</i>	<i>gahat</i>	<i>bume</i>
BERIK	<i>berbere</i>	<i>bwelkatbwelkat</i>	<i>tiala ikikini</i>	<i>ju</i>
ORYA	<i>kalakal-a</i>	<i>yongyong-na</i>	<i>tealaæsese-na</i>	<i>mawa</i>
DANI	<i>laambu</i>	<i>laambu</i>	<i>nggere⁷ngga</i>	<i>towe</i>
DEMISA	<i>jimi</i>	<i>gaihai</i>	<i>haugwai</i>	<i>bijana</i>

Language	102. egg	103. wing	104. to fly	105. cassowary
SAPONI	<i>aiware</i>	<i>uyore</i>	<i>ayoyawo</i>	<i>ieie</i>
RASAWA	<i>uβa</i>	<i>uxai</i>	<i>axokira</i>	<i>kiri</i>
AWERA	<i>oryo</i>	<i>oywæ</i>	<i>aunæ</i>	<i>kri:ya</i>
WEIRATE	<i>kokoaphli</i>	<i>azadayai</i>	---	<i>jari</i>
DEIRATE	<i>abi</i>	<i>phiakai</i>	<i>kobe</i>	<i>jadi</i>
TAUSE	---	---	<i>truwaro</i>	<i>yari</i>
SEHUDATE	<i>etai</i>	<i>a^uro</i>	<i>naio</i>	<i>jai</i>
FAYU	<i>atai</i>	---	<i>beru?</i>	<i>jai</i>
FAIA	<i>dute</i>	<i>tere-ki</i>	---	<i>de</i>
KIRIKIRI	<i>dute</i>	---	<i>diada-kia</i>	<i>dei</i>
EDOPI	<i>bi</i>	<i>apu</i>	<i>bidai</i>	<i>dai</i>
IAU	<i>bi</i>	<i>o-ki</i>	<i>ui</i>	<i>dai</i>
DUVLE	<i>ævisa</i>	<i>birayaⁱ</i>	<i>da/do^u</i>	<i>kobiso</i>
DOUTAI	<i>ebisa</i>	<i>birako</i>	<i>təbei[^]ri-wa</i>	---
WARITAI	<i>ko</i>	<i>doru[^]</i>	<i>tibidi-wa</i>	---
KAI	<i>ako</i>	<i>aku</i>	<i>douj-wa</i>	---
BIRITAI	<i>asau</i>	---	<i>tei[^]aka</i>	<i>dai</i>
OBOKUTTAI	<i>ako</i>	<i>arab⁷</i>	<i>hihide-kwa</i>	<i>ku</i>
ERITAI	<i>oko</i>	<i>akahu</i>	<i>hihiro-ku</i>	---
SIKARITAI	<i>ako</i>	<i>asod⁷</i>	<i>uhud⁷ tuejua</i>	---
KAURE	<i>te</i>	<i>tai</i>	<i>kalatəlu</i>	<i>kuwi</i>
BAUZI	<i>oo</i>	<i>buseha</i>	<i>boia</i>	<i>bihi</i>
BERIK	<i>sui</i>	<i>farta</i>	<i>ifunu</i>	---
ORYA	<i>sik</i>	<i>sī</i>	<i>ihe-n</i>	<i>dugwa</i>
DANI	<i>eko</i>	<i>eeruwak</i>	<i>wiganinuk naga</i>	<i>ndiimbu</i>
DEMISA	<i>mwa</i>	<i>jaha</i>	---	<i>bije</i>

Language	106. fly	107. mosquito	108. dog	109. big
SAPONI	<i>pɔ'ɛ-rɛ</i>	<i>kiwɛ-rɛ</i>	<i>kayɔ-rɛ</i>	<i>puwɔ</i>
RASAWA	<i>poisa</i>	<i>tra</i>	<i>kako</i>	<i>pu</i>
AWERA	<i>poisia</i>	<i>ki:βæ</i>	<i>keβu</i>	<i>wira</i>
WEIRATE	<i>ama</i>	<i>sre</i>	<i>sa</i>	<i>weφe</i>
DEIRATE	<i>φu</i>	<i>se</i>	<i>sa</i>	<i>kwefe</i>
TAUSE	<i>φu</i>	<i>səre</i>	<i>sa</i>	<i>kliβo</i>
SEHUDATE	---	<i>tɛ</i>	<i>dai</i>	<i>nakuti</i>
FAYU	<i>kotahari</i>	<i>tɛ</i>	<i>dai</i>	<i>yuti</i>
FAIA	<i>kwari</i>	<i>tɛ</i>	<i>nabi</i>	<i>hekwase</i>
KIRIKIRI	<i>kwari</i>	<i>tɛ</i>	<i>nabi</i>	<i>φire</i>
EDOPI	<i>badi</i>	<i>tɛ</i>	<i>dabe</i>	<i>ahara-beyi</i>
IAU	<i>ba'</i>	<i>tɛ</i>	<i>la</i>	<i>isi-be</i>
DUVLE	<i>fæ'a gari</i>	<i>biraru</i>	<i>færi</i>	<i>koburo vre</i>
DOUTAI	<i>du^ari</i>	<i>du^i^</i>	<i>dai^</i>	<i>kraio-ri</i>
WARITAI	<i>sukweri</i>	<i>teri</i>	<i>səga</i>	<i>boku^o-ri</i>
KAI	<i>du^ari</i>	<i>wise</i>	<i>su^a</i>	<i>kraiori</i>
BIRITAI	<i>kare</i>	<i>edaru</i>	<i>dau</i>	<i>esoke</i>
OBOKUITAI	<i>kware</i>	<i>u</i>	<i>dau</i>	<i>akaig'so</i>
ERITAI	<i>kwai</i>	<i>u</i>	<i>dao</i>	<i>sokuokwei</i>
SIKARITAI	<i>kwahu</i>	<i>u</i>	<i>sua</i>	<i>kuɛg'</i>
KAURE	<i>ali</i>	<i>yapuwa</i>	<i>se</i>	<i>simbua</i>
BAUZI	<i>fabe</i>	<i>fabe</i>	<i>vem</i>	<i>duat</i>
BERIK	<i>nebel</i>	<i>san</i>	<i>gwala</i>	<i>unggwandusa</i>
ORYA	<i>ĩmbil</i>	<i>san</i>	<i>lwa-na</i>	<i>mamna/yawala</i>
DANI	<i>ti'nebon</i>	<i>lamengga'nggan</i>	<i>nggewo</i>	<i>nggwok</i>
DEMISA	<i>nahi</i>	<i>kwabi</i>	<i>nimi</i>	---

Language	110. small	111. this	112. that	113. same
SAPONI	<i>sinɔyɔ</i>	<i>misira</i>	<i>mireⁱ</i>	---
RASAWA	<i>wino</i>	---	---	<i>oxra</i>
AWERA	<i>wetoβa</i>	---	---	<i>ra</i>
WEIRATE	<i>kaφre</i>	---	---	<i>fato-re</i>
DEIRATE	<i>kafe</i>	---	---	<i>asa fadodo</i>
TAUSE	<i>kaβare</i>	<i>ai/we</i>	<i>ai/we</i>	---
SEHUDATE	<i>buse</i>	---	---	<i>fara-we</i>
FAYU	<i>bosa</i>	<i>ari</i>	---	<i>aha-re</i>
FAIA	<i>kokoβai</i>	---	---	---
KIRIKIRI	<i>so</i>	<i>bei</i>	<i>bei</i>	<i>fara-we</i>
EDOPI	<i>hakaw-beyi</i>	<i>ma</i>	<i>di</i>	<i>holamaladi</i>
IAU	<i>kodu-be</i>	<i>bo</i>	<i>aibo</i>	<i>φai-ha-made</i>
DUVLE	<i>obyo^u ka</i>	<i>di/du</i>	<i>a</i>	<i>æbræ pe'reso</i>
DOUTAI	<i>boku</i>	---	---	<i>pægeise</i>
WARITAI	<i>rita-ri</i>	---	---	---
KAI	<i>tigiori</i>	---	---	---
BIRITAI	<i>tuhuaye</i>	<i>are</i>	<i>biai</i>	<i>hatiaye</i>
OBOKUTAI	<i>osukode</i>	<i>da</i>	<i>bra</i>	<i>heti</i>
ERITAI	<i>korakikore</i>	---	---	---
SIKARITAI	<i>egki</i>	---	---	---
KAURE	<i>tanya</i>	<i>tu</i>	<i>kotu</i>	<i>bui</i>
BAUZI	<i>kɔenæ</i>	<i>nim</i>	<i>glam</i>	<i>ulohot</i>
BERIK	<i>bastantoiya</i>	<i>an</i>	<i>in</i>	---
ORYA	<i>betek-na</i>	<i>an</i>	<i>in</i>	<i>apdenak</i>
DANI	<i>mbuuluk</i>	<i>yi</i>	<i>ti</i>	<i>ndak-ndak</i>
DEMISA	---	---	---	---

Language	114. different	115. bite/chew	116. tail	117. fish
SAPONI	---	<i>kiwawo</i>	<i>ware</i>	<i>karore</i>
RASAWA	<i>wa</i>	<i>tri-ro</i>	<i>wayo</i>	<i>deβrayo</i>
AWERA	<i>kariko</i>	<i>owi</i>	<i>orioru</i>	<i>tæ</i>
WEIRATE	<i>katowakade</i>	---	<i>tiba</i>	<i>se</i>
DEIRATE	<i>debasane?</i>	<i>dɔjanu</i>	<i>tiβade</i>	<i>se</i>
TAUSE	---	<i>dɔβrio</i>	<i>tiba</i>	<i>se</i>
SEHUDATE	<i>fasahaugo</i>	<i>biario</i>	<i>a-tida</i>	---
FAYU	<i>φare</i>	---	<i>a-dira</i>	<i>te</i>
FAIA	---	---	<i>fu</i>	<i>hia</i>
KIRIKIRI	<i>φua-kai</i>	<i>sa</i>	<i>fuo</i>	<i>φia</i>
EDOPI	<i>kuasohoradie</i>	<i>palai</i>	<i>si</i>	<i>hia</i>
IAU	<i>sade</i>	<i>sa</i>	<i>si tæ</i>	<i>φi/hi</i>
DUVLE	<i>ga'ε</i>	<i>bo bi</i>	<i>æyai</i>	<i>tæ</i>
DOUTAI	---	<i>bou-wa</i>	<i>ekiyai</i>	<i>tε</i>
WARITAI	---	<i>boudi-wa</i>	<i>kari^</i>	<i>teri^</i>
KAI	---	<i>bouru-wa</i>	<i>ati^</i>	<i>tε</i>
BIRITAI	<i>aha-tiai</i>	<i>daka</i>	<i>adi</i>	<i>tε</i>
OBOKUITAI	<i>akaig⁷jeka</i>	<i>boru-kwa</i>	<i>atig⁷</i>	<i>te</i>
ERITAI	---	<i>boru-ku</i>	<i>eti</i>	<i>tε</i>
SIKARITAI	---	<i>bodoa</i>	<i>atig⁷</i>	<i>dεd⁷</i>
KAURE	<i>klakla</i>	<i>kaptre</i>	<i>buay</i>	<i>biula</i>
BAUZI	<i>ulo^{ho} kai</i>	<i>æda</i>	<i>degoso</i>	<i>bohe</i>
BERIK	---	<i>jerbini</i>	<i>nanggara</i>	<i>jigal</i>
ORYA	<i>srən</i>	<i>twinbi-n</i>	<i>abal</i>	<i>hogwe</i>
DANI	<i>alidak</i>	<i>eyakmbangge</i>	<i>aga</i>	<i>ikan</i>
DEMISA	---	---	<i>waha</i>	<i>wabice</i>

Language	118. leech	119. louse	120. pig	121. shoot
SAPONI	<i>kire</i>	<i>wakire</i>	<i>kwere</i>	<i>kirawo</i>
RASAWA	<i>kiβayo</i>	<i>piye</i>	<i>kaβo</i>	<i>biziye</i>
AWERA	<i>kiβa</i>	<i>piri</i>	<i>nu</i>	<i>koβou</i>
WEIRATE	<i>aφi</i>	<i>φli</i>	<i>i^e</i>	<i>kwa</i>
DEIRATE	<i>iφi</i>	<i>φire</i>	<i>i^e</i>	<i>kware</i>
TAUSE	<i>iβi</i>	<i>φri</i>	<i>i^e</i>	---
SEHUDATE	---	<i>φiri</i>	<i>kwa</i>	<i>korō</i>
FAYU	<i>dayai</i>	<i>φiri</i>	<i>ire</i>	<i>auo</i>
FAIA	<i>ki</i>	<i>hni</i>	<i>se</i>	<i>kware</i>
KIRIKIRI	<i>ki</i>	<i>φli</i>	<i>si^e</i>	<i>kware</i>
EDOPI	<i>a:u</i>	<i>do:u</i>	<i>di</i>	<i>mai</i>
IAU	<i>ki</i>	<i>ibo</i>	<i>du</i>	<i>ma</i>
DUVLE	<i>kabi</i>	<i>pri</i>	<i>dira</i>	<i>vada</i>
DOUTAI	---	<i>pri</i>	<i>i^</i>	---
WARITAI	---	<i>φri</i>	<i>i^</i>	---
KAI	---	<i>fri</i>	<i>i^</i>	---
BIRITAI	<i>ihi</i>	<i>hi</i>	<i>di</i>	<i>kaka</i>
OBOKUITAI	<i>kibi</i>	<i>hri</i>	<i>ig⁷/dig⁷</i>	<i>kwei</i>
ERITAI	---	<i>hiri</i>	<i>di</i>	---
SIKARITAI	---	<i>fri</i>	<i>dik⁷</i>	<i>burei-wa</i>
KAURE	<i>hame</i>	<i>mi</i>	<i>pi</i>	<i>kahu</i>
BAUZI	<i>dæmi</i>	<i>vəa</i>	<i>dohō</i>	<i>dō</i>
BERIK	---	<i>nenā</i>	<i>twin</i>	---
ORYA	<i>dam</i>	<i>kultuk</i>	<i>gwe</i>	<i>sertyan</i>
DANI	<i>amela</i>	<i>abee</i>	<i>wam</i>	<i>nambuke</i>
DEMISA	<i>dami</i>	<i>yo</i>	<i>beiji</i>	---

Language	122. worm	123. snake	124. long	125. short (length)
SAPONI	<i>kipé'wə</i>	<i>pere</i>	<i>pəwire</i>	<i>nereje</i>
RASAWA	<i>boi</i>	<i>pe</i>	<i>puβi</i>	<i>mono</i>
AWERA	<i>æi</i>	<i>karuwæ</i>	<i>ɔβi</i>	<i>pweyeβi</i>
WEIRATE	---	<i>φi</i>	---	---
DEIRATE	<i>φire</i>	<i>φi</i>	<i>haibukuwe?</i>	<i>φiφe?</i>
TAUSE	<i>fau</i>	<i>φi</i>	<i>kwidare</i>	<i>kwegəre</i>
SEHUDATE	---	<i>kɔru</i>	<i>kurei</i>	<i>kuti</i>
FAYU	<i>kuoi</i>	<i>kouha</i>	<i>kuɔhi</i>	---
FAIA	---	<i>keβu</i>	<i>ure-βe</i>	---
KIRIKIRI	<i>φu</i>	<i>keβu</i>	<i>ure-we</i>	<i>uri-so-we</i>
EDOPI	<i>ha:u</i>	<i>balau</i>	<i>behebei</i>	<i>oto-bei</i>
IAU	<i>hao</i>	<i>behe</i>	<i>be-be</i>	<i>kabu-be</i>
DUVLE	<i>abrayo</i>	<i>dibi/bæ'a---</i>	<i>fraya</i>	<i>ze</i>
DOUTAI	---	<i>kei</i>	<i>kweri^</i>	<i>dou^</i>
WARITAI	---	<i>təbi</i>	<i>kwri^</i>	<i>tou^</i>
KAI	---	<i>kai</i>	<i>kweri</i>	<i>dou^tigi</i>
BIRITAI	<i>kecahie</i>	<i>hiyo</i>	<i>kariake</i>	<i>dau</i>
OBOOKITAI	<i>kuɛig'sahrig'ja</i>	<i>kei</i>	<i>kwerig'</i>	<i>doub'</i>
ERITAI	---	<i>kei</i>	<i>kweriokwei</i>	<i>douhatu</i>
SIKARITAI	---	<i>debi</i>	<i>kwed'</i>	<i>dokug'</i>
KAURE	<i>motay</i>	<i>hay</i>	<i>hewa</i>	<i>tamsi</i>
BAUZI	<i>seɔsɔ</i>	<i>mum</i>	<i>bohulat</i>	<i>zəhəbut</i>
BERIK	---	<i>awas</i>	<i>bubwolna</i>	<i>tofora</i>
ORYA	<i>auhu</i>	<i>wanya</i>	<i>blal-a</i>	<i>tihis-ni</i>
DANI	<i>puuron</i>	<i>waalo</i>	<i>nggorek</i>	<i>kuwagaluk</i>
DEMISA	<i>soronacu</i>	<i>demo</i>	---	---

Language	126. rat	127. full	128. house	129. new
SAPONI	<i>nereje</i>	<i>moluwiwə</i>	<i>arɛ</i>	<i>æje</i>
RASAWA	<i>pya</i>	<i>obuyi</i>	<i>aru</i>	<i>inu</i>
AWERA	<i>məræ:i</i>	<i>oβo:ri</i>	<i>aru</i>	<i>βri</i>
WEIRATE	<i>diga</i>	---	<i>taye</i>	---
DEIRATE	---	---	<i>taka</i>	<i>fa^u</i>
TAUSE	<i>tedakwe</i>	<i>βɛφɛ</i>	<i>taye</i>	<i>kaβa-re</i>
SEHUDATE	---	---	<i>a</i>	---
FAYU	<i>uda</i>	---	<i>a</i>	<i>asai</i>
FAIA	<i>koda</i>	---	<i>kwa</i>	---
KIRIKIRI	<i>koφla</i>	---	<i>kwa</i>	<i>kedī</i>
EDOPI	<i>kōisidi</i>	<i>βetahorədi</i>	<i>uda</i>	<i>to-be</i>
IAU	<i>boti</i>	<i>bi æ</i>	<i>ui</i>	<i>to-be</i>
DUVLE	<i>puseyæⁱ</i>	<i>oraya vareso</i>	<i>boyoⁱa</i>	<i>æri</i>
DOUTAI	<i>tura</i>	<i>werarijake</i>	<i>kwari</i>	<i>səgari[^]</i>
WARITAI	<i>su[^]gwi[^]</i>	<i>weraritake</i>	<i>kwari</i>	<i>sgari[^]</i>
KAI	<i>su[^]i[^]</i>	<i>awetaru</i>	<i>kwari</i>	<i>kasi</i>
BIRITAI	<i>tosai</i>	<i>akau-dodi</i>	<i>kari</i>	<i>hidoaye</i>
OBOKUITAI	<i>tuseig^ː</i>	<i>akwitaru</i>	<i>kwəri</i>	<i>sakarig^ː</i>
ERITAI	<i>bisa</i>	<i>okwetaruei</i>	<i>kwəri</i>	<i>kesi</i>
SIKARITAI	<i>tusog^ː/dokug^ː</i>	<i>awetadekwako</i>	<i>kwa</i>	<i>sgad^ː</i>
KAURE	<i>day</i>	<i>kahiyan</i>	<i>mba</i>	<i>haria</i>
BAUZI	<i>æhægina</i>	<i>bektə</i>	<i>numa</i>	<i>gæhæt</i>
BERIK	<i>bokosi</i>	<i>tenbisini</i>	<i>ja</i>	<i>tansi</i>
ORYA	<i>kwalu</i>	<i>beya-gwe-n</i>	<i>gol</i>	<i>əse-na</i>
DANI	<i>ambeya</i>	<i>iyagabit</i>	<i>ome</i>	<i>nggetmendek</i>
DEMISA	<i>sehu</i>	---	<i>numa</i>	---

Language	130. old	131. thatch	132. in front	133. outside
SAPONI	<i>a'wefeje</i>	<i>ka^uwore</i>	<i>ayarore</i>	<i>huweje</i>
RASAWA	<i>eøe</i>	<i>kira</i>	<i>oyo</i>	<i>uβu</i>
AWERA	<i>kaiβe</i>	<i>peiræ</i>	<i>rwæ</i>	<i>maugwa</i>
WEIRATE	---	<i>du</i>	---	---
DEIRATE	<i>øaka</i>	<i>du</i>	---	---
TAUSE	<i>kriβore</i>	---	---	---
SEHUDATE	---	---	---	---
FAYU	<i>øβëro</i>	---	---	---
FAIA	---	<i>kwa-kura</i>	---	---
KIRIKIRI	<i>teβa</i> <i>ida</i> (people)	<i>kwa-kura</i>	---	---
EDOPI	<i>ba-bei</i>	<i>uda-hi</i>	<i>aulowi</i>	<i>teu-bei</i>
IAU	<i>ba-be</i>	<i>ui-hi</i>	<i>aui</i>	<i>øoe</i>
DUVLE	<i>kro</i>	<i>bogoia obi</i>	<i>varıyu</i>	<i>pia tugıgu</i>
DOUTAI	<i>tıro</i>	---	<i>graai</i>	<i>wriako</i>
WARITAI	<i>ko</i>	---	<i>kaitai</i>	<i>wriako</i>
KAI	<i>abərise</i>	---	<i>akəritari</i>	<i>kweiso</i>
BIRITAI	<i>do</i>	<i>du</i>	<i>oaidəyai</i>	<i>utuo</i>
OBOKUITAI	<i>kro</i>	<i>akrub⁷</i>	<i>aig⁷</i>	<i>ireiko</i>
ERITAI	<i>ehrite</i>	---	<i>ehiteiko</i>	<i>ireiko</i>
SIKARITAI	<i>apidte</i>	---	<i>asitoko</i>	<i>asitako</i>
KAURE	<i>kambarü</i>	<i>bambe</i>	<i>bahapu</i>	<i>həlaipe</i>
BAUZI	<i>faide</i>	<i>øhut</i>	<i>avaesu</i>	<i>bako</i>
BERIK	<i>bak</i>		<i>mukanawer</i>	<i>sitawer</i>
ORYA	<i>əpba-na</i>	<i>gol ala</i>	<i>danglak</i>	<i>æna-k</i>
DANI	<i>maanmedek</i>	<i>kaluwungge</i>	<i>enaame</i>	<i>endekem</i>
DEMISA	---	<i>nata</i>	---	---

Language	134. inside	136. right	137. left	138. near
SAPONI	<i>diorɛ</i>	<i>yurɛɛ</i>	<i>tura^u</i>	<i>a'ɔfɛjɛ</i>
RASAWA	<i>uze</i>	<i>oβɔ</i>	<i>uxa</i>	<i>ai</i>
AWERA	<i>goβɔ</i>	<i>riβyaβɔ</i>	<i>ka:i</i>	<i>paiyaβi</i>
WEIRATE	---	---	---	---
DEIRATE	---	---	---	<i>kari</i>
TAUSE	---	<i>sakra</i>	---	---
SEHUDATE	---	---	---	---
FAYU	---	---	---	---
FAIA	---	---	---	---
KIRIKIRI	---	<i>katu-we/naudi</i>	<i>taiu</i>	---
EDOPI	<i>udataudo:i</i>	---	---	<i>kuateka-bei</i>
IAU	<i>ta</i>	<i>ɸutau-i-be</i>	<i>ae-be</i>	<i>iba-be</i>
DUVLE	<i>ve'ⁱagu</i>	---	---	<i>ko</i>
DOUTAI	<i>esi[^]</i>	<i>ei[^]</i>	<i>prabo</i>	<i>debai[^]</i>
WARITAI	<i>kako</i>	<i>ei[^]</i>	<i>pra</i>	<i>kei</i>
KAI	<i>kwiteri</i>	<i>akeiɸo</i>	<i>akeikaho</i>	<i>atahai</i>
BIRITAI	<i>aratau</i>	<i>ayaho</i>	<i>teboho</i>	<i>aihai</i>
OBOKUITAI	<i>akwitaru-ko</i>	<i>oig⁷jo</i>	<i>kare</i>	<i>ahiteig⁷</i>
ERITAI	<i>okwitaruko</i>	<i>ojo</i>	<i>kare</i>	<i>ehitei</i>
SIKARITAI	<i>akaɗ⁷ko</i>	<i>ig⁷ko</i>	<i>badako</i>	<i>asito</i>
KAURE	<i>loxopa</i>	<i>wainapet</i>	<i>waitoape</i>	<i>ɸuaipa</i>
BAUZI	<i>-a</i>	<i>aitot</i>	<i>soitot</i>	<i>notat</i>
BERIK	<i>ærməp</i>	<i>tæsfɔrawɛr</i>	<i>gwejawɛr</i>	<i>gwetmana</i>
ORYA	<i>mwa-nak</i>	<i>dam-san</i>	<i>irgwa-san</i>	<i>golek</i>
DANI	<i>iniki me</i>	<i>abe'nggam</i>	<i>kwaare'nggam</i>	<i>korok</i>
DEMISA	---	---	---	---

Language	139. far	140. person	141. good	142. bad
SAPONI	<i>iwifeje</i>	<i>nuwore</i>	<i>tore</i>	<i>keweyawo</i>
RASAWA	<i>iβi</i>	<i>duβu</i>	<i>toxo</i>	<i>kaiβi</i>
AWERA	<i>moro:βi</i>	<i>nu</i>	<i>æβi</i>	<i>kiye</i>
WEIRATE	---	<i>tere</i>	---	---
DEIRATE	<i>kaφadi</i>	<i>tedi</i>	<i>keβaido</i>	<i>fe</i>
TAUSE	---	<i>tere</i>	<i>kəβai</i>	<i>axo φere</i>
SEHUDATE	---	<i>aβo</i>	---	---
FAYU	<i>uhi</i>	<i>tu</i>	<i>kaha</i>	<i>φei</i>
FAIA	---	<i>te</i>	---	---
KIRIKIRI	<i>ude-we</i>	<i>te</i>	<i>naudi</i>	<i>φei</i>
EDOPI	<i>kuaorateri</i>	<i>te</i>	<i>lakei</i>	<i>awai</i>
IAU	<i>daoe</i>	<i>te</i>	<i>laki</i>	<i>φe-be</i>
DUVLE	<i>piafraya vre</i>	<i>o're</i>	<i>səbri</i>	<i>toyo^u</i>
DOUTAI	<i>kwaikweri</i>	<i>tai</i>	<i>sari</i>	<i>pru</i>
WARITAI	<i>kwaikwri[^]</i>	<i>tai</i>	<i>sari</i>	<i>pga</i>
KAI	<i>iyjekweri</i>	<i>tai</i>	<i>sari</i>	<i>φru</i>
BIRITAI	<i>sukwade</i>	<i>ta</i>	<i>kaike</i>	<i>adiho</i>
OBOKUITAI	<i>sukweri</i>	<i>ta</i>	<i>ki-dei</i>	<i>asaikedi</i>
ERITAI	<i>jokweri</i>	<i>tore</i>	<i>dei</i>	<i>hurakre</i>
SIKARITAI	<i>ig³jekwed⁷</i>	<i>tro</i>	<i>odako</i>	<i>puriako</i>
KAURE	<i>kulenanehui</i>	<i>lemalong</i>	<i>arue</i>	<i>sipua[?]</i>
BAUZI	<i>bohulat</i>	<i>dat</i>	<i>neat</i>	<i>fait</i>
BERIK	<i>bijua</i>	<i>angtane</i>	<i>wækena</i>	<i>kakalsona</i>
ORYA	<i>langa-nak</i>	<i>zi</i>	<i>dawem</i>	<i>jaljal-a</i>
DANI	<i>nda-nda</i>	<i>aap</i>	<i>op</i>	<i>anini ambik</i>
DEMISA	---	<i>nata</i>	---	---

Language	143. male	144. female	145. husband	146. wife
SAPONI	<i>nɔ'ɛ</i>	<i>jare</i>	<i>nɔ'ɛ</i>	<i>kɔ'rɔyɔ</i>
RASAWA	<i>duβa</i>	<i>kuru</i>	<i>we</i>	<i>ɔi</i>
AWERA	<i>noβo:ru</i>	<i>ya</i>	<i>oɾβe</i>	<i>eye</i>
WEIRATE	<i>i</i>	<i>suo</i>	<i>sakei</i>	<i>haro</i>
DEIRATE	<i>e</i>	<i>suo</i>	---	<i>bia suokwe</i>
TAUSE	<i>e</i>	<i>su</i>	---	---
SEHUDATE	<i>tɔrio</i>	<i>tito</i>	---	---
FAYU	<i>tɔrɔio</i>	<i>arü</i>	---	<i>türo</i>
FAIA	<i>sigua</i>	---	<i>ekokwadau?</i>	<i>ku</i>
KIRIKIRI	<i>tiayai</i>	<i>ko</i>	<i>tiayai</i>	<i>ko</i>
EDOPI	<i>tɛ</i>	<i>si</i>	<i>tɛ</i>	<i>si</i>
IAU	<i>tɛ</i>	<i>si</i>	<i>tɛ</i>	<i>si</i>
DUVLE	<i>farabu</i>	<i>oruæⁱ</i>	<i>durɛ</i>	<i>æseyɛ</i>
DOUTAI	<i>seri</i>	<i>səge</i>	---	---
WARITAI	<i>tria</i>	<i>bai[^]</i>	---	---
KAI	<i>titeri</i>	<i>tu[^]</i>	---	---
BIRITAI	<i>todijo</i>	<i>tu</i>	<i>tadio</i>	<i>tu</i>
OBOKUITAI	<i>tiseri</i>	<i>tub⁷</i>	<i>tiseri</i>	<i>tub⁷</i>
ERITAI	<i>titeri</i>	<i>tu</i>	---	---
SIKARITAI	<i>tso huraro</i>	<i>tug⁷</i>	---	---
KAURE	<i>didu?</i>	<i>dai?</i>	<i>dokesai</i>	<i>dindai</i>
BAUZI	<i>dam</i>	<i>lahi</i>	<i>dat soabo</i>	<i>duta</i>
BERIK	<i>anggwa</i>	<i>wi</i>	---	---
ORYA	<i>zirya</i>	<i>wenya</i>	<i>zi</i>	<i>we wal</i>
DANI	<i>aap</i>	<i>kwe</i>	<i>ogonggelo</i>	<i>akwe</i>
DEMISA	<i>damateha</i>	<i>nodeñata</i>	<i>no</i>	<i>no</i>

Language	147. father	148. mother	149. child	150. 1SG
SAPONI	<i>nuaⁱε</i>	<i>nɔrε</i>	<i>mararε</i>	<i>mamirε</i>
RASAWA	<i>wa</i>	<i>ɔ</i>	<i>uri</i>	<i>eβe</i>
AWERA	<i>oyæ</i>	<i>otu</i>	<i>onwi</i>	<i>yai</i>
WEIRATE	<i>awa</i>	<i>awe</i>	<i>tabri</i>	<i>di</i>
DEIRATE	<i>ise</i>	<i>awe</i>	<i>taβi</i>	<i>di bedo</i>
TAUSE	<i>awa</i>	<i>awe</i>	<i>taubri</i>	<i>di</i>
SEHUDATE	---	---	<i>tahi</i>	---
FAYU	<i>aφɔ</i>	<i>kuai</i>	<i>teha</i>	<i>a</i>
FAIA	<i>a</i>	<i>e</i>	<i>te</i>	<i>ε</i>
KIRIKIRI	<i>ai/kayoi</i>	<i>kwei/ia</i>	<i>te</i>	<i>a</i>
EDOPI	<i>awa</i>	<i>ja</i>	<i>sau</i>	<i>a</i>
IAU	<i>a</i>	<i>ate</i>	<i>sɔ</i>	<i>a</i>
DUVLE	<i>aⁱse</i>	<i>isa</i>	<i>ziri</i>	<i>æ</i>
DOUTAI	<i>bai[^]</i>	<i>oru</i>	<i>tebi</i>	<i>i</i>
WARITAI	<i>bai[^]</i>	<i>wei[^]</i>	<i>tugwi[^]</i>	---
KAI	<i>abai</i>	<i>awei</i>	<i>tehei</i>	---
BIRITAI	<i>ai</i>	<i>oyi</i>	<i>tau</i>	<i>e</i>
OBOKUITAI	<i>ai</i>	<i>oig[˘]</i>	<i>teig[˘]</i>	<i>i</i>
ERITAI	<i>ayo</i>	<i>oi</i>	<i>tei</i>	---
SIKARITAI	<i>awad[˘]</i>	<i>awed[˘]</i>	<i>tue</i>	---
KAURE	<i>daji</i>	<i>nanuan</i>	<i>du[˘]</i>	<i>wε</i>
BAUZI	<i>ai</i>	<i>oi</i>	<i>data</i>	<i>e-</i>
BERIK	<i>uwa</i>	<i>iye</i>	<i>tane</i>	---
ORYA	<i>bia</i>	<i>ane</i>	<i>tane</i>	<i>æe</i>
DANI	<i>ogoba</i>	<i>agalo</i>	<i>enege</i>	<i>an</i>
DEMISA	<i>amca</i>	<i>aməra</i>	<i>dataβi</i>	<i>emdə</i>

Language	151. 2SG	152. 1PL.INCL	153. 3SG	154. 3PL
SAPONI	<i>makirawo</i>	<i>mamire</i>	<i>kimowo</i>	<i>niaware</i>
RASAWA	<i>deße</i>	<i>duwəβi</i>	<i>kɪβiye</i>	<i>kyoyo</i>
AWERA	<i>nai</i>	<i>e</i>	<i>ku</i>	<i>koro:</i>
WEIRATE	<i>ba</i>	<i>ai</i>	<i>wε</i>	---
DEIRATE	---	---	---	---
TAUSE	<i>ba</i>	---	<i>tere</i>	---
SEHUDATE	---	---	---	---
FAYU	<i>de</i>	<i>e/i</i>	---	---
FAIA	<i>di</i>	<i>iodo?</i>	---	---
KIRIKIRI	<i>de</i>	<i>e</i>	<i>be</i>	---
EDOPI	<i>di</i>	<i>e</i>	<i>di</i>	---
IAU	<i>di</i>	<i>e</i>	<i>o</i>	---
DUVLE	<i>do</i>	<i>a</i>	<i>o</i>	---
DOUTAI	---	<i>a</i>	---	---
WARITAI	---	---	---	---
KAI	---	---	---	---
BIRITAI	<i>de</i>	<i>ai</i>	<i>de</i>	---
OBOKUITAI	<i>di</i>	<i>ai</i>	---	---
ERITAI	---	---	---	---
SIKARITAI	<i>di</i>	---	<i>ba</i>	---
KAURE	<i>hane</i>	<i>nene</i>	<i>koto</i>	---
BAUZI	<i>o-</i>	<i>i-</i>	<i>a-</i>	---
BERIK	<i>em</i>	---	---	---
ORYA	<i>em</i>	<i>nən</i>	<i>zen</i>	<i>zen</i>
DANI	<i>kat</i>	<i>nit</i>	<i>at</i>	<i>it</i>
DEMISA	---	---	---	---

Language	155. who	156. what	157. name	158. come
SAPONI	<i>meroyora^u</i>	<i>misila</i>	<i>noriamoyora</i>	<i>tura^u</i>
RASAWA	<i>bresaβo</i>	<i>bisiβo</i>	<i>uβa</i>	<i>tuβo</i>
AWERA	<i>neya</i>	<i>simsebe</i>	<i>oya:βi</i>	<i>pru:die</i>
WEIRATE	<i>tore</i>	---	<i>adi sare</i>	<i>tiaje</i>
DEIRATE	---	---	---	<i>βiaje</i>
TAUSE	---	<i>idore</i>	<i>ati sira</i>	---
SEHUDATE	---	---	<i>ka</i>	<i>tire</i>
FAYU	---	---	<i>ai</i>	<i>ibo</i>
FAIA	<i>taβore</i>	---	<i>taβore?</i>	<i>kwe</i>
KIRIKIRI	<i>naboro</i>	<i>tedido</i>	<i>kwa</i>	<i>kwa</i>
EDOPI	<i>taiwe</i>	<i>teridi</i>	<i>osi</i>	<i>mai</i>
IAU	<i>te</i>	<i>te-de</i>	<i>osu</i>	<i>ma</i>
DUVLE	<i>boⁱ</i>	<i>bri</i>	<i>oⁱε</i>	<i>færi</i>
DOUTAI	---	<i>tei[^]ere</i>	<i>ou[^]</i>	<i>prike</i>
WARITAI	---	<i>tirare</i>	<i>ou</i>	<i>φike</i>
KAI	---	<i>teijese</i>	<i>aso^uka</i>	<i>εpriko</i>
BIRITAI	<i>taoi</i>	<i>taho</i>	<i>atue</i>	<i>tore</i>
OBOKUITAI	<i>se</i>	<i>teig^ˈju-se</i>	<i>asukwa</i>	<i>hru-kwa</i>
ERITAI	---	<i>kwiteise</i>	<i>esiba</i>	<i>huru-ku</i>
SIKARITAI	<i>te</i>	<i>ti</i>	<i>ata</i>	<i>pri-wa</i>
KAURE	<i>kar</i>	<i>kwa</i>	<i>ble</i>	<i>kahilaq</i>
BAUZI	<i>ama</i>	<i>ana</i>	<i>ε</i>	<i>le</i>
BERIK	---	<i>basa</i>	<i>bosna</i>	<i>jila</i>
ORYA	<i>nara</i>	<i>basa</i>	<i>bose-na</i>	<i>hata-n</i>
DANI	<i>ta</i>	<i>nano</i>	<i>endage</i>	<i>amok</i>
DEMISA	<i>ahidama</i>	---	---	---

Language	159. go/walk	160. turn	161. know s.th.	162. hear
SAPONI	<i>mokirira</i>	<i>miyɔra^u</i>	<i>mamaⁱwo</i>	<i>mayɔra</i>
RASAWA	<i>uyɔʒe</i>	<i>tukwero</i>	<i>maboʒiye</i>	<i>puaʒo</i>
AWERA	<i>na:o</i>	<i>piri</i>	<i>mɔriau</i>	<i>meyo</i>
WEIRATE	<i>tədiʒe</i>	---	---	<i>bero</i>
DEIRATE	<i>daro</i>	<i>ka^ukwiaro</i>	---	<i>beo</i>
TAUSE	<i>ndaro</i>	<i>truwaro</i>	---	<i>bero</i>
SEHUDATE	<i>ja</i>	---	---	<i>ihaudo?</i>
FAYU	<i>jabo</i>	---	--	<i>beⁱyo</i>
FAIA	<i>kira</i>	---	---	---
KIRIKIRI	<i>kia</i>	<i>teia?</i>	<i>ɸua</i>	<i>beika</i>
EDOPI	<i>ja</i>	<i>ɔholai</i>	---	<i>jeberi</i>
IAU	<i>i</i>	<i>ɸoha</i>	<i>dɔɛ</i>	<i>bi-bae</i>
DUVLE	<i>da/do^u</i>	<i>brɛⁱ veⁱ</i>	<i>garura</i>	<i>bo^u/bæⁱ</i>
DOUTAI	<i>sa</i>	---	---	<i>bgoru-wa</i>
WARITAI	---	---	---	<i>kru-wa</i>
KAI	---	---	---	<i>kweri-wa</i>
BIRITAI	<i>se</i>	<i>tuedaya</i>	<i>eʒi</i>	<i>bokadi-ka</i>
OBOKUITAI	<i>do-kwa</i>	<i>tuere-kwa</i>	<i>bi</i>	<i>kweri-kwa</i>
ERITAI	---	---	---	<i>kweri-ku</i>
SIKARITAI	---	---	---	<i>kue-wa</i>
KAURE	<i>katablüt</i>	<i>kanekore?</i>	<i>tawai</i>	<i>kahüla</i>
BAUZI	<i>la</i>	<i>vakte</i>	<i>ɔzobohut</i>	<i>aii</i>
BERIK	<i>sofwer</i>	---	---	<i>sar-bana</i>
ORYA	<i>song gwen</i>	<i>wale gwen</i>	<i>tawa-na</i>	<i>salblan</i>
DANI	<i>nage</i>	<i>yendok-wandok</i>	<i>eenu</i>	<i>aruk konengge</i>
DEMISA	---	---	---	---

Language	163. see	164. search	165. talk	166. true
SAPONI	<i>mama'iwo</i>	<i>a'ayawo</i>	<i>makwa'to</i>	<i>wajofowe</i>
RASAWA	<i>paʒo</i>	<i>paxaʒo</i>	<i>piyoʒoʒo</i>	<i>pyere</i>
AWERA	<i>æyo</i>	<i>pwara</i>	<i>koʒu</i>	<i>sigroʒu</i>
WEIRATE	<i>kwado</i>	---	<i>kawa-je</i>	---
DEIRATE	---	---	<i>foi-de</i>	---
TAUSE	<i>kwa</i>	<i>ʒoiriro</i>	---	<i>aʔərərə</i>
SEHUDATE	<i>biario?</i>	---	---	---
FAYU	<i>bario</i>	<i>dago</i>	<i>beiyu</i>	---
FAIA	<i>hwa</i>	<i>berorou</i>	---	---
KIRIKIRI	<i>ʒua/ʒori</i>	<i>boka-dia</i>	<i>bora-dia</i>	<i>nauri</i>
EDOPI	<i>dori</i>	<i>butetai</i>	---	<i>laki</i>
IAU	<i>dæ</i>	<i>bo-tai</i>	<i>ʒoi</i>	<i>bebe</i>
DUVLE	<i>fe'i/fo^u</i>	<i>diraro</i>	<i>po^uro/pe'i ra</i>	<i>fære</i>
DOUTAI	<i>bari^wa</i>	<i>brei^wa</i>	---	<i>tetorori</i>
WARITAI	<i>bari^wa</i>	<i>brei^ti-wa</i>	---	<i>tetorori</i>
KAI	<i>baru-wa</i>	<i>kateiji-wa</i>	---	<i>ɛori/erori</i>
BIRITAI	<i>badi</i>	<i>osoi-ka</i>	<i>atodida-ka</i>	<i>kitayɛ</i>
OBOKUITAI	<i>badub⁷-kwa</i>	<i>akweseido-kwa</i>	<i>kude-kua</i>	<i>kwite</i>
ERITAI	<i>beja-ku</i>	<i>okwesaido-ku</i>	---	<i>bakai</i>
SIKARITAI	<i>beju-a</i>	<i>akasiɗ'ju-a</i>	---	<i>ɛlekwe</i>
KAURE	<i>kahula</i>	<i>kahulut</i>	<i>kabru</i>	<i>nana?</i>
BAUZI	<i>aa</i>	<i>nabi</i>	<i>im vamea</i>	<i>imbot</i>
BERIK	<i>damtana</i>	<i>terebili</i>	---	<i>bunar</i>
ORYA	<i>hla-tan</i>	<i>teibin</i>	<i>ton</i>	<i>eiwa</i>
DANI	<i>pekkage</i>	<i>kwaake</i>	<i>wone mbangge</i>	<i>abet</i>
DEMISA	---	---	---	---

Language	167. drink	168. suck	169. eat	170. spit
SAPONI	<i>o-yawo</i>	<i>tu-yawo</i>	<i>ki-wawo</i>	<i>noyuweneje</i>
RASAWA	<i>o-xaβo</i>	<i>tu-xaβo</i>	<i>ki-βaβo</i>	<i>tuβe-xaβo</i>
AWERA	<i>tu</i>	<i>tuwo</i>	<i>mro</i>	<i>rwaβo</i>
WEIRATE	<i>ira tawaje</i>	<i>totawaje</i>	<i>tawaje</i>	---
DEIRATE	<i>faja</i>	<i>ma</i>	<i>jafa</i>	<i>fikwaja</i>
TAUSE	<i>eda</i>	<i>boirə</i>	<i>ya</i>	<i>φligoya</i>
SEHUDATE	---	---	---	---
FAYU	---	---	<i>tə</i>	---
FAIA	---	---	<i>to-dao</i>	---
KIRIKIRI	<i>na-sa</i>	<i>sa</i>	<i>sa</i>	---
EDOPI	<i>ira-udai</i>	---	<i>sai</i>	<i>butora</i>
IAU	<i>e-sa</i>	<i>tui</i>	<i>sa</i>	<i>be-u-təe</i>
DUVLE	<i>dia/duo</i>	<i>dia</i>	<i>dia</i>	<i>site'e vræ fru</i>
DOUTAI	<i>kwi^da-wa</i>	<i>bosuru-wa</i>	---	<i>pri^pu-wa</i>
WARITAI	<i>kwito-wa</i>	<i>bruru-wa</i>	---	<i>φripu-wa</i>
KAI	<i>kwida-wa</i>	<i>beturu-wa</i>	---	<i>φrituru-wa</i>
BIRITAI	<i>kita-ka</i>	<i>betuda-ka</i>	<i>da-ka</i>	<i>hi^</i>
OBOKUITAI	<i>arig⁷-kwig⁷de-kwa</i>	<i>beturu-kwa</i>	<i>da-kwa/do-kwa</i>	<i>hrig⁷</i>
ERITAI	<i>kwida-ku</i>	<i>kekrido-ku</i>	---	<i>kureheri</i>
SIKARITAI	<i>kug sa-wa</i>	<i>botuwə-wa</i>	---	<i>pidtueju-a</i>
KAURE	<i>tamble</i>	<i>yalu</i>	<i>kandē</i>	<i>sui</i>
BAUZI	<i>ude</i>	<i>tomo tomo</i>	<i>æ</i>	<i>keha</i>
BERIK	<i>fos telbili</i>	<i>sorom tana</i>	---	<i>fasaula</i>
ORYA	<i>otdebin</i>	<i>srok-gun</i>	<i>tembane gwen</i>	<i>olp gun</i>
DANI	<i>yi nengge</i>	<i>nik nengge</i>	<i>nengge</i>	<i>awoori pege</i>
DEMISA	---	---	---	---

Language	171. vomit (v)	172. hit	173. stab	174. kill
SAPONI	<i>ɔlugawɔ</i>	<i>siyawɔ</i>	---	<i>ayawɔ</i>
RASAWA	<i>ao-xaβo</i>	<i>pasiro</i>	<i>kwero</i>	<i>guro</i>
AWERA	<i>au</i>	<i>mɔru</i>	<i>sio</i>	<i>pra</i>
WEIRATE	<i>oboregero</i>	<i>taje</i>	<i>besəre-je</i>	---
DEIRATE	<i>aru kwa</i>	<i>a</i>	<i>φo</i>	<i>isadasako</i>
TAUSE	<i>arobegi</i>	<i>φoro</i>	<i>bezəro</i>	<i>φoro?</i>
SEHUDATE	---	---	---	---
FAYU	<i>kuaio</i>	<i>tayo</i>	---	---
FAIA	<i>u</i>	<i>kai</i>	<i>barare</i>	---
KIRIKIRI	<i>u</i>	<i>kai</i>	<i>blare</i>	<i>kware/kai?</i>
EDOPI	<i>u-bali</i>	<i>jai</i>	<i>kabedie</i>	<i>bai</i>
IAU	<i>utɔɛ</i>	<i>di-a</i>	<i>ui</i>	<i>di</i>
DUVLE	<i>ɪ-æɪɪ</i>	<i>o^uru bra</i>	---	<i>va</i>
DOUTAI	<i>kru[^]du-wa</i>	<i>bai[^]-wa</i>	---	---
WARITAI	<i>ku[^]du-wa</i>	<i>bai[^]-wa</i>	---	---
KAI	<i>kru[^]ku-wa</i>	<i>bai-wa/ba^u-wa</i>	---	---
BIRITAI	<i>edaruda-ka</i>	<i>tida-ka</i>	<i>betida-ka</i>	<i>ka-ka---</i>
OBOKUITAI	<i>kruβ^ˈde-kwa</i>	<i>kwig^ˈde-kwa</i>	<i>be-tdaig^ˈwa</i>	<i>aub^ˈkore-kwa</i>
ERITAI	<i>kurudo-ku</i>	<i>dokwau-ku</i>	---	---
SIKARITAI	<i>ku doa</i>	<i>bog^ˈ-wa</i>	---	<i>ku-wa</i>
KAURE	<i>kɔhu</i>	<i>kakwila</i>	<i>kapiangke</i>	<i>kahu</i>
BAUZI	<i>itvɔ</i>	<i>beɔ</i>	<i>sɔte</i>	<i>ɔte</i>
BERIK	<i>mumwa</i>	<i>sabtana</i>	---	---
ORYA	<i>wæk gwen</i>	<i>lek</i>	<i>dang gulblun</i>	<i>tan</i>
DANI	<i>peyak wuke</i>	<i>wake</i>	<i>warogo mambege</i>	<i>waru</i>
DEMISA	---	---	---	---

Language	175. die	176. live	177. scrape	178. sit
SAPONI	<i>teⁱ-yawo</i>	<i>kuwabo</i>	<i>kiwi-yawo</i>	<i>kwawo</i>
RASAWA	<i>tjɔ</i>	<i>o:kakwaɔ</i>	<i>kjɔiekaɔ</i>	<i>kuwaɔ</i>
AWERA	<i>pæ</i>	<i>dwe:ri</i>	<i>kiye</i>	<i>kaɔɔi</i>
WEIRATE	<i>saya</i>	<i>wayi</i>	<i>kwari</i>	---
DEIRATE	---	---	<i>dojaka</i>	<i>ɔoko</i>
TAUSE	<i>saya</i>	---	<i>kwari-do</i>	<i>ɔogli</i>
SEHUDATE	---	---	---	---
FAYU	<i>tetare</i>	---	---	<i>korɔ</i>
FAIA	<i>soi</i>	---	<i>klie</i>	<i>bogo</i>
KIRIKIRI	<i>soi</i>	<i>mayai</i>	<i>klia</i>	<i>bogo</i>
EDOPI	<i>suai</i>	<i>udeɔeye</i>	<i>idiarie</i>	<i>bawadie</i>
IAU	<i>sui</i>	<i>hæsi</i>	<i>i</i>	<i>bau-de</i>
DUVLE	<i>saya^u</i>	<i>gari bu</i>	---	<i>dæri/doru</i>
DOUTAI	<i>eisei[^]ake</i>	<i>wrapai[^]ake</i>	---	<i>wɛi-wa</i>
WARITAI	<i>perike</i>	<i>wapaka</i>	<i>kokiri-wa</i>	<i>wɛi-wa</i>
KAI	<i>kaisobekoru</i>	<i>akapuru-wa</i>	<i>dia-wa?</i>	<i>buhu-wa</i>
BIRITAI	<i>towe</i>	<i>ahoi</i>	<i>hoa-ka</i>	<i>ebohe-ka</i>
OBOKUTAI	<i>kade-kua</i>	<i>au-hai-kwa</i>	<i>bekrig⁷de-kwa</i>	<i>behig⁷-kwa</i>
ERITAI	<i>tohoi-ku</i>	<i>ouhei</i>	<i>bekido-ku</i>	<i>wɛhi-ku</i>
SIKARITAI	<i>tabig⁷ko</i>	<i>ahakud⁷ko</i>	<i>b⁷giju-a</i>	<i>ug⁷sog⁷jua</i>
KAURE	<i>kahilang</i>	<i>halia</i>	<i>kakwatri</i>	<i>namaipa?</i>
BAUZI	<i>elo</i>	<i>ahede</i>	<i>keke</i>	<i>nusu</i>
BERIK	<i>futu</i>	<i>nuisansona</i>	<i>titiwora</i>	<i>nuini</i>
ORYA	<i>tin</i>	<i>ngay gwen</i>	<i>jun</i>	<i>nikin</i>
DANI	<i>kanggerak</i>	<i>eenik</i>	<i>nggibiingge</i>	<i>kwi[?]nage</i>
DEMISA	---	---	---	---

Language	179. stand	180. no/not	181. bathe	182. fall
SAPONI	<i>ta'ra^u</i>	<i>ari-fe-je</i>	<i>kobu-yawo</i>	<i>fasa-yawo</i>
RASAWA	<i>taro</i>	<i>poesi</i>	<i>deo-xa</i>	<i>ida-kaβo</i>
AWERA	<i>traβi</i>	<i>maβe</i>	<i>næpi</i>	<i>pægi</i>
WEIRATE	---	---	---	---
DEIRATE	<i>tejata</i>	<i>kai</i>	<i>diro</i>	<i>kaukwa</i>
TAUSE	<i>teji-do</i>	<i>kai</i>	<i>era tero</i>	<i>kaufæro</i>
SEHUDATE	---	---	---	---
FAYU	<i>taribo</i>	<i>bai/wai</i>	---	---
FAIA	<i>nara</i>	<i>dueo</i>	<i>sura</i>	---
KIRIKIRI	<i>di^are</i>	<i>tau</i>	<i>tu^ra</i>	<i>ira boisia</i>
EDOPI	<i>bidari</i>	<i>kai</i>	<i>hōra</i>	<i>uda ije</i>
IAU	<i>ui</i>	<i>ai</i>	<i>hoe</i>	<i>baisi</i>
DUVLE	<i>to^u/te⁷</i>	<i>ki</i>	<i>dobr-/dobu-</i>	<i>brobi/brobu</i>
DOUTAI	<i>kou-wa</i>	<i>bei</i>	<i>puri-wa</i>	<i>waturu-wa</i>
WARITAI	<i>witoida</i>	---	<i>wa-tu^du-wa</i>	<i>paiweri-wa</i>
KAI	<i>wita-wa</i>	---	<i>wa-tu^j-wa</i>	<i>watu^j-wa</i>
BIRITAI	<i>bitəra-kwa</i>	<i>bei-ho</i>	<i>haitata</i>	<i>haisa-kwa</i>
OBOKUITAI	<i>kwite-arig⁷kwa</i>	<i>beig⁷/ka</i>	<i>teig⁷-kwa</i>	<i>haig⁷-kwa</i>
ERITAI	<i>kitai-ku</i>	---	<i>turo-ku</i>	<i>haiseturo-ku</i>
SIKARITAI	<i>ug⁷to-wa</i>	<i>kad⁷</i>	<i>watig⁷ju-a</i>	<i>watig⁷ju-a</i>
KAURE	<i>embatuq</i>	<i>kaholi</i>	<i>bikule</i>	<i>karjela</i>
BAUZI	<i>duzu</i>	<i>kai</i>	<i>ehu</i>	<i>bite</i>
BERIK	<i>fina</i>	---	<i>fos abuli</i>	<i>janton</i>
ORYA	<i>zaun</i>	<i>bahem</i>	<i>hosa awan</i>	<i>zan</i>
DANI	<i>mi⁷nage</i>	<i>lek</i>	<i>nggume wake</i>	<i>yigeebu wangge</i>
DEMISA	---	---	---	---

Language	183. lay	184. sleep	185. dream	186. grab
SAPONI	<i>ke^jawo</i>	<i>ke^jawote^jsa^u</i>	<i>awape^je</i>	<i>sara^u</i>
RASAWA	<i>kariaβo</i>	---	<i>pio</i>	<i>swaro</i>
AWERA	<i>tēgi</i>	<i>piao</i>	<i>aβaβo</i>	<i>swa</i>
WEIRATE	---	---	---	---
DEIRATE	---	<i>φaka</i>	---	<i>sau</i>
TAUSE	---	<i>φayara-do</i>	---	<i>araro</i>
SEHUDATE	---	---	---	---
FAYU	---	<i>φari</i>	---	---
FAIA	---	---	---	---
KIRIKIRI	<i>tadu</i>	<i>tadu</i>	---	<i>φliye</i>
EDOPI	<i>arubidarie</i>	<i>tawi</i>	<i>hebetide</i>	<i>deteri</i>
IAU	<i>tai</i>	<i>φæ-kaε</i>	<i>taiha</i>	<i>dai side</i>
DUVLE	<i>tobi/tobu</i>	<i>tobi/tobu</i>	<i>to^jprie feⁱ</i>	<i>sese</i>
DOUTAI	---	<i>kwei[^]-jiwa</i>	<i>gaikokwei-jywa</i>	<i>do-wa</i>
WARITAI	---	<i>kake</i>	<i>kaipike</i>	<i>toke</i>
KAI	---	<i>ka-wa</i>	<i>akikoka-wa</i>	<i>do-wa</i>
BIRITAI	<i>akwa</i>	<i>ka</i>	<i>auwa-kwa</i>	<i>ki-ka</i>
OBOKUITAI	<i>tei-ko-kwai</i>	<i>kaig⁷-kwa</i>	<i>akai-kaig⁷-kwa</i>	<i>doub⁷-kwa</i>
ERITAI	---	<i>keido-ku</i>	<i>ekeikeido-ku</i>	<i>do-ku</i>
SIKARITAI	---	<i>keju-a</i>	<i>aked⁷ keju-a</i>	<i>do-wa</i>
KAURE	<i>kataiyangse</i>	<i>hei[?]</i>	<i>kosi</i>	<i>kalpela</i>
BAUZI	<i>bisu</i>	<i>i</i>	<i>ule</i>	<i>viεto</i>
BERIK	---	<i>nustana</i>	<i>esertana</i>	<i>tæbini</i>
ORYA	<i>glang gwen</i>	<i>nisi-tan</i>	<i>aïsıl gwen</i>	<i>irikgîn</i>
DANI	<i>windik wonage</i>	<i>nogo yege</i>	<i>abi kage</i>	<i>pigagangge</i>
DEMISA	---	---	---	---

Language	187. give	188. blow	189. breathe	190. cough
SAPONI	<i>tara^u</i>	<i>fuwara^u</i>	<i>mo^uure</i>	<i>tawi-yawo</i>
RASAWA	<i>pa:ro</i>	<i>puriro</i>	<i>ɔsih</i>	<i>uru-xo-xa</i>
AWERA	<i>mærie</i>	<i>puo</i>	<i>pu</i>	<i>oβukəri</i>
WEIRATE	---	<i>φuje</i>	---	<i>tayo</i>
DEIRATE	<i>koφi</i>	<i>φaka</i>	---	<i>taku</i>
TAUSE	---	<i>βuaro</i>	---	<i>tayaro</i>
SEHUDATE	---	---	---	---
FAYU	---	<i>düyo/behura</i>	---	---
FAIA	---	<i>φue</i>	---	<i>kosawari</i>
KIRIKIRI	<i>tu</i>	<i>uwa</i>	<i>φia</i>	<i>kosawari</i>
EDOPI	<i>dihuruφuahorai</i>	<i>boitai</i>	---	<i>taudai</i>
IAU	<i>bæ</i>	<i>φai</i>	<i>bosi</i>	<i>taui</i>
DUVLE	<i>boʔbo^u</i>	---	<i>for/foru</i>	<i>tyara buroro</i>
DOUTAI	---	<i>bopuru-wa</i>	---	<i>tagara</i>
WARITAI	---	<i>bguru-wa</i>	---	<i>ta</i>
KAI	---	<i>buhuru-wa</i>	---	<i>tagapai^i-wa</i>
BIRITAI	<i>behi-ka</i>	<i>bohura-ka</i>	<i>asa</i>	<i>tauda-ka</i>
OBOKUITAI	<i>behig⁷</i>	<i>bohuro-kwa</i>	<i>asa</i>	<i>trakur-kwa</i>
ERITAI	---	<i>bohuro-ku</i>	---	<i>kohoruku</i>
SIKARITAI	---	<i>kepig⁷ju-a</i>	<i>asai</i>	<i>awad⁷trapeawa</i>
KAURE	<i>kaklung</i>	<i>kasrung</i>	<i>kaxne</i>	<i>toxsi</i>
BAUZI	<i>lo</i>	<i>fɛu</i>	<i>ohe</i>	<i>zu</i>
BERIK	---	<i>forola</i>	---	<i>weremgwebali</i>
ORYA	<i>golblan</i>	<i>hohop gwen</i>	<i>ensasa gwen</i>	<i>sasmen gwen</i>
DANI	<i>wogoru</i>	<i>kani puge</i>	<i>ambe agabuk wungge</i>	<i>tonggok</i>
DEMISA	---	---	---	<i>jusetëra</i>

Language	191. count	192. dig	193. afraid	194. shy
SAPONI	<i>misikwaifayara</i>	---	<i>ko^uo</i>	<i>mamueⁱf-yawo</i>
RASAWA	<i>bayeya</i>	<i>areaxa</i>	<i>kuß</i>	<i>oxosika</i>
AWERA	<i>nye</i>	<i>kəgri</i>	<i>pwi</i>	<i>osi</i>
WEIRATE	---	---	---	---
DEIRATE	---	---	---	---
TAUSE	---	<i>kawi-do</i>	<i>uraro</i>	---
SEHUDATE	---	---	---	---
FAYU	---	---	---	---
FAIA	---	---	---	---
KIRIKIRI	---	<i>sia</i>	<i>karua</i>	<i>phi karua</i>
EDOPI	<i>aidodi</i>	---	<i>edibali</i>	<i>kowai</i>
IAU	<i>oi i[^]</i>	<i>hui</i>	<i>ima</i>	<i>iau</i>
DUVLE	<i>bæriri</i>	---	<i>keⁱ/ko^u</i>	<i>keⁱ/ko^u</i>
DOUTAI	<i>obia-wa</i>	<i>phi^uja-wa</i>	<i>kweri[^]-jiwa</i>	<i>grapouyu-wa</i>
WARITAI	<i>obiari-wa</i>	<i>phi^utari-wa</i>	<i>kweri[^]-wa</i>	<i>katari-wa</i>
KAI	<i>obia-wa</i>	<i>huju-wa</i>	<i>karuju-wa</i>	<i>akophi^uji-wa</i>
BIRITAI	<i>beida-ka</i>	<i>hua-ka</i>	<i>kecia-ka</i>	<i>aduadada-ka</i>
OBOKUITAI	<i>beig⁷de-kwa</i>	<i>horo-kwa</i>	<i>kwesid⁷-adud⁷-kwa</i>	<i>akuri-edo-kwa</i>
ERITAI	<i>bia-ku</i>	<i>horo-ku</i>	<i>kwasieri-ku</i>	<i>akraido-ku</i>
SIKARITAI	<i>biu-wa</i>	<i>hug⁷ju-a</i>	<i>koodo-a</i>	<i>aketale-wa</i>
KAURE	<i>kakəlangte</i>	<i>kahuli</i>	<i>ho</i>	<i>axlit</i>
BAUZI	<i>de</i>	<i>si</i>	<i>iede</i>	<i>lade</i>
BERIK	<i>eterbili</i>	<i>terbili</i>	<i>erne</i>	<i>sefersona</i>
ORYA	<i>aitbin</i>	<i>triyun</i>	<i>aitin</i>	<i>saher gwer</i>
DANI	<i>eenggi</i> <i>lunggungge</i>	<i>kabungge</i>	<i>agabiti</i>	<i>inikienggali</i>
DEMISA	---	---	---	---

Language	195. cry	196. sing	197. play	198. push
SAPONI	<i>maki-sawo</i>	<i>weti-yawo</i>	<i>fuaⁱ-yawo</i>	<i>firi-yawo</i>
RASAWA	<i>kiza</i>	<i>we:tokoβo</i>	<i>pwayaka</i>	<i>giriya</i>
AWERA	<i>ka:ru</i>	<i>pori</i>	<i>ni</i>	<i>swane</i>
WEIRATE	<i>jero</i>	---	---	---
DEIRATE	<i>ju</i>	---	---	<i>a^uro</i>
TAUSE	<i>uro</i>	<i>dobaro</i>	<i>aro</i>	<i>aururo</i>
SEHUDATE	---	---	---	---
FAYU	---	---	---	---
FAIA	<i>hura</i>	---	---	---
KIRIKIRI	<i>φua</i>	<i>wiakwa</i>	<i>φabia</i>	---
EDOPI	<i>idai</i>	<i>uwalai</i>	<i>kuele</i>	<i>sidotorai</i>
IAU	<i>e</i>	<i>u-o</i>	<i>ao bobi</i>	<i>si tœ-a</i>
DUVLE	<i>zoru</i>	<i>sure pe⁷ra</i>	<i>kiri/kruro</i>	<i>bo^uru bari</i>
DOUTAI	<i>teri[^]-wa</i>	<i>ki[^]erikri[^]diwa</i>	<i>kariji-wa</i>	<i>bowabiwa</i>
WARITAI	<i>teri[^]-wa</i>	<i>oriarikri[^]diwa</i>	<i>karidi-wa</i>	<i>biwabiwa</i>
KAI	<i>togouju-wa</i>	<i>kierikri-wa</i>	<i>pago^uju-wa</i>	<i>bijatoru-wa</i>
BIRITAI	<i>tedu-kwa</i>	<i>keida-ka</i>	<i>haida-ka</i>	<i>bitahai-ka</i>
OBOKUITAI	<i>ire-kwa</i>	<i>kig⁷jeri</i>	<i>karub⁷de-kwa</i>	<i>bohoig⁷-kwa</i>
ERITAI	<i>iro-ku</i>	<i>kijeri</i>	<i>karudo-ku</i>	<i>betakug⁷do-ku</i>
SIKARITAI	<i>poue-wa</i>	<i>dodekuri-wa</i>	<i>kado-a</i>	<i>bid⁷takug⁷jua</i>
KAURE	<i>kung</i>	<i>wari</i>	<i>rua</i>	<i>kotrœ</i>
BAUZI	<i>me</i>	<i>lade</i>	<i>siki</i>	<i>odosu</i>
BERIK	<i>sinar</i>	<i>simaltwora</i>	<i>ugulup gwenar</i>	<i>bæluli</i>
ORYA	<i>gosa gwëm</i>	<i>tærsy-tan</i>	<i>asyas gwen</i>	<i>ata-tan</i>
DANI	<i>li yege</i>	<i>ndawi wake</i>	<i>wulogwe nggilik kungwe</i>	<i>panggonggwi</i>
DEMISA	---	---	---	---

Language	199. pull	200. rub	201. wipe	202. wash
SAPONI	<i>kira^u</i>	<i>kirirao</i>	<i>tirirao</i>	<i>tiriya^u</i>
RASAWA	<i>suβexa</i>	<i>gigixa</i>	<i>bitoxo</i>	<i>sirika</i>
AWERA	<i>sosi</i>	<i>nri:</i>	<i>kyegi</i>	<i>kəgi</i>
WEIRATE	---	---	---	---
DEIRATE	---	<i>uebo</i>	---	---
TAUSE	<i>sakraro</i>	<i>kira</i>	---	<i>era-te-do</i>
SEHUDATE	---	---	---	---
FAYU	---	<i>haio</i>	---	---
FAIA	---	---	---	---
KIRIKIRI	<i>beira</i>	<i>bei^a</i>	<i>φara-de</i>	<i>na-sa</i>
EDOPI	<i>deɬebetɛ</i>	<i>ɔgotorai</i>	<i>suelie</i>	<i>ɔgotorai</i>
IAU	<i>tai</i>	<i>bɛ</i>	<i>sui</i>	<i>da</i>
DUVLE	---	<i>bari/baru</i>	<i>i/u</i>	<i>zari/zaru</i>
DOUTAI	<i>dokri^ji-wa</i>	---	---	<i>wari kriri-wa</i>
WARITAI	<i>tokidi-wa</i>	---	---	<i>wari tɛi-wa</i>
KAI	<i>duguju-wa</i>	---	---	<i>waro kgiri-wa</i>
BIRITAI	<i>dakide-ka</i>	<i>baida-ka</i>	---	<i>batua-ka</i>
OBOKUITAI	<i>dokwɪdɛ-kwa</i>	<i>kikigʻdɛ-kwa</i>	<i>soa-kwa</i>	<i>kikigʻdɛ-kwa</i>
ERITAI	<i>dokurido-ku</i>	---	---	<i>kikiro-ku</i>
SIKARITAI	<i>dokude</i>	---	---	<i>wakre-wa</i>
KAURE	<i>maliau</i>	<i>kasriq</i>	<i>ambauntik</i>	<i>kahatə</i>
BAUZI	<i>vihito</i>	<i>noi</i>	<i>fato</i>	<i>kike</i>
BERIK	<i>dekolui/bafta</i>	---	---	<i>wirtababali</i>
ORYA	<i>il gɪn</i>	<i>bwap-bwap-tan</i>	<i>gle-yul-sun</i>	<i>glæ-tasibin</i>
DANI	<i>iniki ale?</i> <i>nggen mbake</i>	<i>ulinggungge</i>	<i>kooke</i>	<i>kooke lambunogo</i> <i>keele maake</i>
DEMISA	---	---	---	---

Language	203. pinch	204. throw	205. six	206. seven
SAPONI	<i>fuɔyɯwɔ</i>	<i>fiyawɔ</i>	<i>nawarewakila</i>	<i>nawarewakose</i>
RASAWA	<i>kaβiswa</i>	<i>ururo</i>	<i>ta</i>	<i>traice</i>
AWERA	<i>poguswa</i>	<i>kotu</i>	<i>neriaβæ</i>	<i>nre</i>
WEIRATE	---	---	---	---
DEIRATE	---	---	---	---
TAUSE	---	<i>koyaro</i>	---	---
SEHUDATE	---	---	---	---
FAYU	---	<i>gago</i>	---	---
FAIA	---	---	---	---
KIRIKIRI	---	<i>tuyla</i>	---	---
EDOPI	---	<i>tɔrai</i>	<i>kai idu busuwe</i>	<i>kai idu bɔrəbe</i>
IAU	<i>i ki</i>	<i>tœ</i>	<i>ɔi abo e kœ</i> <i>bisi-be</i>	<i>ɔi abo bɔ-be</i>
DUVLE	---	<i>kæ veⁱ/vo^u</i>	<i>zuo bia zuo bia</i>	---
DOUTAI	---	<i>bekebiro</i>	---	---
WARITAI	---	<i>betgi[^]ara</i>	---	---
KAI	---	<i>bituru-wa</i>	---	---
BIRITAI	<i>tui-da-ka</i>	<i>u-da-ka</i>	---	---
OBOKUITAI	---	<i>bitokoro-kwa</i>	2+2+1	2+2+2+1
ERITAI	---	<i>tokoru-ku</i>	---	---
SIKARITAI	---	<i>tueju-a</i>	---	---
KAURE	<i>katrela</i>	<i>kaleke</i>	3+3	---
BAUZI	<i>boa</i>	<i>vɔɔ</i>	<i>au mei vi va</i>	5+2
BERIK	---	---	5+1	5+2
ORYA	<i>etek tan</i>	<i>tak gun</i>	5+1	5+2
DANI	<i>mbuku paku</i> <i>wake eeriyak</i>	<i>yugum nambuke</i>	---	---
DEMISA	---	----	---	---

Language	207. eight	208. nine	209. ten	210. hole
SAPONI	<i>nawarewatuwawo</i>	<i>nawarewa'isero</i>	<i>isere</i>	<i>awore</i>
RASAWA	<i>ta:riβo</i>	<i>taruβo</i>	<i>ize</i>	---
AWERA	<i>niraya</i>	<i>nirorwa</i>	<i>na:rugwræ</i>	---
WEIRATE	---	---	---	---
DEIRATE	---	---	---	---
TAUSE	---	---	---	<i>wayara</i>
SEHUDATE	---	---	---	---
FAYU	---	---	---	---
FAIA	---	---	---	---
KIRIKIRI	---	---	---	<i>kwari</i>
EDOPI	<i>kai idu hoibe</i>	<i>kodadie</i>	<i>kai bərəbei</i>	---
IAU	<i>oi abo baui-be</i>	<i>oi abo bəhai bəhaide</i>	<i>oi φahu ais itoede</i>	<i>a-ka</i>
DUVLE	---	---	---	<i>gora</i>
DOUTAI	---	---	---	<i>φu</i>
WARITAI	---	---	---	<i>φu</i>
KAI	---	---	---	<i>φu</i>
BIRITAI	---	---	---	<i>hu</i>
OBOKUITAI	2+2+2+2	2+2+2+2+1	2+2+2+2+2	<i>abohub⁷</i>
ERITAI	---	---	---	<i>okwehu</i>
SIKARITAI	---	---	---	<i>hugjako</i>
KAURE	---	---	---	---
BAUZI	5+3	5+4	5+5	<i>bumat</i>
BERIK	5+3	5+4	---	<i>mwa</i>
ORYA	5+2+1	5+2+2	5+5	<i>mwa</i>
DANI	---	---	---	---
DEMISA	---	---	---	---

Language	212. flower	213. firewood	214. faeces
SAPONI	<i>uraⁱwire</i>	---	---
RASAWA	---	---	---
AWERA	---	---	---
WEIRATE	---	<i>bo</i>	<i>φa</i>
DEIRATE	---	<i>bo</i>	---
TAUSE	<i>kweta</i>	<i>bo</i>	<i>φa</i>
SEHUDATE	---	<i>bu</i>	<i>φa</i>
FAYU	---	<i>bu</i>	<i>φa</i>
FAIA	---	<i>bo</i>	<i>φa</i>
KIRIKIRI	<i>dura</i>	<i>bo</i>	<i>φa</i>
EDOPI	---	<i>bori</i>	<i>ha</i>
IAU	<i>bε</i>	<i>bœ</i>	<i>φa</i>
DUVLE	---	---	---
DOUTAI	<i>sari</i>	<i>bo</i>	<i>pari</i>
WARITAI	<i>sari</i>	---	<i>su[^]di?</i>
KAI	<i>buka</i> (Indo.)	---	<i>φari</i>
BIRITAI	<i>uado</i>	<i>bo</i>	<i>hoi</i>
OBOKUITAI	<i>ig⁷kuεg⁷do</i>	---	<i>hare</i>
ERITAI	<i>osusai</i>	---	<i>harε</i>
SIKARITAI	<i>asuse</i>	---	<i>pale</i>
KAURE	---	---	---
BAUZI	<i>ava</i>	<i>ziya</i>	<i>haε</i>
BERIK	<i>ese</i>	---	<i>u</i>
ORYA	<i>eis</i>	<i>te syauk</i>	<i>u</i>
DANI	---	---	---
DEMISA	---	---	---

Language	215. urine	216. penis	217. scrotum	218. crooked
SAPONI	---	---	---	---
RASAWA	---	---	---	---
AWERA	---	---	---	---
WEIRATE	<i>ti</i>	---	---	---
DEIRATE	---	<i>atu</i>	<i>akwi</i>	<i>atkwowo</i>
TAUSE	<i>ti</i>	<i>atu</i>	<i>agwi</i>	---
SEHUDATE	<i>ti</i>	<i>ti</i>	<i>kwi</i>	---
FAYU	---	<i>atü</i>	---	---
FAIA	---	<i>su</i>	<i>kwi</i>	---
KIRIKIRI	<i>ti</i>	<i>tu</i> [^]	<i>kwi</i> [^]	<i>bo-ue</i>
EDOPI	---	<i>tura</i>	<i>tou</i>	---
IAU	<i>si</i>	<i>sui</i>	<i>tɛp</i> ^ʔ	<i>bo-bɛ</i>
DUVLE	---	---	---	---
DOUTAI	<i>si</i> [^]	---	---	<i>togoi</i>
WARITAI	<i>ti</i> [^] <i>di</i>	---	---	<i>togwei</i>
KAI	<i>si</i>	---	---	<i>tawei</i>
BIRITAI	<i>tide</i>	<i>a-ki</i>	<i>a-sudo</i>	<i>tueda-ka</i>
OBOKUITAI	<i>sig</i> ^ʔ <i>de</i>	<i>a-tub</i> ^ʔ	<i>a-kwig</i> ^ʔ	<i>tebare</i>
ERITAI	<i>si</i>	---	--	<i>takwiei</i>
SIKARITAI	<i>sig</i> ^ʔ	---	---	<i>tueako</i>
KAURE	---	---	---	---
BAUZI	<i>uak</i>	<i>laso</i>	<i>olohu</i>	<i>fizuhu</i>
BERIK	<i>su</i>	---	---	<i>kækara</i>
ORYA	<i>su</i>	<i>to</i>	<i>sorop</i>	<i>gwagwa-na</i>
DANI	---	---	---	---
DEMISA	---	---	---	---

Language	219. bandicoot	220. a boil	221. cheek	222. chest
SAPONI	---	---	---	---
RASAWA	---	---	---	---
AWERA	---	---	---	---
WEIRATE	---	---	---	---
DEIRATE	<i>φadi</i>	---	---	---
TAUSE	---	<i>səraya</i>	<i>toua</i>	<i>φoyai</i>
SEHUDATE	---	---	---	---
FAYU	---	---	---	---
FALA	---	---	---	---
KIRIKIRI	<i>φari</i>	---	<i>dori</i>	---
EDOPI	---	---	---	---
IAU	---	<i>atai</i>	<i>bi</i>	<i>bi[^]</i>
DUVLE	---	---	---	---
DOUTAI	---	<i>po</i>	<i>daku[^]</i>	<i>gobai[^]</i>
WARITAI	---	<i>sari</i>	<i>raku</i>	<i>kurari</i>
KAI	---	<i>kaboguruko</i>	<i>atakuw</i>	<i>ago^u wasa</i>
BIRITAI	---	<i>tude</i>	<i>a-tohai</i>	<i>a-kohai</i>
OBOKUITAI	<i>herig⁷</i>	<i>duri</i>	<i>a-kwε-kub⁷</i>	<i>a-kobaig⁷</i>
ERITAI	---	<i>duri</i>	<i>okweyakug⁷</i>	<i>otodiakug⁷</i>
SIKARITAI	---	<i>pote</i>	<i>aweaug⁷</i>	<i>outa</i>
KAURE	---	---	---	---
BAUZI	<i>lɔkea</i>	<i>oubule</i>	<i>ode</i>	<i>ahude</i>
BERIK	---	<i>sæsiyu</i>	<i>olbum</i>	<i>danggo</i>
ORYA	---	<i>eikwizim</i>	<i>ibum-nu</i>	<i>dang</i>
DANI	---	---	---	---
DEMISA	---	---	---	---

Language	223. chin	224. eyebrow	225. eyelash	226. forehead
SAPONI	---	---	---	---
RASAWA	---	---	---	---
AWERA	---	---	---	---
WEIRATE	---	---	---	---
DEIRATE	---	---	---	---
TAUSE	<i>kwayi</i>	<i>waya kasu</i>	<i>wayari</i>	<i>taywa</i>
SEHUDATE	---	---	---	---
FAYU	---	---	---	---
FAIA	---	---	---	---
KIRIKIRI	<i>kwawa</i>	---	---	<i>kla-kai</i>
EDOPI	---	---	---	---
IAU	<i>bau i φœ</i>	<i>φœ i^su</i>	<i>φœ su</i>	<i>ma</i>
DUVLE	---	---	---	---
DOUTAI	<i>weku^</i>	<i>wraebgeri</i>	<i>wraekri</i>	<i>bararu</i>
WARITAI	<i>weku^</i>	<i>waruki</i>	<i>waruki</i>	<i>bararu</i>
KAI	<i>awei</i>	<i>awati^akeri</i>	<i>awati^akeri</i>	<i>akataru</i>
BIRITAI	<i>a-tauhai</i>	<i>aru</i>	<i>au-ahai</i>	<i>aihai</i>
OBOKUITAI	<i>a-boub^ari</i>	<i>adu-aki</i>	<i>au-abri</i>	<i>a-kudei</i>
ERITAI	<i>okwebou</i>	<i>oweki</i>	<i>owekri</i>	<i>okutaru</i>
SIKARITAI	<i>aweapit^</i>	<i>apaki</i>	<i>apatig^ alauri</i>	<i>apaug^ta</i>
KAURE	---	---	---	---
BAUZI	<i>odohaozo</i>	<i>aotau</i>	<i>fakotau</i>	<i>dauha</i>
BERIK	<i>olele</i>	<i>nue safa</i>	<i>nue safa</i>	<i>mir</i>
ORYA	<i>ækmuk-nu</i>	<i>nwe-ala</i>	<i>nwe-ala</i>	<i>mire</i>
DANI	---	---	---	---
DEMISA	---	---	---	---

Language	227. heel	228. knee	229. shoulder	230. sweat
SAPONI	---	---	---	---
RASAWA	---	---	---	---
AWERA	---	---	---	---
WEIRATE	---	---	---	---
DEIRATE	---	---	---	---
TAUSE	<i>toiabəri</i>	<i>φogəru</i>	<i>krowi</i>	<i>i^ε</i>
SEHUDATE	---	---	---	---
FAYU	---	<i>ahuta</i>	---	<i>duhu</i>
FAIA	---	---	---	---
KIRIKIRI	<i>toua</i>	<i>φou</i>	<i>dɔφi</i>	<i>i^e</i>
EDOPI	---	<i>soitiri</i>	---	<i>dita?</i>
IAU	<i>ε au</i>	<i>soi</i>	<i>φui</i>	<i>di</i>
DUVLE	---	---	<i>zobira</i>	<i>dua</i>
DOUTAI	<i>doku^</i>	<i>osu^ja</i>	<i>baku^daru</i>	<i>di^wφru^</i>
WARITAI	<i>reku^</i>	<i>ru^da</i>	<i>kaku^daru</i>	<i>baritri^</i>
KAI	<i>a-tou</i>	<i>a-su^a</i>	<i>a-ko^taru</i>	<i>digweri</i>
BIRITAI	<i>a-toyao</i>	<i>a-hutau</i>	<i>a-satadu</i>	<i>soijaka</i>
OBOKUITAI	<i>ato-kub^</i>	<i>a-sua-kub^</i>	<i>ahakub^tarub^</i>	<i>tekia</i>
ERITAI	<i>otoku</i>	<i>osukug</i>	<i>etahu</i>	<i>tekia</i>
SIKARITAI	<i>atog^</i>	<i>asiad^</i>	<i>akaug^</i>	<i>ked^</i>
KAURE	---	---	---	---
BAUZI	<i>usahabu</i>	<i>ouha</i>	<i>giaha</i>	<i>nuhate</i>
BERIK	<i>tof tanamu</i>	<i>samwan</i>	<i>malam</i>	<i>mof</i>
ORYA	<i>tana</i>	<i>bokle</i>	<i>ngiri</i>	<i>irse gwen</i>
DANI	---	---	---	---
DEMISA	---	---	---	---

Language	231. toe	232. vein	233. ant	234. butterfly
SAPONI	---	---	---	---
RASAWA	---	---	---	---
AWERA	---	---	---	---
WEIRATE	---	---	---	---
DEIRATE	---	---	---	---
TAUSE	<i>ato kai</i>	<i>phiwa</i>	<i>sare</i>	---
SEHUDATE	---	---	---	---
FAYU	---	---	<i>kæ</i>	---
FAIA	---	---	---	---
KIRIKIRI	<i>touwa ki^</i>	---	<i>kε</i>	<i>aφaφe</i>
EDOPI	---	---	<i>æ</i>	<i>suapu</i>
IAU	<i>ε-si</i>	<i>tabi</i>	<i>ε</i>	<i>daido</i>
DUVLE	---	---	---	<i>vioyo</i>
DOUTAI	---	<i>teyesi</i>	<i>tagari</i>	<i>wijaku</i>
WARITAI	---	<i>ri</i>	<i>ki^diwei^</i>	<i>wi^taku</i>
KAI	---	<i>a-ti^abəri</i>	<i>tagari</i>	<i>kogoi</i>
BIRITAI	<i>ato</i>	<i>atei</i>	<i>tædu</i>	<i>do</i>
OBOKUTAI	<i>ato-kure</i>	<i>atig^korub^</i>	<i>torub^</i>	<i>ti/kohub^</i>
ERITAI	<i>oto kre</i>	<i>etida</i>	<i>teri</i>	<i>kwahu</i>
SIKARITAI	<i>ato</i>	<i>sad^ at^gid^</i>	<i>kig^</i>	<i>kog^kwet^</i>
KAURE	---	---	---	---
BAUZI	<i>nabasɔ</i>	<i>aliso</i>	<i>ket</i>	<i>fata</i>
BERIK	<i>tambol</i>	<i>tatal</i>	<i>jili</i>	<i>mumwa</i>
ORYA	<i>tana-bola</i>	<i>sa</i>	<i>basglam</i>	<i>mawa aukuk</i>
DANI	---	---	---	---
DEMISA	---	---	---	---

Language	235. gecko	236. crocodile	237. nest	238. spider
SAPONI	---	---	---	---
RASAWA	---	---	---	---
AWERA	---	---	---	---
WEIRATE	---	---	---	---
DERATE	---	---	---	---
TAUSE	---	<i>uru</i>	---	---
SEHUDATE	---	---	---	---
FAYU	---	<i>uru</i>	---	---
FAIA	---	---	---	---
KIRIKIRI	<i>di/kasa</i>	<i>φoi</i>	---	<i>urakwia</i>
EDOPI	---	<i>dau</i>	---	---
IAU	<i>de</i>	<i>lao</i>	<i>œ</i>	<i>obo</i>
DUVLE	---	<i>dara</i>	<i>obre</i>	---
DOUTAI	<i>wija</i>	<i>oru</i>	<i>du-kwari</i>	<i>doba</i>
WARITAI	<i>wi^ta</i>	<i>feita</i>	<i>tu^i^ta</i>	<i>roba</i>
KAI	<i>wi^ja</i>	<i>fei^ja</i>	<i>dikware</i>	<i>kwahau</i>
BIRITAI	<i>ki^</i>	<i>eheja</i>	---	<i>bokwakei</i>
OBOOKITAI	<i>tig^lwei</i>	<i>heig^ya</i>	<i>akwrig^ja</i>	<i>takwi</i>
ERITAI	<i>kwi</i>	<i>heya</i>	<i>okuriya</i>	<i>kwahu</i>
SIKARITAI	<i>ug^ja</i>	<i>peja</i>	<i>auda</i>	<i>kwahog^</i>
KAURE	---	---	---	---
BAUZI	<i>behu</i>	<i>heya/vam</i>	<i>silā</i>	<i>naknahi</i>
BERIK	<i>dænden</i>	<i>wombata</i>	<i>gol</i>	<i>obop</i>
ORYA	<i>derom</i>	<i>jalom</i>	<i>gol</i>	<i>kwaki-kwaki</i>
DANI	---	---	---	---
DEMISA	---	---	---	---

Language	239. ironwood	240. root	241. mud	242. rainbow
SAPONI	---	---	---	---
RASAWA	---	---	---	---
AWERA	---	---	---	---
WEIRATE	---	---	---	---
DEIRATE	---	---	---	---
TAUSE	<i>suri</i>	---	<i>kati</i>	<i>phi</i>
SEHUDATE	---	---	---	---
FAYU	<i>ti</i>	<i>tea</i>	---	---
FAIA	---	---	---	---
KIRIKIRI	<i>di</i>	<i>tu</i>	---	<i>aɸlitai</i>
EDOPI	---	<i>turu</i>	---	<i>keyu</i>
IAU	<i>phi</i>	<i>tui</i>	<i>taoe be</i>	<i>kaebo tae</i>
DUVLE	---	---	---	<i>dai</i>
DOUTAI	<i>du^i</i>	<i>gr</i>	<i>pra-togou</i>	<i>dai</i>
WARITAI	<i>səri^</i>	<i>ri</i>	<i>pra-ku</i>	<i>eri^</i>
KAI	<i>togou</i>	<i>atiferi</i>	<i>i^jeku</i>	<i>kɾesei^a</i>
BIRITAI	<i>hide</i>	<i>ateo</i>	<i>sadudu</i>	<i>teadatu</i>
OBOKUITAI	<i>tokoub^</i>	<i>kwau</i>	<i>kwɛ</i>	<i>deseig^ja</i>
ERITAI	<i>tokug^</i>	<i>etikoru</i>	<i>wɛruku</i>	<i>desikweriwaku</i>
SIKARITAI	<i>toug^</i>	<i>atgid^</i>	<i>ig^jewɛ</i>	<i>klebesig^ja</i>
KAURE	---	---	---	---
BAUZI	<i>fiu</i>	<i>ɔmnao</i>	<i>itabe</i>	<i>bimbɔz</i>
BERIK	<i>titemen</i>	<i>tiskar</i>	<i>betik</i>	<i>manganu</i>
ORYA	<i>te balin</i>	<i>sa</i>	<i>kamablæble</i>	<i>boge alp</i>
DANI	---	---	---	---
DEMISA	---	---	---	---

Language	243. village	244. arrow	245. bow	246. comb
SAPONI	---	---	---	---
RASAWA	---	---	---	---
AWERA	---	---	---	---
WEIRATE	---	---	---	---
DEIRATE	---	---	---	---
TAUSE	---	<i>φoxa</i>	<i>kwa</i>	<i>φri wiaβe</i>
SEHUDATE	---	---	---	---
FAYU	---	<i>φai/φua</i>	<i>φou</i>	---
FAIA	---	---	---	---
KIRIKIRI	<i>ta</i>	<i>φou</i>	<i>φoyoi</i>	<i>dida</i>
EDOPI	---	<i>hou</i>	---	---
IAU	<i>beta</i>	<i>φao</i>	<i>kap'</i>	<i>tau φi</i>
DUVLE	<i>boyoia</i>	---	---	---
DOUTAI	<i>wai ero</i>	<i>su^da</i>	<i>φu</i>	<i>i^de</i>
WARITAI	<i>kiaere</i>	<i>φure</i>	<i>φəga</i>	<i>i^te</i>
KAI	---	<i>keri</i>	<i>φu</i>	<i>titi^</i>
BIRITAI	<i>su</i>	<i>taua</i>	<i>hau</i>	<i>hugudu</i>
OBOKUITAI	<i>kweri-di</i>	<i>hou</i>	<i>hou-akub'</i>	<i>hukru</i>
ERITAI	<i>hi^bakaikoru</i>	<i>hou okohu</i>	<i>hou okure</i>	<i>hokru</i>
SIKARITAI	<i>kwa tepia</i>	<i>huwa</i>	<i>hu</i>	<i>kug'pud'</i>
KAURE	---	---	---	---
BAUZI	<i>num debu</i>	<i>fə</i>	<i>digehi</i>	<i>sis</i>
BERIK	<i>tamnap</i>	<i>gina</i>	<i>ulum</i>	<i>nabalfatar</i>
ORYA	<i>æ</i>	<i>gwe tap</i>	<i>jana</i>	<i>nolhatal</i>
DANI	---	---	---	---
DEMISA	---	---	---	---

Language	247. door	248. drum	249. fence	250. goods
SAPONI	---	---	---	---
RASAWA	---	---	---	---
AWERA	---	---	---	---
WEIRATE	---	---	---	---
DEIRATE	---	---	---	---
TAUSE	<i>kwao</i>	<i>uβi</i>	<i>φau</i>	---
SEHUDATE	---	---	---	---
FAYU	---	---	---	---
FAIA	---	---	---	---
KIRIKIRI	<i>uri</i>	---	---	<i>di</i>
EDOPI	<i>biri</i>	---	---	<i>niri</i>
IAU	<i>be</i>	<i>u tap⁷</i>	<i>dei</i>	<i>di</i>
DUVLE	---	---	---	---
DOUTAI	<i>kwa-boru[^]</i>	<i>ku[^]garu</i>	<i>pori</i>	<i>su</i>
WARITAI	<i>kwa-boru[^]</i>	<i>itowa</i>	<i>səre</i>	<i>tu[^]tari</i>
KAI	<i>kwa-bisoa</i>	<i>kukari</i>	<i>φori</i>	<i>du[^]iφare</i>
BIRITAI	<i>akai</i>	<i>kukadi</i>	<i>horo</i>	<i>su</i>
OBOKUTTAI	<i>kwei-akwe</i>	<i>kub⁷kari</i>	<i>bekikwa</i>	<i>dub⁷</i>
ERITAI	<i>hosikau</i>	<i>kwikari</i>	<i>bekiku</i>	<i>yakasu</i>
SIKARITAI	<i>kwa-hasig⁷</i>	<i>kug⁷kat</i>	<i>esreketako</i>	<i>akasig⁷</i>
KAURE	---	---	---	---
BAUZI	<i>do</i>	<i>bo</i>	<i>na tæhæna</i>	<i>nazoh</i>
BERIK	---	<i>ur</i>	---	<i>jigal-jigala</i>
ORYA	<i>lilkîn</i>	<i>îlî</i>	<i>kol</i>	<i>kire-kire-na</i>
DANI	---	---	---	---
DEMISA	---	---	---	---

Language	251. tomorrow	252. yesterday	253. copulate	254. vulva
SAPONI	---	---	---	---
RASAWA	---	---	---	---
AWERA	---	---	---	---
WEIRATE	---	---	---	---
DEIRATE	---	---	---	---
TAUSE	<i>aβira</i>	<i>dima</i>	---	---
SEHUDATE	---	---	---	---
FAYU	---	---	---	---
FAIA	---	---	<i>haura</i>	<i>hε</i>
KIRIKIRI	<i>du</i>	<i>du</i>	<i>φaura</i>	<i>φε</i>
EDOPI	---	---	---	<i>ha</i>
IAU	<i>la su</i>	<i>du</i>	<i>ao bo du</i>	<i>φε</i>
DUVLE	---	---	---	---
DOUTAI	<i>diako</i>	<i>ki^kakoka</i>	---	---
WARITAI	<i>tia</i>	<i>kei^da</i>	---	---
KAI	<i>kasguko</i>	<i>akei^ε</i>	---	---
BIRITAI	<i>suwado</i>	<i>diao</i>	<i>haded-a-ka</i>	<i>hε</i>
OBOKUITAI	<i>keig^soko</i>	<i>akig^de</i>	<i>baub^'-kwa</i>	<i>hre</i>
ERITAI	<i>keisoko</i>	<i>εkeire</i>	---	---
SIKARITAI	<i>tuod^ko</i>	<i>akejε</i>	---	---
KAURE	---	---	---	---
BAUZI	<i>dihasi</i>	<i>mat</i>	<i>møde</i>	<i>o/øhu</i>
BERIK	<i>gwidmir</i>	<i>ir</i>	---	---
ORYA	<i>ka^an</i>	<i>ir</i>	<i>swi ən</i>	<i>ĩ</i>
DANI	---	---	---	---
DEMISA	---	---	---	---

Language	255. bat	256. canoe	257. breadfruit	258. centipede
SAPONI	---	---	---	---
RASAWA	---	---	---	---
AWERA	---	---	---	---
WEIRATE	---	---	---	---
DEIRATE	---	---	---	---
TAUSE	<i>kovəri</i>	<i>fana</i>	<i>u^ru^</i>	<i>klaɸaru^</i>
SEHUDATE	---	---	---	---
FAYU	<i>egari</i>	<i>fu</i>	<i>kua</i>	<i>oru</i>
FAIA	---	---	---	---
KIRIKIRI	<i>turi</i>	<i>oru</i>	<i>beri</i>	<i>dε</i>
EDOPI	<i>turu</i>	<i>hu</i>	<i>au</i>	<i>næ</i>
IAU	<i>tui</i>	<i>fo</i>	<i>kɔ</i>	<i>i</i>
DUVLE	---	---	---	---
DOUTAI	<i>wi^jaku^</i>	<i>si^</i>	<i>kwa</i>	---
WARITAI	---	---	---	---
KAI	---	---	---	---
BIRITAI	<i>bake</i>	<i>si^</i>	<i>ka</i>	<i>di^hu</i>
OBOKUITAI	<i>beki</i>	<i>sig⁷</i>	<i>kwa</i>	<i>tu</i>
ERITAI	---	---	---	---
SIKARITAI	<i>bosui</i>	<i>sig⁷</i>	<i>kwa</i>	---
KAURE	---	---	---	---
BAUZI	<i>vaa</i>	<i>ihe</i>	<i>kɔhu</i>	<i>tamie</i>
BERIK	---	---	---	---
ORYA	<i>te tek</i>	<i>bul</i>	<i>wanga</i>	<i>ta</i>
DANI	---	---	---	---
DEMISA	---	---	---	---

Language	259. cloth	260. cockroach	261. copula	262. kangaroo
SAPONI	---	---	---	---
RASAWA	---	---	---	---
AWERA	---	---	---	---
WEIRATE	---	---	---	---
DEIRATE	---	---	---	---
TAUSE	<i>bezəwe</i>	<i>si</i>	<i>bei-do</i>	<i>φai</i>
SEHUDATE	---	---	---	---
FAYU	<i>jehe[^]</i>	---	---	<i>kisi</i>
FAIA	---	---	---	---
KIRIKIRI	<i>φezi[^]</i>	<i>irao[^]</i>	<i>mayai</i>	<i>ki[^]si[^]</i>
EDOPI	<i>hesi</i>	<i>atu/huruho</i>	<i>beuri</i>	<i>sari</i>
IAU	<i>sai</i>	<i>fiop⁷</i>	<i>bε</i>	<i>sadi</i>
DUVLE	---	---	---	---
DOUTAI	<i>kebesi</i>	<i>fafou/pati</i>	<i>pai</i>	---
WARITAI	---	---	---	---
KAI	---	---	---	---
BIRITAI	<i>sua</i>	---	---	<i>kisi</i>
OBOKUITAI	<i>hesid</i>	<i>karara</i>	<i>hai</i>	<i>su</i>
ERITAI	---	---	---	---
SIKARITAI	<i>krebesig⁷</i>	<i>fati</i>	<i>braai</i>	<i>kesig⁷</i>
KAURE	---	---	---	---
BAUZI	<i>sue</i>	<i>boi</i>	---	<i>kisi</i>
BERIK	---	---	---	---
ORYA	<i>deyol</i>	<i>sokwen</i>	---	<i>kwaki</i>
DANI	---	---	---	---
DEMISA	---	---	---	---

Language	263. matoa (Indo. tree sp.)	264. stringbag	265. paddle	267. sago
SAPONI	---	---	---	---
RASAWA	---	---	---	---
AWERA	---	---	---	---
WEIRATE	---	---	---	---
DEIRATE	---	---	---	---
TAUSE	---	<i>mba</i>	<i>baria</i>	<i>yeri</i>
SEHUDATE	---	---	---	---
FAYU	<i>jeri</i>	<i>here</i>	<i>ira</i>	<i>fi</i>
FAIA	---	---	---	---
KIRIKIRI	<i>i^i</i>	<i>di</i>	<i>ira</i>	<i>kwei</i>
EDOPI	<i>je</i>	<i>kiri</i>	<i>nta</i>	<i>tu</i>
IAU	<i>sye</i>	<i>si</i>	<i>tui</i>	<i>to</i>
DUVLE	---	---	---	---
DOUTAI	<i>sedi</i>	---	<i>bika</i>	<i>fi</i>
WARITAI	---	---	---	---
KAI	---	---	---	---
BIRITAI	<i>sedi</i>	<i>ti</i>	<i>i^da</i>	<i>suhu</i>
OBOKUTTAI	<i>seri</i>	<i>ti</i>	<i>ida</i>	<i>hi</i>
ERITAI	---	---	---	<i>hi</i>
SIKARITAI	---	<i>si</i>	<i>bika</i>	<i>fi</i>
KAURE	---	---	---	---
BAUZI	<i>sei</i>	<i>dek</i>	<i>vaeme</i>	<i>ti</i>
BERIK	---	---	---	---
ORYA	<i>deiwa</i>	<i>hon</i>	<i>hos</i>	<i>lən</i>
DANI	---	---	---	---
DEMISA	---	---	---	---

APPENDIX 4: LEXICOSTATISTICAL DECISIONS

	Sa	Ra	Aw	We	De	Ta	Se	Fy	Fa	Ki	Ed	Ia	Du	Do	Wa	Ka	Bi	Ob	Er	Si	Kr	Ba	Be	Or	Da	De	
head	1	1	2	0	3	3	4	4	4	4	5	6	7	8	8	9	8	10	10	9	11	12	13	14	15	12	
hair	1	2	3	3	3	3	3	3	3	3	4	5	3	3	3	6	7	7	7	5	9	10	11	12	13	10	
ear	1	2	2	3	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	5	6	7	8	8	9	10	
neck	1	1	1	2	2	3	0	4	2	2	3	3	5	5	0	0	6	6	0	0	7	7	0	8	9	11	
mouth	1	1	1	3	3	3	4	1	5	3	3	3	3	3	3	3	3	3	3	3	4	5	6	7	8	5	
teeth	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3	4	5	5	3	
tongue	1	2	1	3	3	3	4	4	5	5	4	4	4	4	4	4	4	4	4	4	5	2	6	6	7	2	
eye	1	1	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	5	5	6	3	
nose	1	1	1	2	2	2	3	3	3	3	4	4	5	1	1	3	3	3	3	1	3	6	7	7	8	6	
hand	1	2	2	1	1	1	1	3	3	3	1	1	1	1	1	3	1	1	1	1	3	4	3	4	4	5	10
dirty	1	1	1	1	1	1	1	0	0	1	0	2	3	3	3	3	0	3	4	3	5	6	7	8	9	10	
bodyhair	1	2	3	4	4	4	4	0	5	5	0	4	0	5	5	5	5	5	5	5	6	7	8	9	10	7	
elbow	1	2	1	2	2	2	3	3	4	5	6	6	0	7	7	7	7	7	7	7	8	9	10	11	12	9	
finger	1	2	3	4	4	4	5	5	6	6	6	7	6	0	0	0	6	6	7	8	9	10	11	11	12	10	
finger nail	1	1	4	1	1	1	1	1	1	1	1	1	0	2	2	2	2	2	2	1	3	4	4	4	5	4	
skin	1	1	1	2	2	2	2	2	3	3	3	3	4	4	4	5	6	5	5	1	7	8	9	10	11	3	
muscle	2	1	1	1	2	1	1	0	1	1	1	1	1	0	0	0	1	2	0	1	3	2	0	4	5	6	
fat	1	2	2	3	3	0	0	4	4	4	5	5	6	4	7	4	4	4	0	0	8	4	0	9	10	4	
bone	1	1	1	2	2	2	0	0	2	2	2	2	2	3	4	5	1	6	5	7	8	9	10	8	11	12	
breast	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	3	4	3	3	5	6	
stomach	1	1	1	1	1	1	1	1	3	3	3	4	1	1	1	1	1	3	1	1	5	6	7	8	9	6	
lowerback	1	1	2	3	3	3	4	4	5	5	6	7	8	8	9	9	10	11	12	13	14	15	16	17	18	19	
blood	1	2	3	4	4	4	5	5	5	5	6	6	7	7	7	7	8	7	7	7	9	10	11	12	13	14	
heart	1	2	1	3	4	2	5	1	1	1	1	1	6	7	7	7	1	7	7	7	8	9	10	11	12	9	
liver	1	2	1	3	2	0	3	4	5	5	4	4	6	0	0	0	5	5	0	0	7	8	0	9	10	11	
leg	1	1	1	2	3	3	3	3	3	3	3	3	4	5	3	3	3	3	3	6	1	3	7	8	1		
swollen	1	2	3	3	0	0	0	0	0	4	4	4	4	4	0	0	3	3	0	0	5	6	0	7	8	6	
sick	1	2	3	4	4	5	6	7	0	7	7	7	7	8	8	8	9	10	11	11	12	13	14	15	16	17	
water	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2	4	2	5	5	6	2	
lake	1	1	2	3	4	0	4	5	4	5	5	5	6	6	6	6	6	6	6	6	7	8	9	10	11	12	
river	1	2	3	4	0	5	0	0	6	0	0	0	0	0	0	7	8	0	0	7	9	10	0	11	12	0	
sand	1	1	2	3	3	0	0	0	4	4	5	5	6	6	6	7	6	6	6	7	8	9	10	11	12	13	
wet	1	1	2	3	3	3	0	0	0	4	4	4	5	5	4	4	4	4	4	5	6	7	8	8	9	10	
fire	1	1	1	2	2	2	3	3	3	3	3	3	3	3	3	4	3	3	3	3	4	3	5	6	7	3	
cook	1	2	3	3	3	3	0	4	4	4	4	5	5	5	6	4	7	7	7	7	8	7	9	10	11	7	
ash	1	2	1	3	3	3	4	1	4	4	5	5	6	4	7	7	7	7	7	7	8	1	9	9	10	11	
smoke	1	2	3	2	2	2	0	2	2	2	2	2	2	2	2	2	2	2	2	2	3	4	5	6	7	8	
stone	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	4	5	6	7	
heavy	1	1	2	3	3	3	0	0	4	5	6	6	3	3	3	3	3	3	3	3	7	8	9	10	11	8	
slick	1	2	3	0	4	4	0	0	0	5	6	6	7	7	7	7	8	8	8	9	10	11	12	13	14	0	
one	1	1	1	2	2	2	3	3	4	5	6	6	5	7	7	7	7	7	5	7	8	9	10	11	12	13	
two	1	2	3	4	4	4	5	5	6	6	7	7	8	8	8	8	8	8	8	8	9	10	11	12	13	14	
three	1	1	1	2	2	2	3	3	4	5	6	7	5	0	0	0	8	8	0	0	9	10	11	12	13	14	
many	1	1	2	3	3	4	4	5	6	3	7	7	8	9	10	9	10	11	0	0	12	13	0	13	14	15	
few	1	2	3	0	4	0	0	0	0	5	6	7	8	0	0	0	9	10	0	0	11	12	0	13	14	0	
all	1	1	2	3	4	5	0	0	0	6	5	5	5	7	5	5	8	5	5	9	10	5	11	12	13	0	
land	1	1	2	3	3	3	4	4	4	4	3	3	4	4	2	1	4	4	4	1	1	5	6	7	8	5	
dust	1	2	0	0	3	0	0	0	0	0	4	5	0	0	0	0	6	7	0	0	8	9	0	10	11	0	
path	1	2	3	2	2	2	2	2	2	2	2	2	4	2	2	5	2	2	2	2	6	7	8	9	10	11	
narrow	1	2	3	4	0	5	6	0	4	0	7	7	8	9	9	10	7	0	9	9	3	11	12	13	14	15	
wide	1	1	1	2	0	2	3	3	4	0	5	6	1	7	7	8	7	0	7	7	8	9	10	11	12	0	

	Sa	Ra	Aw	We	De	Ta	Se	Fy	Fa	Ki	Ed	Ia	Du	Do	Wa	Ka	Bi	Ob	Er	Si	Kr	Ba	Be	Or	Da	De
mountain	1	1	2	1	3	1	1	1	1	1	4	4	5	5	1	6	7	6	6	8	9	10	11	12	13	14
cloud	1	2	3	2	2	4	4	0	5	4	4	6	6	6	6	6	6	7	7	6	6	8	9	10	11	0
rain	1	2	1	1	1	1	1	1	1	1	1	1	1	1	3	3	1	3	3	4	5	6	7	7	8	6
sky	1	2	3	0	0	4	5	0	6	6	6	6	6	6	6	6	0	7	6	6	8	9	10	11	12	9
fog	1	0	2	3	0	0	0	4	0	0	0	5	0	6	6	6	0	7	6	6	8	9	10	11	12	0
wind	1	2	1	3	3	3	4	4	3	3	4	4	5	5	6	5	7	7	7	5	8	9	10	11	12	2
hot	1	2	1	3	4	4	0	1	5	1	6	6	7	1	1	8	9	11	10	1	11	12	13	14	15	12
cold	1	2	2	3	3	3	4	4	5	6	7	7	8	9	9	9	10	11	12	13	14	15	16	17	18	15
thunder	1	2	3	4	5	6	7	8	9	9	9	9	10	11	11	11	9	11	12	11	13	14	15	16	17	18
lightning	1	2	2	0	0	3	0	0	0	4	5	6	0	7	8	9	10	11	9	9	10	11	12	13	14	15
staff	1	1	2	1	1	0	3	0	4	4	0	1	0	1	1	1	5	1	1	6	7	8	9	9	10	8
straight	1	2	2	0	3	4	0	0	0	5	5	6	5	5	7	8	9	9	10	11	12	13	14	15	16	
thick	1	1	2	0	0	0	0	0	0	0	3	4	0	5	5	5	6	7	8	9	10	11	12	13	14	0
thin	1	2	3	0	0	0	0	4	0	0	5	6	0	7	7	8	9	7	7	7	10	11	12	13	14	0
sharp	1	1	2	0	3	3	4	4	0	0	5	6	7	4	4	4	4	4	4	4	5	6	8	8	9	0
dull	1	1	1	0	0	2	0	3	0	4	4	4	5	5	5	6	5	6	6	7	8	9	10	11	12	0
sun	1	2	3	4	4	4	5	5	4	4	4	5	5	2	2	4	4	4	4	4	5	1	6	7	8	1
midday	1	1	2	0	3	4	0	0	0	5	6	7	8	9	9	9	9	9	9	9	10	11	12	12	13	14
night	1	1	2	3	3	3	4	4	5	4	6	6	7	8	9	10	8	8	10	10	11	12	13	14	15	16
moon	1	1	1	2	2	3	3	2	3	2	2	4	2	2	2	2	2	2	2	5	6	7	8	9	10	7
star	1	2	2	1	1	1	0	1	3	3	3	1	1	4	4	4	5	1	1	6	7	3	7	8	9	0
banana	1	2	3	3	3	3	1	1	3	3	3	1	3	3	3	1	1	1	1	3	4	5	6	6	7	8
garden	1	1	2	3	4	5	0	0	0	0	3	3	6	3	3	3	3	7	8	3	9	3	10	11	12	3
grass	1	2	3	4	3	5	5	5	5	6	6	6	7	8	8	8	5	5	8	8	9	10	11	12	13	10
dry	1	2	3	0	0	4	0	0	0	0	5	5	5	5	5	5	5	5	5	0	6	7	8	9	10	0
mow	1	2	2	3	4	5	6	0	0	7	8	8	3	0	0	0	9	10	0	0	11	12	0	13	14	0
tree	1	1	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	2	1	2	2	3	0
split	1	1	1	2	3	0	4	0	5	5	6	6	7	0	0	0	8	5	0	9	10	11	0	12	13	14
branch	1	2	3	4	4	0	5	0	4	4	4	6	0	0	0	0	4	4	0	0	5	7	0	8	9	10
leaf	1	2	3	4	4	4	5	5	2	2	3	3	6	2	7	8	9	9	9	10	11	12	13	14	15	
thorn	1	1	1	2	2	2	3	2	2	2	2	2	1	2	2	2	3	2	2	2	4	3	5	6	7	3
fruit	1	1	2	3	3	0	0	0	4	4	4	4	2	5	5	5	4	6	6	5	7	8	0	9	10	11
seed	1	1	1	0	2	2	0	0	2	2	3	3	3	4	4	4	4	4	4	4	2	5	6	6	7	0
rotten	1	1	2	3	3	0	4	3	3	3	5	6	7	0	0	0	2	6	0	0	8	9	0	10	11	12
smelly	1	2	3	4	0	5	0	4	4	4	5	5	6	0	0	0	7	8	0	0	9	7	0	10	11	0
forest	1	2	3	4	4	5	6	7	0	8	6	7	6	8	9	8	9	10	10	11	12	13	14	15	16	0
rope	1	2	3	4	4	4	4	5	5	6	7	5	8	5	5	5	5	5	5	9	10	4	11	12	13	14
tie	1	2	3	4	4	4	5	6	6	7	7	0	8	8	9	9	9	9	9	10	9	11	12	13	14	
white	1	2	2	1	3	3	4	4	0	5	6	5	5	5	7	5	8	5	5	5	9	1	10	11	12	1
black	1	1	2	2	2	2	2	0	0	2	3	3	4	2	2	2	2	2	2	2	5	2	6	2	7	2
red	1	2	3	4	4	4	5	5	0	3	6	6	7	8	8	8	8	8	8	8	8	9	10	11	12	8
yellow	1	2	3	0	4	5	0	5	0	6	6	6	7	5	5	8	8	8	8	8	9	8	10	11	12	13
green	1	2	3	0	0	4	0	5	0	4	6	4	4	7	8	9	10	9	9	7	10	11	12	12	13	14
bird	1	2	1	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	4	5	2	6	2	7
egg	1	2	3	4	4	0	5	5	6	6	7	7	7	7	8	8	8	8	8	8	6	8	9	9	8	9
wing	1	1	1	2	3	0	4	0	5	0	6	7	8	8	9	7	0	8	7	9	10	11	12	13	14	15
fly (v)	1	1	1	0	1	2	3	0	0	4	5	6	7	8	8	7	9	10	10	11	12	13	14	15	16	0
cassowary	1	2	2	3	3	3	3	3	3	3	3	3	4	5	0	0	3	5	0	0	5	1	0	6	7	1
fly(n)	1	1	1	2	3	3	0	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	6	5	7	5
mosquito	1	2	1	2	2	2	2	2	2	2	2	2	3	4	2	5	3	6	6	6	7	8	9	9	10	8
dog	1	1	2	3	3	3	3	3	3	3	3	3	4	3	3	3	3	3	3	3	3	5	6	6	7	8
big	1	1	2	3	3	4	5	5	6	6	7	8	9	9	10	9	11	12	13	13	14	15	16	17	18	0
small	1	2	2	3	3	3	4	4	5	6	7	8	9	9	10	11	12	12	12	13	14	15	16	17	18	0
this	1	0	0	0	0	2	0	2	0	3	3	3	0	0	0	0	2	4	0	0	5	2	6	6	7	0

	Sa	Ra	Aw	We	De	Ta	Se	Fy	Fa	Ki	Ed	Ia	Du	Do	Wa	Ka	Bi	Ob	Er	Si	Kr	Ba	Be	Or	Da	De
that	1	0	0	0	0	2	0	0	0	3	4	5	0	0	0	0	6	7	0	0	8	9	10	10	4	0
same	0	1	1	2	2	0	2	2	0	2	2	2	3	4	0	0	2	2	0	0	5	6	0	7	8	0
different	0	1	2	3	4	0	5	5	0	6	7	8	0	6	0	0	6	6	0	0	9	6	0	10	11	0
bite	1	2	3	0	4	4	5	0	0	6	0	6	7	7	7	7	6	7	7	7	8	6	9	10	11	0
tail	1	1	2	1	1	1	1	1	3	3	1	1	4	4	4	1	1	1	1	1	5	6	7	8	9	1
fish	1	2	2	2	2	0	2	3	3	3	3	2	2	2	2	2	2	2	2	2	4	5	6	7	8	9
leech	1	1	1	1	1	1	0	1	1	1	2	1	1	0	0	0	1	1	0	0	3	4	0	4	5	4
louse	1	2	2	2	2	2	2	2	2	3	4	2	2	2	2	2	2	2	2	2	2	4	5	6	7	8
pig	1	2	3	4	4	4	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	6	7	8	9	4
shoot	1	2	3	4	4	0	4	5	4	4	6	6	6	0	0	0	7	4	0	8	9	10	0	11	12	0
worm	1	2	3	0	4	5	0	6	0	5	5	5	6	0	0	0	7	7	0	0	8	9	0	10	11	12
snake	1	1	2	1	1	1	2	2	2	2	3	3	3	2	4	2	1	2	2	5	1	6	7	8	9	10
long	1	1	1	0	2	3	3	3	1	1	3	3	4	3	3	3	3	3	3	3	5	6	7	8	9	0
short	1	2	3	0	0	4	5	0	0	6	7	8	9	10	10	10	10	10	10	10	11	12	13	14	15	0
rat	1	2	1	3	0	4	0	5	5	5	6	7	8	9	10	10	11	11	12	11	13	14	15	16	17	18
full	1	1	1	0	0	2	0	0	0	0	2	2	3	4	4	4	4	4	4	4	2	5	6	7	0	0
house	1	1	1	2	2	2	3	3	3	3	3	4	5	3	3	3	3	3	3	3	6	7	8	9	10	7
new	1	2	3	0	4	5	0	6	0	7	8	8	9	9	9	10	11	9	10	9	12	13	14	15	16	0
old	1	2	3	0	4	5	0	6	0	7	8	8	9	10	9	11	9	9	12	12	13	14	15	16	17	0
thatch	1	2	3	4	4	0	0	0	5	5	6	6	7	0	0	0	4	5	0	0	8	9	0	10	11	12
in front	1	2	3	0	0	0	0	0	0	0	4	4	5	6	6	6	7	8	9	9	10	11	12	13	14	0
outside	1	1	2	0	0	0	0	0	0	0	3	4	5	5	5	6	7	5	5	8	9	10	11	12	13	0
inside	1	2	3	0	0	0	0	4	0	0	5	6	7	7	8	10	11	11	11	11	12	13	14	15	16	0
right	1	2	3	0	0	4	0	0	0	5	0	6	0	7	7	8	9	9	9	10	11	12	13	14	0	0
left	1	2	3	0	0	0	0	0	0	4	0	5	0	6	6	7	8	9	9	10	11	12	13	14	15	0
near	1	1	1	0	2	0	0	3	0	0	4	5	6	7	8	9	10	10	10	10	11	12	13	14	15	0
far	1	1	2	0	3	0	0	4	0	5	6	7	8	8	8	8	9	9	8	8	10	11	12	13	14	0
person	1	1	1	2	2	2	0	1	2	2	2	2	3	2	2	2	2	2	1	1	2	4	5	6	7	4
good	1	1	2	0	3	3	0	4	0	5	6	6	7	7	7	7	8	9	9	10	11	12	13	14	15	0
bad	1	1	1	0	2	2	0	2	0	2	3	2	4	2	2	2	5	5	2	2	6	2	7	8	9	0
male	1	1	1	2	2	3	3	2	2	2	2	4	2	2	2	5	2	2	5	6	7	8	9	10	7	0
female	1	2	1	3	3	3	3	3	0	4	3	3	5	3	6	3	3	3	3	3	3	7	7	8	9	0
husband	1	2	2	3	0	0	0	0	0	4	4	4	4	0	0	0	4	4	0	0	5	6	0	7	8	1
wife	1	2	2	3	4	0	0	5	6	6	7	7	8	0	0	0	7	7	0	0	7	7	0	9	10	11
father	1	1	2	1	3	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	5	6	7
mother	1	1	2	1	1	1	0	3	4	3	5	6	7	2	8	8	8	8	8	8	9	8	9	10	11	12
child	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1
I	1	2	3	4	4	4	0	5	5	5	5	5	5	6	0	0	2	6	0	0	5	2	0	6	5	2
you	2	1	1	2	0	2	0	1	1	1	1	1	3	0	0	0	1	1	0	1	4	3	5	5	6	0
we	1	2	3	4	0	0	0	5	0	0	5	5	4	4	0	0	4	4	0	0	6	5	0	6	7	0
who	1	2	3	4	0	0	0	5	4	4	4	4	4	0	0	0	4	4	0	4	6	7	0	8	4	7
what	1	1	2	0	0	3	0	4	0	5	6	6	7	6	6	6	5	6	6	6	8	4	9	9	10	0
name	1	2	3	4	0	4	5	5	0	5	6	6	6	6	6	7	8	7	9	10	11	12	13	13	14	0
come	1	1	2	3	3	0	3	4	4	4	4	4	4	5	5	5	1	6	6	5	7	8	9	10	11	0
go/walk	1	2	3	4	3	3	3	3	5	5	3	3	3	6	0	0	6	7	0	0	8	3	9	9	10	0
turn	1	2	3	0	4	5	0	0	0	6	7	6	8	0	0	0	9	9	0	0	10	11	0	12	13	0
know s.th.	1	1	2	0	0	0	0	0	0	3	0	4	5	0	0	0	6	6	0	0	7	8	0	9	10	0
hear	1	2	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	3	4	5	5	6	0
see	1	1	2	3	0	3	4	4	1	1	5	5	1	1	1	1	1	1	1	1	6	7	8	9	10	0
search	1	1	1	0	0	2	0	3	4	4	5	5	6	5	5	5	7	5	5	5	8	9	10	11	12	0
talk	1	2	3	4	5	0	0	6	0	7	0	7	7	0	0	0	7	8	0	0	9	10	0	11	12	0
true	1	2	3	0	0	4	0	0	0	5	6	7	7	8	8	8	9	9	10	11	12	13	14	15	16	0
drink	1	1	2	3	3	3	0	0	0	3	3	3	4	5	5	5	5	5	5	5	6	7	8	9	10	0
suck	1	1	1	1	2	3	0	0	0	4	0	1	5	3	3	3	3	3	6	3	7	8	9	10	11	0

	Sa	Ra	Aw	We	De	Ta	Se	Fy	Fa	Ki	Ed	Ia	Du	Do	Wa	Ka	Bi	Ob	Er	Si	Kr	Ba	Be	Or	Da	De
eat	1	1	2	3	3	3	0	3	3	3	3	3	3	0	0	0	3	3	0	0	4	3	0	5	6	0
spit	1	2	2	0	3	3	0	0	0	0	4	4	3	3	3	3	3	3	3	3	5	6	7	8	9	0
vomit	1	1	1	2	3	3	0	1	1	1	1	1	4	1	1	1	5	1	1	1	6	7	8	9	10	0
hit	1	1	2	3	3	4	0	5	6	6	7	7	8	6	6	6	1	9	10	11	12	13	14	15	16	0
stab	0	1	2	3	4	3	0	5	6	6	7	8	0	0	0	0	9	9	0	0	10	2	0	11	12	0
kill	1	2	3	0	4	0	0	0	0	5	6	7	8	0	0	0	9	10	0	5	11	12	0	13	14	0
die	1	1	2	3	0	3	0	4	3	3	3	3	3	5	5	6	3	7	3	3	7	8	9	10	11	0
live	1	1	2	3	0	0	0	0	0	3	4	5	6	7	7	8	9	9	9	9	10	9	11	12	13	0
scrape	1	1	1	2	3	2	0	0	1	1	1	1	0	0	1	1	1	1	1	1	4	5	6	7	8	0
sit	1	1	1	0	2	2	0	3	2	2	4	4	5	6	6	2	2	6	6	7	8	9	10	10	11	0
stand	1	1	1	0	1	1	0	1	1	1	2	2	3	4	2	2	1	2	2	5	6	7	8	9	10	0
no/not	1	2	3	0	4	4	0	4	5	5	4	4	4	4	0	0	4	4	0	4	6	4	0	7	8	0
bathe	1	2	3	0	2	2	0	0	3	3	4	4	5	6	7	7	8	9	3	7	10	11	12	13	14	0
fall	1	2	3	0	4	4	0	0	0	5	5	5	6	7	8	7	8	8	8	7	9	10	11	12	13	0
lay	1	1	2	0	0	0	0	0	0	3	4	3	3	0	0	0	5	3	0	0	6	7	0	8	9	0
sleep	1	0	2	0	3	3	0	3	0	4	4	3	4	5	5	5	5	5	5	5	3	6	7	8	9	0
dream	1	1	1	0	0	0	0	0	0	0	2	3	4	5	5	5	5	5	5	5	6	7	8	9	10	0
grab	1	1	1	0	1	1	0	0	0	2	3	3	4	5	5	5	6	5	5	5	7	8	9	10	11	0
give	1	2	2	0	3	0	0	0	0	4	0	2	2	0	0	0	5	5	0	0	6	7	0	8	9	0
blow	1	1	1	1	1	1	0	2	1	1	1	1	0	1	1	1	1	1	1	3	4	1	5	6	7	0
breathe	1	2	3	0	0	0	0	0	0	4	0	5	3	0	0	0	6	6	0	6	7	8	0	9	10	0
cough	1	2	2	1	1	1	0	0	3	3	1	1	1	1	1	1	1	1	3	4	1	5	6	7	8	5
count	1	2	3	0	0	0	0	0	0	0	4	4	4	4	4	4	4	4	4	4	5	6	7	8	9	0
dig	0	1	2	0	0	3	0	0	0	4	0	5	0	6	6	6	6	6	6	6	7	4	8	9	10	0
afraid	1	1	2	0	0	3	0	4	0	5	6	7	8	8	8	8	8	8	8	9	10	11	12	12	13	0
shy	1	2	2	0	0	0	0	0	0	3	4	5	4	6	7	6	3	7	7	7	8	9	10	10	11	0
cry	1	1	2	3	3	4	0	4	5	5	6	6	7	7	7	7	7	6	6	8	9	10	11	12	13	0
sing	1	1	2	0	0	3	0	0	0	4	4	4	5	6	6	6	6	6	6	7	1	8	9	10	11	0
play	1	1	2	0	0	3	0	0	0	4	5	4	6	6	6	6	6	6	6	6	9	10	11	12	13	0
push	1	1	2	0	3	3	0	0	0	0	4	4	5	5	5	5	5	5	5	5	6	7	8	9	10	0
pull	1	2	3	0	0	4	0	0	0	5	6	7	0	8	8	8	8	8	8	8	9	10	11	12	13	0
rub	1	2	3	0	4	5	0	6	0	6	7	6	6	0	0	0	6	8	0	0	9	3	0	10	11	0
wipe	1	2	3	0	0	0	0	0	0	4	5	5	5	0	0	0	0	5	0	0	6	4	0	7	8	0
wash	1	1	2	0	0	3	0	0	0	4	5	4	6	7	8	7	9	7	7	10	11	7	12	13	14	0
pinch	1	2	3	0	0	0	0	0	0	0	0	4	0	0	0	0	5	0	0	0	6	7	0	8	9	0
throw	1	2	3	0	0	4	0	5	0	6	7	7	8	8	9	10	11	6	6	12	13	14	0	15	16	0
hole	1	0	0	0	0	1	0	0	0	2	0	2	3	4	4	4	4	4	3	5	0	6	7	7	0	0
flower	1	0	0	0	0	2	0	0	0	1	0	3	0	4	0	0	5	6	7	7	0	8	9	10	0	0
firewood	0	0	0	1	1	1	1	1	1	1	1	1	0	1	0	0	1	0	0	0	0	2	0	3	0	2
faeces	0	0	0	1	0	1	1	1	1	1	1	1	0	1	0	1	1	1	1	1	0	1	2	2	0	0
urine	0	0	0	1	0	1	1	0	0	1	0	1	0	1	1	1	1	1	1	1	0	2	3	3	0	0
penis	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	2	1	0	0	0	3	0	1	0	0
scrotum	0	0	0	0	1	1	1	0	1	1	2	2	0	0	0	0	3	1	0	0	0	4	0	5	0	0
crooked	0	0	0	0	1	0	0	0	0	2	0	2	0	3	3	3	3	3	3	3	0	4	5	5	0	0
boil (n)	0	0	0	0	0	1	0	0	0	0	0	2	0	3	4	5	6	7	7	8	0	9	10	11	0	0
cheek	0	0	0	0	0	1	0	0	0	2	0	3	0	4	4	4	5	6	6	6	0	7	8	9	0	0
chest	0	0	0	0	0	1	0	0	0	0	0	2	0	3	4	3	4	4	5	6	0	7	8	8	0	0
chin	0	0	0	0	0	1	0	1	0	1	0	1	0	1	1	1	2	3	1	1	0	4	5	6	0	0
eyebrow	0	0	0	0	0	1	0	0	0	0	0	2	0	3	3	3	4	4	3	3	0	5	6	6	0	0
eyelash	0	0	0	0	0	1	0	0	0	0	0	2	0	3	3	3	4	4	3	3	0	5	6	6	0	0
forehead	0	0	0	0	0	1	0	0	0	2	0	3	0	3	3	4	5	6	6	7	0	8	9	9	0	0
heel	0	0	0	0	0	1	0	0	0	1	0	2	0	1	1	1	1	1	1	1	0	2	3	3	0	0
knee	0	0	0	0	0	1	0	2	0	1	3	3	0	4	4	4	4	4	4	5	0	6	7	8	0	0
shoulder	0	0	0	0	0	1	0	0	0	2	0	2	3	4	4	5	5	5	5	6	0	7	8	9	0	0

	Sa	Ra	Aw	We	De	Ta	Se	Fy	Fa	Ki	Ed	Ia	Du	Do	Wa	Ka	Bi	Ob	Er	Si	Kr	Ba	Be	Or	Da	De
sweat	0	0	0	0	0	1	0	2	0	1	3	3	4	3	5	3	6	7	7	8	0	9	10	11	0	0
toe	0	0	0	0	0	1	0	0	0	1	0	2	0	0	0	0	1	1	1	1	0	3	4	4	0	0
vein	0	0	0	0	0	1	0	0	0	0	0	2	0	3	3	3	3	3	3	4	0	5	6	7	0	0
ant	0	0	0	0	0	1	0	2	0	2	2	2	0	3	2	3	3	3	3	2	0	2	4	5	0	0
butterfly	0	0	0	0	0	0	0	0	0	1	2	3	4	4	4	5	6	7	8	9	0	11	12	13	0	0
gecko	0	0	0	0	0	0	0	0	0	0	0	1	0	2	2	2	3	4	3	5	0	6	7	7	0	0
crocodile	0	0	0	0	0	1	0	1	0	2	3	3	3	1	4	4	4	4	4	4	0	5	6	7	0	0
nest	0	0	0	0	0	0	0	0	0	0	0	1	2	3	3	3	0	3	3	4	0	5	6	6	0	0
spider	0	0	0	0	0	0	0	0	0	1	0	2	0	3	3	4	4	4	4	4	0	5	6	4	0	0
ironwood	0	0	0	0	0	1	0	1	0	1	0	2	0	1	1	3	2	3	3	3	0	2	4	5	0	0
root	0	0	0	0	0	0	0	1	0	2	2	2	0	3	4	4	4	5	4	4	0	6	7	8	0	0
mud	0	0	0	0	0	1	0	0	0	0	0	2	0	2	3	4	5	6	6	4	0	4	7	8	0	0
rainbow	0	0	0	0	0	1	0	0	0	1	2	2	3	3	4	5	6	7	7	5	0	8	9	10	0	0
village	0	0	0	0	0	0	0	0	0	1	0	2	3	4	5	0	6	7	8	9	0	10	11	12	0	0
bow	0	0	0	0	0	1	0	2	0	2	0	3	0	2	2	2	2	2	2	2	0	4	5	6	0	0
arrow	0	0	0	0	0	1	0	1	0	1	1	1	0	2	1	3	1	1	1	1	0	1	4	5	0	0
comb	0	0	0	0	0	1	0	0	0	2	0	1	0	3	3	3	4	4	5	0	6	7	7	0	0	0
door	0	0	0	0	0	1	0	0	0	2	3	3	0	1	1	1	1	1	1	4	0	5	6	0	0	0
drum	0	0	0	0	0	1	0	0	0	0	0	2	0	3	4	3	3	3	3	3	0	5	6	7	0	0
fence	0	0	0	0	0	1	0	0	0	0	0	2	0	3	4	3	3	5	5	4	0	6	0	7	0	0
goods	0	0	0	0	0	0	0	0	0	1	1	1	0	2	2	2	2	2	3	4	0	5	6	7	0	0
tomorrow	0	0	0	0	0	1	0	2	0	3	0	3	0	4	4	5	6	7	7	8	0	4	9	10	0	0
yesterday	0	0	0	0	0	1	0	2	0	3	0	3	0	4	4	4	3	4	4	4	0	5	6	6	0	0
copulate	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	1	1	0	0	0	3	0	4	0	0
vulva	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	1	1	0	0	0	2	0	3	0	0
bat	0	0	0	0	0	1	0	2	0	3	3	3	0	4	0	0	5	5	0	6	0	7	0	8	0	0
canoe	0	0	0	0	0	1	0	1	0	2	1	1	0	3	0	0	3	3	0	3	0	3	0	4	0	0
b'dfruit	0	0	0	0	0	1	0	2	0	3	4	5	0	5	0	0	5	5	0	5	0	5	0	6	0	0
centipede	0	0	0	0	0	1	0	2	0	3	3	4	0	0	0	0	3	5	0	0	0	6	0	7	0	0
cloth	0	0	0	0	0	1	0	1	0	1	1	1	0	1	0	0	1	1	0	1	0	1	0	2	0	0
cockroach	0	0	0	0	0	1	0	0	0	2	3	4	0	4	0	0	0	5	0	6	0	7	0	8	0	0
copula	0	0	0	0	0	1	0	0	0	2	1	1	0	3	0	0	0	3	0	4	0	0	0	0	0	0
kangaroo	0	0	0	0	0	1	0	2	0	2	3	3	0	0	0	0	2	4	0	2	0	4	0	5	0	0
matoa	0	0	0	0	0	0	0	1	0	1	1	1	0	1	0	0	1	1	0	0	0	1	0	2	0	0
stringbag	0	0	0	0	0	1	0	2	0	3	4	3	0	0	0	0	3	3	0	3	0	5	0	6	0	0
paddle	0	0	0	0	0	1	0	2	0	2	2	3	0	4	0	0	2	2	0	4	0	5	0	6	0	0
sago	0	0	0	0	0	1	0	2	0	3	4	4	0	2	0	0	3	2	2	2	0	4	0	5	0	0

REFERENCES

- Bateman, Janet, 1990a, Pragmatic functions of the tone morphemes on illocutionary force particles in Iau. *NUSA* 32:1-28.
 1990b, Iau segmental and tone phonology. *NUSA* 32:29-42.
- Clouse, Duane, 1993, Languages of the Western Lakes Plain. *Irian: Bulletin of Irian Jaya* 21:1-32.
- Clouse, Heljä, n.d.¹, An autosegmental approach to Kirikiri tone (notes). Unpublished manuscript, Summer Institute of Linguistics, Jayapura.
- n.d.², The changing syllable structure of Kirikiri (notes). Unpublished manuscript, Summer Institute of Linguistics, Jayapura.
- Clouse, Heljä and Duane Clouse, 1993, Kirikiri and the Western Lakes Plain languages: selected phonological phenomena. *Language and Linguistics in Melanesia* 24:1-18.

- Edmonson, Jerry**, 1992, Tone contours and tone clusters in Iau. *Berkley Linguistic Society*.
- Foley, William A.**, 1986, *The Papuan languages of New Guinea*. Cambridge: Cambridge University Press.
- Jenison, Scott D. and Priscilla B. Jenison**, 1991a, Obokuitai phonology. In M. Hartzler and L. Wood, eds., *Workpapers in Indonesian languages and cultures*, vol.9, 69-90. Jayapura: Cenderawasih University.
- 1991b, Unpublished research notes, Summer Institute of Linguistics, Jayapura.
- Jones, Larry B.**, 1987, The linguistic situation in the East Cenderawasih Bay, Irian Jaya: a preliminary survey. Unpublished manuscript, Summer Institute of Linguistics, Jayapura.
- Kaye, Jonathan D.**, 1989, *Phonology: a cognitive view*. New Jersey: Lawrence Erlbaum Assoc.
- Kim, Eui-Jung and Yun-Hwa Kim**, 1991, Unpublished research notes, Summer Institute of Linguistics, Jayapura.
- 1995, Edopi phonology. Unpublished manuscript, Summer Institute of Linguistics, Jayapura.
- Kügler, Klaus P.**, 1989, Vowel sequences in Fayu. Unpublished manuscript, Summer Institute of Linguistics, Jayapura.
- 1990, Fayu suprasegmental phonology. Unpublished manuscript, Summer Institute of Linguistics, Jayapura.
- Kügler, Klaus P. and Doris M. Kügler**, 1990, Fayu segmental phonology. Unpublished manuscript, Summer Institute of Linguistics, Jayapura.
- Lichtenberk, Frantisek**, 1994, Reconstructing heterogeneity. *Oceanic Linguistics* 33. 1:1-36.
- Martin, David L.**, 1986, Dominance and non-dominance in Sikaritai discourse. *Papers in New Guinea Linguistics* 25. PL, A-74, 205-231.
- 1991, Sikaritai phonology. In M. Hartzler and L. Wood, eds., *Workpapers in Indonesian languages and cultures*, vol.9, 91-120. Jayapura: Cenderawasih University.
- McAllister, Lawrence and Kay McAllister**, 1991, The process of phonological change in Doutai. In M. Hartzler and L. Wood, eds., *Workpapers in Indonesian languages and cultures*, vol.9, 121-141. Jayapura: Cenderawasih University.
- Murdoch, Charlotte**, n.d.¹, Duvle phonology summary. Unpublished manuscript, Summer Institute of Linguistics, Jayapura.
- n.d.², Duvle grammar. Unpublished manuscript, Summer Institute of Linguistics.
- Munnings, Peter**, 1991a, Tause phonology. Unpublished manuscript, Summer Institute of Linguistics, Jayapura.
- 1991b, Unpublished research notes, Summer Institute of Linguistics, Jayapura.
- Silzer, Peter and Heljä Clouse**, 1991, *Index of Irian Jaya languages, 2nd edition*. Jayapura: University Cenderawasih and Summer Institute of Linguistics.
- Voorhoeve, C.L.**, 1975, Languages of Irian Jaya: checklist, preliminary classification, language maps, wordlists. *PL*, B-31.
- Wurm, S.A. and B. Wilson**, 1975, *English finderlist of reconstructions in Austronesian languages (post-Brandstetter)*. *PL*, C-33.

PIVOT AND NOMINALISATION IN ORYA

PHILIP C. FIELDS

1. INTRODUCTION

The Orya language group is located 140 kilometres west-south-west of Jayapura, the provincial capital of Irian Jaya, Indonesia.¹ There are approximately 1,600 speakers of this non-Austronesian language scattered over some 3,600 square kilometres of tropical rain forest. This paper describes the use of the Orya definite marker *-na* to mark nominals and, more specifically, the way it is used in encoding and decoding the pivot nominal, and the way the same marker is used in nominalisations.

The notion of pivot, as it has been developed by Foley and Van Valin (1984, 1985), is very helpful in explaining variations in core case marking found in Orya, such as is typically seen in subject changes in passive-like constructions. Foley and Van Valin (1984:77) define the core level as consisting of one or two arguments of the predicate (the nucleus), traditionally called the subject and object. In their theory, the properties of what is traditionally called subject are divided between the notions of pivot and actor (1984:124). At this point, it might help some readers to think of the pivot as the surface subject.

Pivot is defined as the *noun phrase that the clause is about*. The pivot is always one of the core arguments of the predicate, typically the actor or undergoer (1984:110, 134). A few languages which allow the dative to become a core argument of the predicate (as shown by affixation on the verb) also allow that nominal to become the pivot (Foley & Van Valin 1985:311). Passive and antipassive constructions of other languages exist to make the noun phrase which is normally not the pivot into the pivot (1984:111).

The notion of pivot is not the same as the notion of topic (and more is said about this in §2.2), since topics need not be core arguments of the verb. Topics are not necessarily involved in passive constructions, but pivots are. Topics are not necessarily the controller or

¹ The Orya language is part of the Tor-Lake Plain Stock (Silzer & Clouse 1991:29, 71). The language most closely related to Orya is Berik. The author has been working with the Orya people since June 1984. Grateful acknowledgment is given here to the many Orya who have taught me their language, and especially to Hans Tenani, who worked closely with me in the preparation of this paper. The patient help of Alan Healey was also invaluable. The author's research of the Orya language was carried out under the auspices of the cooperative program of the Summer Institute of Linguistics and the University of Cenderawasih.

target of noun phrase ellipsis in multiclausal constructions, but pivots are (Foley & Van Valin 1984:134; 1985:299-305, 355-358). The notion of pivot is also distinct from focus, since the pivot must be a core noun phrase, while a focused element need not be, although the pivot does share some of the discourse properties of focus.

1.1 ABBREVIATIONS USED IN THIS PAPER

=	equals	LIVE	the <i>gwe</i> verb class marker set signalling the operators DO and/or BECOME, present in activity and achievement verbs. See Appendix B.3.
Ø	zero representation	LOC	Location
1, 2, 3	first, second, third person	M	masculine gender
A	verbal affixes for actor number and actor gender	MAN	Manner
ABL	Ablative	NT	Nontemporal marker
ALL	Allative case marker	OF	Orya descriptor particle <i>de</i>
AUX	verb auxiliary	P	Past tense
CAUSE	the operator CAUSE present in accomplishment verbs. See Appendix B.3.	PL	plural
COMPL	completive aspect	PLSR	Pluraliser
DAT	Dative case marker/verbal suffixes for dative number/gender	POS	Possessive
DEF	Definite marker	PRES	Present tense
DEF	the definite marker <i>-na</i> .	PUNCT	Punctiliar aspect
DIS	Dislocation	PURP	Purpose
DU	dual	PVT	pivot
DUR	Durative aspect	REC	Recent
EMPH	Emphasis	REDUP	Reduplication
EXCL	exclusive	REL	Relativiser
F	feminine gender	REPET	Repetitive aspect
FUT	future tense	SG	singular
HABIT	Habitual aspect	TAKE-	'TAKE-' causative prefix
IMP	Imperative	U	Undergoer NP marker/verbal affixes for undergoer number/gender
INCL	inclusive		
INTER	Interrogative		

2. THE ORYA PIVOT

2.1 THE ROLE OF THE PIVOT IN PASSIVE-LIKE CONSTRUCTIONS

Orya is a nominative-accusative language and is typical of Papuan languages in that core nominals, the actor and undergoer, are encoded in verb morphology (Foley 1986:96). Orya is also a member of a subset of Papuan languages "in which the dative nominals are

assimilated to the class of core relations and are indicated by verbal affixes" (Foley 1986:96). Thus gender and number are marked suffixially in the Orya verb for actor, undergoer, and dative. A full list of these suffixes appears in Appendix B. Case markers (explained in the text below) are also used to mark the undergoer and dative nominals. The dative nominal and all peripheral case nominals are marked by postpositions in Orya.

The choice of the pivot in Orya does not change verb agreement. Verb agreement is sensitive only to the three semantic core case roles of actor, undergoer, and dative. Morphological core case marking is sensitive to the surface syntax, including what noun phrase is pivot. When the undergoer nominal is not the pivot, it is marked by the enclitic *-sa*. The pivot of the clause is the only nominal that may be completely unmarked, or marked in several ways using the definite marker *-na*. (The complex relationship between *-na* and the pivot will be explained in §2.5.) Complicating this is the fact that both the actor and undergoer nominals, that is, the pivot and the other core nonpivot nominal, may be altogether absent from long stretches of a discourse. Although Orya is basically an SOV language, the position of Orya noun phrase elements in the core level is relatively free. The pivot is frequently the first, but may be the second noun phrase and almost always precedes the predicate, unless it is added at the end of a sentence as an afterthought. The most frequent position for the predicate is after the second or third noun phrase, and it is never first in a sentence, unless it is a response sentence. Semantic roles of actor, undergoer and dative are largely irrelevant in determining relative position within the core.

Before proceeding with examples, a note on Orya orthography will be helpful. Orya is pronounced with penultimate stress, and the orthography closely matches a phonetic representation. The vowels *ë* and *ĩ* are phonetically [æ] and [i]. The glottal stop is written as an apostrophe. As shown in Appendix B, the Orya verb consists of an auxiliary and a verb complex. The auxiliary is often separated from the verb by one or more noun phrases. The verb complex is phonologically one word, but spaces are used in the orthography preceding the verb class marker and directionals longer than one syllable. The verb class marker and directionals will nevertheless be referred to as suffixes in this paper. There is a correspondence between Orya verb class markers and Foley and Van Valin's operators BECOME, DO, and CAUSE, briefly described in Appendix B.3. BECOME and DO actually share one marker in Orya, glossed in this paper as LIVE.

Examples (1) and (2) show the typical alternation of pivot in Orya passive-like constructions:

- (1) **Ano** **bian-na** *te ala-sa* *Lukas hap lop*
my father-DEF money-U Lukas DAT take.U.PL

ta-bla-k-a.

A.SG.CAUSE.U.PL-DAT.SG.M-P-A.M

My father gave money to Lukas.

(In all of §2, the pivot noun phrase will be boldfaced in the Orya and in the free translation.)

In Orya, the difference between 'give' and 'take' is signalled by the presence of the dative suffix. In example (1), the verb 'give/take' is one of a number of suppletive verbs that will be seen in this paper. *Lop* indicates that the objects being 'given' are plural. (A male object given would be *zer-*, female object *gol-*, and a dual object *tesya-*. The plural form *lop* is the only one of these that must be followed by the causative verb class marker.) This verb is typical of all Orya verbs in that the actor number and actor gender morphemes are widely

separated by other suffixes, including dative number/gender (*-bla* above) and tense/aspect. The undergoer is marked by the enclitic *-sa*, and the dative by the postposition *hap*. The pivot is marked by *-na* in (1), but would not have to be. If the actor were simply named 'father', without the possessive 'my', or a proper name, the definite marker *-na* would not have been used, but the actor would still have been the pivot by default. An undergoer marked with *-sa* cannot be the pivot.

The undergoer is the pivot in (2).

- (2) *Te ala-na lop ta-bla-k-a*
 money-DEF take.U.PL A.SG.CAUSE.U.PL-DAT.SG.M-P-A.M
 (ano bian) (Lukas hap).
 (my father) (Lukas DAT)
Money was given to him (Lukas) (by my father).
 (Text in parentheses in this example may be added in the order given or preceding the verb.)

As elsewhere in this paper, the free translation above has been made passive in order to reflect that the Orya construction is passive-like. This helps to show that *te ala* 'money, tree leaves' is what this sentence is about. Foley and Van Valin (1985:303), would not classify this as a true passive, since the predicate in example (2) is exactly as it was in (1), and there are no added auxiliaries.² It is not so important here that, like passives in other languages, the actor, dative and other nominals may be dropped from (2). If those nominals were clear in the context, they could be dropped in (1) as well, since the verb is fully inflected. The important difference is that the nominal that was marked as undergoer in (1) has become the pivot, or has been foregrounded, in (2). Note also that the definite marker replaces the undergoer marker *-sa*.

2.2 THE ORYA PIVOT COMPARED TO TOPIC

As stated earlier, the notion of pivot is distinct from topic as defined by Foley and Van Valin. One primary difference is that pivot is restricted to core elements – for most languages only actor and undergoer, while topic can be any noun phrase element, and can be signalled in a number of ways, one of which is shown in (3).

- (3) *Te ala-na in-kam, ki zep totore kire-kire karek-na*
 money-DEF that-INSTR and then any.old things bad-DEF
lop ta-k-a.
 take.U.PL A.SG.CAUSE.U.PL-P-A.M
 And then with that money, **worthless and frivolous things** were bought
 (by him).

The topic of example (3) is the left-dislocated instrument 'that money'. It precedes the clause introducers and is separated by a pause. The pivot of the sentence is the undergoer, the

²

Keenan (1985:250-261) distinguishes two broad types of passives. Strict morphological passives use affixation on the predicate, and periphrastic passives use auxiliaries. Orya does not fit into either category.

'worthless and frivolous things'. Thus topic and pivot in Orya, although there is overlap in the discourse processes which influence them, are signalled by different structures.³

2.3 THE ROLE OF THE PIVOT IN ELLIPSIS OF NOUN PHRASES

The Orya pivot is classified as a 'pragmatic pivot' (Foley & Van Valin 1984:115), which means that discourse features such as topicality (1984:134), "coreference, definiteness, and givenness are involved in the determination of the syntactic status of the arguments of the verb within a clause...pragmatic pivots represent the *syntacticization* of these discourse factors in clause-internal grammar" (1984:115, 123, 134). Languages with pragmatic pivots are termed 'reference dominated'. Instead of a pragmatic pivot, other languages are 'role dominated' having 'semantic pivots' or no pivots at all (1984:123). In those languages the pivot selection is completely predetermined by semantic roles (1984:117).

It is clear that Orya has a pragmatic pivot because the pivot may be either the actor or undergoer. One grammatical property of the pivot is that it is the controller of noun phrase ellipsis between coordinate clauses (Foley & Van Valin 1985:306-307). Consider the following examples:

- (4) ¹*Oskar* *toko san song gwe-k-a,*
 Oscar store ALL go A.SG.LIVE-P-A.M
- ²*hwēna ki zep zē boton da-'a-k,*
 however and then there false A.PL.CAUSE.U.SG.M-PUNCT-P
- ³*"Eno buku-na mes jekjak gwe-k-Ø."*
 your book-DEF P.AUX disappear A.SG.LIVE-P-A.F
- ¹*Oscar* went to the store, ²but then was lied to ³that his book had disappeared.

In the first clause of example (4), 'Oscar', the only core nominal, is the actor pivot. But in the second clause, 'Oscar' is the implicit undergoer and is still the pivot. When the actor is not known, irrelevant, or purposefully omitted from the discourse, the Orya use this passive-like structure where the pivot becomes the undergoer and the verb is marked as having plural

³ As will be seen in the course of this paper, pivot-signalling devices in Orya help to identify recurrent referents in the discourse. This would be called anaphoric referential processing of the topic by Givón. When speaking of topic as it relates to case roles on the clause level, Givón's (1990:901) notion of topicality is much like the notion of pivot. He states that "most languages code only *three* levels of topicality within the clause...SUBJECT > DIRECT OBJECT > OTHERS". Givón (1990:902, 740) seems to agree with Foley and Van Valin when he states: "Coherent discourse is thus characterized by **equi-topic clause-chains**. And 'topic' is a relevant functional notion only at the discourse level, minimally at the chain or paragraph level". Givón (1990:902) somewhat misrepresents Foley and Van Valin by claiming that they are among those that hold "that 'topic' is a *clause-level* function", whereas Foley and Van Valin (1984:134) clearly state that "Topics are structurally quite distinct from pivots and have different grammatical properties. In particular, they are external to the clause..." On the other hand, it is somewhat confusing that Foley and Van Valin do state earlier in the same paragraph that "Pivots are syntactic in nature...and a pragmatic pivot is a *syntacticization* of certain discourse relations, one of which is topicality, in the internal structure of the clause". The bottom line is that pivot (but not by that name) is included on the lowest level of all that Givón calls topic, and Foley and Van Valin agree that discourse topicality does play a role in pragmatic pivot selection on the clause level. It seems to me that the notion of topic becomes too broad if it is stretched to include clause level through broad discourse level phenomena, and we would be better off with the separate term of pivot for the clause level, as this would help us to differentiate between the various discourse processes pertaining to pivot versus topic.

actors. A sentence corresponding to an active sentence would specify an actor pivot in the second clause, as in (5).

- (5) ¹...²*hwēna ki zep zē zī-nī boton*
 however and then there man-DEF false
ta-'an-k-a, ³...
 A.SG.CAUSE.U.SG.M-PUNCT-P-A.M
 [¹Oscar went to the store,] ²but then a man lied to him there [³that his book
 had disappeared.]⁴

In example (5), 'Oscar', the pivot of the first clause, is no longer the pivot of the second clause, because an actor pivot has been supplied. Note, however, that if the actor 'man' were left out of the sentence, it would mean that 'Oscar' went to the store and ('Oscar') lied. (In this case, the sentence would imply that there was shared knowledge in the context concerning what store and who he was likely to lie to there.) So then, the basic rule for interpreting ellipsis of noun phrases in Orya coordinate clauses is that, if the gender or number marked in the verb do not indicate otherwise, the actor pivot of subsequent clauses will be coreferential with the actor pivot of the first clause. If there is a shift in actor gender or number in the verb of clause 2 such that the undergoer affix can only agree with the pivot of clause 1, and if no actor pivot is specified, then the participant who is actor pivot of clause 1 has become the undergoer pivot of clause 2, as in example (4). This use of coreferentiality to identify the shifting roles of the pivot demonstrates that Orya has what is termed a 'pragmatic pivot'.

2.4 WHAT CASE ROLES MAY BE PIVOT?

Thus far, it is evident that in Orya both core roles of actor and undergoer may become pivot. It was also stated before that dative case is assimilated into the Orya core level, because dative gender and number are marked in the predicate. Because of this, it would be reasonable to suppose that dative might also be able to become pivot in Orya, as it can in some languages (Foley & Van Valin 1985:311). One way to test this is to see if a pivot of a matrix clause may be coreferential with an implicit dative of a relative clause that has no explicit pivot. Compare these examples:

- (6) ¹*Buku-na* ²*men-sa* *gol-bwa-k-a*
 book-DEF REL-U A.SG.take.U.F-DAT.SG.M-P-A.M
walas tol-a in hap ¹*mes* *jekjak* *gwe-k-Ø*
 child small-DEF that DAT P.AUX disappear A.SG.LIVE-P-A.F
¹The book ²which was given to the small child (by a male) ¹has disappeared.
 (The relativiser *men* is followed by the undergoer marker *-sa* to show that shared the nominal 'book' is the undergoer of the relative clause.)
- (7) *¹*Walas-na* ²*men zēbe hap* *gol-bwa-k-a*
 child-DEF REL 3DAT DAT A.SG.take.U.F-DAT.SG.M-P-A.M

4

Note here that the *-na* suffix is affected by vowel harmony. In later examples, the /n/ of the *-na* suffix is deleted following /l/, and *we-na* becomes *we-nya*. Phonological rules for vowel harmony and epenthesis are in Fields (1991a). Most further phonological changes will not be mentioned, and morphemes discussed in the text will be cited only in their underlying forms.

¹*mes* *gol-jekjak* *gwe-k-a*.

P.AUX TAKE-disappear A.SG.LIVE-P-A.M

*¹The child ²to whom (it) was given ¹has disappeared with it.

(The relativiser *men* is followed by a pronoun that signals that the shared nominal is the third person dative in the relative clause.)

In example (6), the pivot of the matrix clause 'the book...has disappeared' is the actor/theme 'book',⁵ and 'book' is also the undergoer pivot of the relative clause. If similar pivot-sharing could be managed in Orya, where the pivot of the matrix clause was coreferential with an implicit dative in the relative clause, this might show that dative nominals could become pivot. This is what was attempted in (7), but the result is ungrammatical. The pivot of the matrix clause is the actor *walasna* 'the child', but this nominal cannot remain as pivot in a relative clause where it would be the dative, even though dative is marked in the verb and the relative clause is correctly flagged to be modifying a dative nominal, as (8) shows.

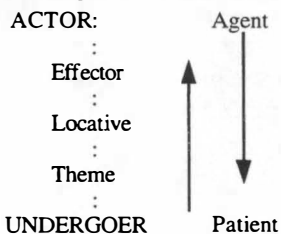
- (8) ^{1...2}*men zēbe hap buku-na gol-bwa-k-a* ¹
 REL 3DAT DAT book-DEF A.SG.take.U.F-DAT.SG.M-P-A.M
¹[The child] ²to whom the book was given [¹has disappeared with it.]

Example (8) is grammatical because a separate pivot for the relative clause, the undergoer 'book', has been supplied. Thus Orya, unlike a few languages (Foley & Van Valin 1985:311), does not allow the dative to be pivot even though there is dative affixation in the predicate. Orya case-marking structure does not allow for this. Since dative cannot become pivot, it is not surprising that similar tests to make peripheral noun phrases, such as location or allative, into the pivot also fail in Orya. The Orya pivot is restricted to actor and undergoer.

2.5 ENCODING AND DECODING THE PIVOT

For ease of presentation, most of the previous examples have included one nominal marked with the definite marker *-na*. The *-na* does not indicate the pivot, but it does increase the likelihood of the nominal being the pivot. The definite marker may be absent in some clauses, and as shown below, it may occur more than once in others. The encoding and decoding of the pivot is sensitive to a combination of semantic and discourse features represented in the hierarchy and rules below:

⁵ Both macroroles of Actor and Undergoer, as defined by Foley and Van Valin (1984:30, 59), take on a variety of specific roles as shown in their Actor/Undergoer Hierarchy:



Hierarchy of Orya pivots:

Definite > Deictic/Descriptive > Nondefinite

Definitions:

A definite noun phrase is defined as one marked with the definite marker *-na* and not modified by a deictic. Personal pronouns and personal names, which are never marked with *-na*, are also definite.

Deictic/descriptive noun phrases include noun + *-na* + deictic, a noun modified by adjective(s), possessed kin, and a description phrase plus nominal (discussed in §3.3). All of the above may be actor or undergoer, and when they are undergoers, they are marked with *-sa*. There are also two other ways to mark deictic undergoers: *-na-ka* and *-na desa*. In all deictic/descriptive noun phrases, the definite marker is obligatorily used, as will be explained at the end of this section.

A participant that is referred to only in verbal affixes is nondefinite, as is a non-human participant represented by a noun without *-na*.

Rules:

The actor is the normal choice for pivot unless the undergoer is given a higher status on the hierarchy. (An nondefinite actor is pivot unless the undergoer is deictic/descriptive or definite. A deictic/descriptive actor is pivot unless the undergoer is definite.)

It is ungrammatical for both the actor and undergoer to be definite.

An explicitly expressed undergoer nominal must be marked with *-sa* unless it is marked with the definite marker *-na*. If it is marked with *-na* alone, it is a definite undergoer pivot, and the actor must be placed lower on the hierarchy (deictic/descriptive or nondefinite). Undergoers marked with *-na-ka* or *-na desa* may be superseded by a definite actor nominal. Undergoer nominals cannot be marked *-na-sa*.

Within this system, the Orya speaker has great flexibility in placing the actor or undergoer on the hierarchy – being influenced by a variety of discourse considerations. The dynamics of the hierarchy are easier to grasp when seen in a series of similar sentences. We will start at the right-hand end of the hierarchy with nondefinite nominals.

- (9) *Otol dan-sa dwin-bi-'in mawa.*

banyan nuts-U A.PL.eat-DAT.F-PRES birds

Birds are eating banyan tree nuts.

(The verb 'eat' is one of a class of irregular verbs which take dative markers for what is semantically the undergoer. The feminine dative=undergoer marker stands for the collective banyan nuts. Living collectives are often marked as female, and nonliving collectives, such as sand or rice, are generally marked as male.)

Neither noun phrase in example (9) is marked with *-na*. A small degree of highlighting has been given to 'banyan nuts', the undergoer, by positioning it first and placing the actor last. However, an undergoer marked with *-sa* cannot be the pivot. The actor, in spite of placement, is the pivot. Alternatively, the actor could be placed before the predicate, as in (10):

- (10) *Otol dan-sa mawa-na dwin-bi-'in.*
 banyan nuts-U birds-DEF A.PL.eat-DAT.F-PRES
The birds are eating banyan nuts.

The actor in example (10) is now definite and thus has been clearly specified as the pivot and has been placed in a more normal position before the predicate. Orya speakers indicate that (9) might be uttered in the forest where a person would point out what he has noticed to a companion. It is a quick description of the state of affairs. Sentence (10) would be used to report the finding in the village. In such a context, 'birds' might be highlighted because the people would be interested in setting up bird blinds to hunt for them.

- (11) *Otol dan-na mawa dwen gwi-bi-rin.*
 banyan nuts-DEF birds A.PL.eat REPET-DAT.F-REC
Banyan nuts are often eaten by birds.

Sentence (11) is from a different discourse concerning interesting facts about banyan trees. When 'banyan nuts' become the topic of a sentence or two, that nominal is likely to be chosen as pivot, and the verb is changed to habitual or repetitive aspect. If the verb were still present tense, the sentence would be ungrammatical. This is because present tense would not make sense unless a definite or observable group of 'banyan nuts' were being eaten, as in (12):

- (12) *Otol dan-na in-sa dwin-bi-'in mawa.*
 banyan nuts-DEF those-U A.PL.eat-DAT.F-PRES birds
Those banyan nuts are being eaten by birds.

The undergoer in example (12) is now deictic, being marked by *-na* + deictic + *-sa*. The deictic undergoer takes precedence over the nondefinite actor on the hierarchy, and is pivot even if the actor nominal is positioned before the predicate or first in the sentence.

- (13) *Otol dan-na in-sa mawa-na dwin-bi-'in.*
 banyan nuts-DEF those-U birds-DEF A.PL.eat-DAT.F-PRES
The birds are eating those banyan nuts.

The context of example (13) is in the forest, observing a particular species of birds and a particular tree. Since the actor is marked with *-na* alone, it now ranks at the top of the hierarchy for pivot. The undergoer is deictic, second place on the hierarchy. It is rare in Orya discourse that both the actor and the undergoer are brought into focus in this way.

- (14) *Otol dan-na ki mawa-na in dwen gwi-bi-rin.*
 banyan nuts-DEF indeed birds-DEF those A.PL.eat REPET-DAT.F-REC
Banyan nuts are indeed eaten by that kind of bird.
 (The two noun phrases in this sentence may be reversed.)

In example (14), the conversation has been about banyan trees and the birds that come to feed from them have been listed. In such a context it is possible for the actor (those birds previously listed) to be deictic, thereby taking the second place on the hierarchy, and for the undergoer (since it is topical) to be marked explicitly as definite. In other words, *-na* alone, signalling the speaker's choice of pivot, is higher on the hierarchy than *-na* plus a deictic. Evidence for this is the fact that, in Orya, deictics must be joined to noun phrases by *-na*. The *-na* morpheme is obligatory, and consequently somewhat semantically bleached, whenever a deictic is used. Also, *-na* plus deictic may be followed by *-sa* as in (13) and (12), meaning that the definite noun phrase is the undergoer; while *-na* and *-sa* may never occur on the same

noun phrase without an intervening deictic. Therefore it is clear, in sentences like (13), that *-na* alone ranks higher than definite noun phrases (*-na* plus deictic) in the hierarchy of Orya pivots, no matter whether the pivot be actor or undergoer. It should also be noted that while only core roles of actor and undergoer can be marked with *-na* alone, peripheral noun phrases expressing any semantic role, such as location or instrument, can be made definite with the addition of *-na* plus a deictic.

- (15) *Ki zep song gwe-k-Ø toko-na in san.*
 and then go A.SG.LIVE-P-A.F store-DEF that ALL
 And then **she** went to that store.

Sentence (15) is ungrammatical without the deictic. A peripheral noun phrase as in (15) may be definite, *toko-na in san*, or indefinite, *toko san*, but may never be a 'marked' noun phrase, **toko-na san*. Thus there is a clear distinction between deictic/descriptive and definite noun phrases on the hierarchy of pivots and in grammatical usage, even though both include the suffix *-na*.

The list below summarises the various combinations of nondefinite, deictic, and definite nominals as they have been illustrated in examples (9) to (14). The pivot of each combination is in boldface.

A	U- <i>sa</i>
A- <i>na</i>	U- <i>sa</i>
A	U-<i>na</i>
A	U-<i>na</i> deictic-<i>sa</i>
A- <i>na</i>	U- <i>na</i> deictic- <i>sa</i>
A- <i>na</i> deictic	U-<i>na</i>

Two additional methods of indicating deictic undergoers using the definite marker need to be shown to complete this section:

A	U-<i>na</i> <i>desa</i>
A	U-<i>na</i>-<i>ka</i>

The first of these is one of the primary means that temporary participants or props are introduced into a narrative. As we will see in §2.7, once a participant's identity is established, his name will not be frequently stated. A participant who is no longer named but is present only in verbal affixes is demoted to nondefinite status, allowing the possibility of other participants being made more prominent by being marked definite or deictic/descriptive. Orya discourse uses the definite marker to introduce new participants, and the determiner *desa* may be used to show that the new participant is an undergoer that will soon be backgrounded. A second way of marking undergoers is by a deictic which points backward to a definite nominal or pivot in the immediate context and is often used as a partitive to indicate such things as 'one of them' or 'part of it'.

- (16) ¹*Gwe-nya desa zë-k ta-k-a,*
 pig-DEF that.U there-LOC A.SG.kill.U.SG.M-P-A.M
²*ngala en-na-ka an-bla-in-k-i,*
 intestines only-DEF-U.deictic extract-DAT.SG.M-out.of-P-A.SG.M

³*desa bahla so-k-a.*

that.U wrap.to.carry A.SG.CAUSE.U.DU-P-A.M

¹(He) killed a (wild) pig there, ²cut out its intestines only, ³and bundled (and) carried them (hanging behind him from his shoulders).

(This sentence is like passive also, but this is difficult to show in the English free translation while still maintaining the coordinate structure.)

Example (16) illustrates the way Orya discourse often omits actor nominals, allowing undergoers to be temporarily foregrounded. The 'pig' is introduced in the first clause as a temporary participant by being marked with the definite marker followed by *desa*. The second clause of (16) illustrates the use of the partitive undergoer suffix *-ka*. As a diectic, it refers back to the 'pig' of the first clause. While the normal undergoer enclitic *-sa* can never be attached directly onto the definite marker, noun-*na-ka* is often used. The partitive *-ka* is the only suffix that can be added to the definite marker *-na*, and *-ka* can never attach directly to a noun. *Desa* is used again in the third phrase, but with a different meaning than it has in the first phrase. When *desa* does not immediately follow a newly introduced participant, it shows that 'the previous undergoer is now the nonpivot undergoer.' This meaning of *desa* can also be seen in example (22).

2.6 THE PIVOT AND THE PRONOMINAL PARTICIPANT REFERENCE SYSTEM

As was stated at the end of §2.3, the basic rule for interpreting ellipsis of noun phrases is that, if gender or number do not indicate otherwise, the actor pivot of the first clause will continue to be pivot of subsequent clauses until a new pivot is indicated. The pivot can change between the roles of actor and undergoer as signalled by verb agreement alone, as in example (4). However, there are times when there is ambiguity because both the actor and undergoer are the same gender and number. In such cases, conditioned by semantic and discourse factors explained below, the pronoun *zēna* 'himself/herself/themselves' may be used to remove ambiguity. The pronoun indicates that 'the previous pivot is now the actor pivot' in the coordinate clause.

- (17) ¹*Habel walas tol-a in-sa lek tya-k-a*
Abel boy small-DEF that-U hit A.SG.CAUSE.U.M-P-A.M

²*in zep zēna ase-k-a.*
that then himself=PVT disappear-P-A.M

¹Abel hit that small boy, ²and that is why he (Abel) disappeared.

- (18) ¹*Habel walas tol-a in-sa lek tya-k-a*
Abel boy small-DEF that-U hit A.SG.CAUSE.U.M-P-A.M

²*in zep ase-k-a.*
that then disappear-P-A.M

¹Abel hit that small boy ²and that is why (he?) disappeared. (possibly ambiguous sentence)

The word *zēna* in example (17) removes any possible ambiguity as to who is the actor pivot of the second clause. It is the established pivot of the preceding clause, 'Abel'. If *zēna* is taken out of the sentence, as in (18), it is potentially ambiguous. It is just as likely that the 'boy' would disappear to avoid being hit again as it is that 'Abel' would disappear to avoid retribution by the boy's relatives. Still, such ambiguous sentences are often used in

conversation since the context removes the ambiguity. (The ambiguity would be cancelled if the sentence were preceded by the question, "Why did the boy run away?") If not, a pivot must be specified, either by specifying 'that boy' or 'Abel', either by name or with the pronoun 'himself', as in (17). The potential problem with (18) is that both the participants are male. If one of the participants were a female, there would be no need to specify which participant was the actor of the second clause, because the actor gender marking on the verb would leave no room for ambiguity. Thus semantic factors implied in the verb, context, and gender/number each play a role in tracking the pivot, but if these are not enough, names or pivot-controlled pronouns like *zēna* are used.

In addition to *zēna*, Orya also has two sets of pronouns for all other noun cases, and these may be used to specify whether any given participant is related to the established pivot or to the other potentially-pivot participant. For instance, a noun may be 'at the location of the pivot' or 'at the location of the one who is not currently pivot', or a noun may be 'possessed by pivot' or 'possessed by the one who is not currently pivot'. On the other hand, a noun might not be possessed by, or located at, either of the two potentially-pivot participants. Names are used in those cases. However, for nominals related to the two potentially-pivot participants, pivot-controlled pronouns are often used instead of names to remove ambiguity. The complete list of pivot-related pronouns is in Appendix A. Here is a comparison of third person singular forms:

Comparison of third person singular pronouns:

Case	Pivot-Controlled or Reflexive	Normal/Unambiguous
Dative	<i>zēre hap</i>	<i>zēbe hap</i>
Possessive	<i>zēre mo</i>	<i>zēno</i>
Benefactive/Means	<i>zēre hon</i>	<i>zēbon</i>
Ablative	<i>zēre onakon</i>	<i>zēbon onakon</i>
Allative	<i>zēre osan</i>	<i>zēbon osan</i>
Location	<i>zēre onak</i>	<i>zēbon onak</i>

Consider the change of possessor from (19) to (20):

- (19) ¹*Paulus* *Tomas-sa lek tya-k-a*,
 Paul Thomas-U hit A.SG.CAUSE.U.M-P-A.M
²*ki zep zēre mo we-nya ban gol-hetyang gwe-k-a*.
 and then his=PVT POS wife-DEF with A.SG.take.U.F-run LIVE-P-A.M
¹*Paul* hit Thomas, ²and then ran away with his own wife.
 (As will be explained in §2.8, the use of *-na* is almost obligatory with possessed kin. Here it is obligatory with the accompaniment postposition *-ban*. A phonological rule accounts for the epenthesis of *y*, changing the definite marker to *-nya*.)
- (20) ^{1...2}*ki zep zēno we-nya ban gol-hetyang gwe-k-a*.
 and then his.not.PVT wife-DEF with A.SG.take.U.F-run LIVE-P-A.M
 [¹*Paul* hit Thomas,] ²and then ran away with his (Thomas') wife.

The pivot in both clauses of (19) and (20) is the actor, 'Paul'. Changing the pronoun that indicates possessor, however, drastically changes the plot. Orya possessive pronouns can also be used to help specify a change of pivot, as in (21):

- (21) ...²*ki zep zëno we-nya jal gwe-bla-k-Ø.*
 and then his.not.PVT wife-DEF mad A.SG.LIVE-DAT.SG.M-P-A.F
 ...²and then **his (Thomas')** wife became angry at him (Paul).

In (21), the possessive signals that the possessor is not the previous pivot. Thomas' wife is identified, and she also is marked as the pivot of the second clause. The dative male that Thomas' wife is angry at, since he is not named, must be the previous pivot. If the possessive pronoun *zëre mo* had been used as in (19), it would be Paul's wife who would be angry at Paul. But in the (somewhat unlikely) event that Paul's wife was also angry at Thomas (in spite of her husband hitting him), his name could be used, or the undergoer pronoun *desa* could be used to specify the 'same undergoer as the previous clause', as in (22).

- (22) *Zëre mo we-nya hen desa jal gwe-bla-k-Ø.*
 his=PVT POS wife-DEF also him.U mad A.SG.LIVE-DAT.SG.M-P-A.F
 His (Paul's) wife was also mad at him (Thomas).

Word order does not influence the operation of the two sets of possessive pronouns. Either actor or undergoer (but never both) may be placed following the verb in the first clauses of (19) through (22), and the referents of the pronouns will remain as stated above.

As previously stated, pivot-controlled pronouns are used to remove ambiguity. Where there can be no ambiguity, for instance when there is an actor pivot but no undergoer, then the normal set is usually used and can only refer to the pivot. The normal/unambiguous set can also be used to represent the pivot where actor and undergoer number or gender make it clear who does what to whom. Semantic factors expressed in the verb, context, and gender/number play an important role in tracking the Orya pivot, but if these are not enough, names or pivot-controlled pronouns are used.

2.7 THE ORYA PIVOT IN CONNECTED DISCOURSE

We are now in a position to get a glimpse of how Orya tracks the pivot in connected discourse. In Orya, after the participants have been introduced, the primary tracking of them in the discourse is by means of verbal affixes for both gender and number of actor, undergoer and dative. Very few nouns or pronouns need to be used. If the participants are not named, this reduces them to nondefinite status on the hierarchy of Orya pivots. Other props or minor actors are introduced briefly as pivot, and then the pivotship reverts back to the already established major players.

The following is a translation of a traditional folktale from the village of Nembom Tol that was written by Hans Tenani. The complete Orya text is given in Appendix C. To show the way pivotal participants are tracked in the discourse, actor and undergoer names and pronouns that are actually present in the Orya text are boldfaced. These are classed as Definite Noun Phrases and are highest in rank on the pivot hierarchy. Actors and undergoers that are present only as verb affixes are in small print and are lowest on the pivot hierarchy. Temporary participants or props are italicised.

- (23) ^a**The man-DEF** (was) **name(d)-DEF Mr Aran.** ^b**He** went hunting from Nembom Tol village. ^c**But that man-DEF** was not a native from Nembom Tol. ^d**He** was a man from another village who lived there, living in his wife's village. ^eFrom there very early in the morning he went hunting toward the downstream of

Jaku (river). ^fA *pig-DEF* that(*desa*) he killed there, the *intestines-DEF* only of it he cut out, this(*desa*) he carried (in a bundle behind his back). ^gThe *meat-DEF* he submerged (in water) there on the way home, in order to come get it from Nembon Tol the next day. ^hThe *sun-DEF* had passed (centre – about 1-2 PM), and so from there again he went up Jaku creek, he came up toward here to the fork of Uhum creek-DEF, and he went up that way, and then he came up to the Wina fork. ⁱHe saw on the way home that the Wina (creek was) “Very clear-DEF”, and so went up that way. ^jOf course *people-DEF* had A.PL-told-U.M him, “When *arriving-here-DEF* (nominalisation) to Uhum fork, you must only go up the Uhum (creek). ^kIt (is) pure-DEF⁶ water-DEF. ^lBut the other-DEF, – Its name-DEF (is) Wina – don’t (go that way). ^mIt (is) cloudy-DEF. ⁿIt (is) at its headwaters that they DU-live, **two witches-DEF-that.is**.⁷ ^oTheir name-DEF (is) **Two Women**. ^pThey (the plural people of Nembom Tol) A.PL-named-U.DU them **Two Women** for this reason: (Because) *Mr Tahol*, who took **two girls-DEF** from an areca nut tree (in another tale from Nembon Tol), **these(des)** were A.DU-hidden-U.DU there (Wina headwaters) by Bati and Sonsyan (Tahol’s sons). ^qThose (are) **they** (who) turned into witches, so therefore they were A.PL-named-U.DU **Two Women**.”

In the beginning of our story, it is clear that ‘Aran’ is the first main participant, as he is designated using the definite level of the pivot hierarchy in each of the first four sentences. After that, he is present only in verbal affixes for the next six sentences. This allows for props to be brought on stage, such as the ‘pig’ in example (23). The sentence (23f) has already been given as example (16). Sentence (23j) would be in the Orya structure resembling passive if the noun phrase ‘the people’ were omitted. But here ‘the people’ refers primarily to the people of the village of Nembom Tol, and they are the implicit actors of the naming in (23), and they again figure in the story at the end. Quotes are a very important element in Orya narrative discourse. Here the quote of ‘the people’ serves to introduce the second set of main participants, the two ‘witches’, not only naming them but alluding to the story behind their naming.

- (24) ^aWhen **Mr Aran** stood at Wina, mid-way at the fork of the little stream name(d)-DEF Disu (tree type) Stump, there he met(footprints)-of.DAT.DU. ^b(He thought,) “Wow, these **two men-DEF** have very recently gone upstream spearing shimp.” ^cAfter that he thought, “Oh, these are **the two witches-DEF** of which (people) A.PL-tell-DAT.PL. ^dPerhaps it is **them** indeed (who) have just gone-A.F up”. ^eAnd then he A.M-TAKE-U.DU-followed their footprints up. ^fWhen he came up Wina, at Isrīm fork there he met (footprints)-of.DAT.DU going off away. ^g(He thought,) “Wow, they very recently A.DU-went-A.F up from here. ^hThe *footprints-DEF* are cloudy.” ⁱAnd there he feared, “Oh, these (are) **the two witches-DEF** of which (people) A.PL-tell-DAT.PL. ^j**This** (is) **them** going up”. ^kAnd then again he turned winding from there up that river-DEF.

Having just introduced the ‘witches’ at the end of paragraph (23), ‘Mr Aran’ is again referred to by name to reestablish him as the pivot at the beginning of (24). Suspense

⁶ The use of the definite marker with adjectives will be explained in §2.9.

⁷ The Orya suffix *-ye* is glossed here as ‘that.is’. This suffix often marks noun phrases that are intentionally phrased as afterthoughts.

heightens as Aran first realises he is following two people, and then as he 'puts two and two together' to figure out who the two are. Sentences (24e) is the first usage of the suppletive Orya prefix set which I will call the 'TAKE-' causative. The 'TAKE-' causative is the only set of Orya verb prefixes, and they are clearly a grammaticalisation of an earlier serial verb construction involving the suppletive verb 'take'. The effect of these prefixes is to increase valence, so that the verb has a clear actor and undergoer. The roles of actor and undergoer are not for causation, but to maintain the leadership roles that have been set up. In this case, the verb which has been glossed as 'follow' is an intransitive verb meaning 'to avoid following a meander of a stream by ascending and cutting through the forest'. But by adding the 'TAKE-' causative, 'A.M-TAKE-U.DU', a dual undergoer is added. Note that Aran does not actually 'take' the two witches (or their footprints) anywhere. As we will see, this device is used to maintain a clear relationship between the pivot and nonpivot participants.

- (25) ^aThe two witches-DEF however were at that time cleaning shrimp. ^bFrom the headwaters of Wina at a small fork of a stream name(d)-DEF Laga, there he A.M-saw-U.DU them away up above. ^cAnd they A.DU-said-DAT.M meeting him, "Hi friend, come here. ^dDon't be afraid-DAT.DU of us. ^eSit up here friend. ^fWe.EXCL will A.DU-TAKE-U.M- you -up to our(pivot=DU) house, so that you can (eat) some baked sago there on (your) way past". ^gFrom there then they together A.DU-took-U.M- him -ascended to their(pivot=DU) house. ^hThey A.DU-took-U.M- him -came to their house, and then A.DU-took-U.M-ate (with) him. ⁱTheir(pivot) little tame pig-DEF this(des) A.DU-killed-DAT.M for him, and then their(pivot) stored sago-DEF they A.DU-made.sago.pudding-DAT.M for him. ^jWhile they (the two witches) (were) still A.DU-took-U.M-ate (with) him, and the sun(-nik) was quickly going down, then they said to him, "Oh, wait for us. ^kWe are going to pick areca nuts and betel peppers-DEF over there for you so that you, friend, can chew- (while you are) -ascending (home)".

In paragraph (25), the witches take over the role of pivotal actors. This is signalled by their definite-level naming in (25a). But in (25b) and (25c), where there are no explicit pronouns, the pivot and nonpivot roles are quickly exchanged based on verb affixation alone. However, after this point, the witches are continually reinforced as being the pivotal actors by the five-times-repeated use of the 'TAKE-' leadership prefix. The use of the dative is also significant in maintaining the pivot versus nonpivot relationship in (25i). There the witches do not merely kill their 'tame pig' and 'make sago pudding', as it could have been expressed, but those actions are purposefully marked as being done 'for him'.

- (26) ^aWhen they had quickly A.DU-made- the day-DEF -dark-DAT.M on him (so he couldn't leave), they said to him, "Today, too bad, don't leave. It is really getting dark". ^bSo he didn't leave. ^cAnd so those two witches-DEF A.DU-took-U.M-slept with him. ^dThey told him, "Don't be afraid of us, friend. ^eWe will A.DU-accompany-U.M- you tomorrow -up and away to Nembom Tol".
- (27) ^aVery early the next day they A.DU-took-U.M-went. ^bThey had A.DU-caused-DAT.M- the man-DEF Mr Aran's good thoughts-DEF -to-disappear. ^cAt that time he A.M-thought-U.DU, "These are real women". ^dThen he didn't think of that (which he was told), like this, "Oh truly, people A.PL-told-U.M me like this, '(Two) women-DEF are living there, two witches-DEF'". ^eThey had A.DU-caused-U.M-to-forget (it). (U.M in this verb references the collective 'thoughts' of Aran, not Aran himself.)

In (26), the witches are, of course, the implicit actor-pivots of (26a), while in (26b) the man is the implicit actor-pivot. After this exchange of pivotship, the witches are again explicitly named in (26c), and another use of the 'TAKE-' prefix emphasises their leadership in the man sleeping with them. The 'TAKE-' prefix is used instead of simply saying that the three people slept together using the normal plural form of the verb, and nothing that would 'raise eyebrows' is implied in their sleeping together. In (27b), the very specific explicit reference to 'the man Mr Aran's good thoughts' prepares the way for a change of pivot in (27c). Looking back through the discourse so far, it can be seen that that quotes are often preceded by a definite reference to the speaker/actor-pivot in the near context.

- (28) ^aWhen they A.DU-brought(took-)U.M- him -close to the village, then from Nembom Tol he (was) A.PL-seen-U.M coming from away below, and then they said, "Oh that (is) **Mr Aran** who yesterday because of going hunting slept on the way here. ^b**That** (is) **him** coming up here". ^cBut because of **their, the two women-DEF**'s, A.DU-just.then-having-DAT.M him between them, *others-DEF* were saying, "That is perhaps a man from another village who is coming here". ^dBut *others* said, "**That** (is) **Mr Aran** coming up here".
- (29) ^aThen he arrived home to the village, and because of that people said to him, "Wow, but **you** have come alone! ^b**We** from here, ya'-know, were watching **you(-sa)** away down there. ^cThere (were) **two women-DEF who** (were) A.DU-having-DAT.M **you(-sa)** between them".
- (30) ^a(And then he said,) "Was that perhaps a **man** with two wives coming up here behind me? ^bThat is who(*desa*) you were -watching. ^cWhat two **women-DEF** would I A.SG-TAKE-U.DU (and) -come up (here) with?!".
- (31) And then they asked him, "Where did **you** sleep yesterday?".
- (32) (And he said,) "Oh, I put up leaves (as a shelter and slept) downstream".

In paragraph (28), the minor players come back on stage without fanfare, introduced only by the locative village name and plural actors marked on the first verb. In spite of the low-key introduction, the village people now alternate with the man as pivot through (32). As they look down from their hilltop village, they see a man coming on the narrow path with one woman in front of him and one following. The discussion as to who this might be with two women reemphasises the main actors of this story, as does the discussion with Mr Aran himself, who arrives alone. And now for the conclusion of our tale:

- (33) ^aAbout- **two women** (-undergoers) whom he (had) A.SG.taken.U.DU- (and) -slept-A.M with he didn't remember. ^bAnd then right away he became feverish, and so A.M-told-DAT.F his wife(-DEF-*ka* (deictic undergoer)), "Make a fire for **me**. I am feverish". ^cAnd then right away he trembled because of the fever. ^dNot long after he vomited. ^eBefore the end of the day-DEF, he convulsed, (and was a) *corpse-DEF*. ^fAnd then they heard down below **those two witches-DEF** as they were cackling while going away from there, "*Ēhē' hyēe*".
- (34) ^a(And they said,) "Oh, so **that** is who A.DU-took his (*zēno*-normal set) soul-DEF! ^bThat is why they were just A.DU-laughing while going from there down! ^cSo **that** (is) **who** A.DU-took-U.M- (and) -slept with him yesterday! ^dSo it was their(*zēre*-pivot set) house he slept at!".

In (33), the hapless Aran is still the pivot. The two women are marked with *-sa* in the introductory relative clause, indicating they are nonpivot undergoers. Because of Aran's status as pivot, he, rather than the witches, is now seemingly cast as the instigator of 'TAKE-slept'. Here it becomes clear that the 'TAKE-' causative serves more to maintain the relationship between the current pivot and nonpivot participants than it does in actually assigning leadership. This contrasts with (26c) where the roles were reversed. For the last time, the cackling witches are brought forward as undergoer-pivots with a deictic-level reference in (33). The final *dénouement* in (34) is the realisation of the village people concerning what has occurred. Once again the pivotal roles of 'TAKE-slept' are reversed in (34c), with the villagers' exclamations making very clear who the real instigators were.

Having seen the way Orya handles participant reference in this story, it can now be appreciated how very different the Orya system is from switch-reference systems in many other Papuan languages. In those languages, chains of medial verbs are followed by a final verb which may be marked for a switch of pivot. Orya verbs are not chained one after another and show no such marking. As seen in the story above, noun phrases tend to be used at paragraph breaks, and these often signal that one main participant will persist as the implicit pivot over the next sentences. But, on the other hand, once two main participants are established, overt pronouns are dropped and the two may switch rather freely between actor-pivot and nonpivot undergoer roles, marked in the verb complex by changes in actor and undergoer gender and number. Other devices, such as the pivot-controlled pronouns and the 'TAKE-' causative prefix, both of which may be seen in the story above, help to keep the relationships between the main participants clear.

2.8 THE DEFINITE MARKER AND THE HONORIFIC SYSTEM

In addition to discourse considerations affecting the use of *-na* explained in §2.5 and §2.7, Orya also has an honorific system also comes into play, as in examples (35) and (36):

- (35) *Em san mes-e zi-ni zer-k-a?*
 you INTER P.AUX-A.2 man-DEF TAKE-P-A.2
 (Spoken to a woman:) Are you married? (polite)

- (36) *Em san mes-e zi-si zer-k-a?*
 you INTER P.AUX-A.2 man-U TAKE-P-A.2
 (Spoken to a woman:) Are **you** married? (very rude)

If (35) and (36) were about taking a thing (such as money), both would be acceptable and the use of *-na* would be based on discourse considerations alone. However since these sentences are spoken in the second person about taking a husband, only the first is considered polite. When speaking directly to a person, it is not polite to refer to his or her relatives simply as nonpivot undergoers.

This is not the only place in Orya grammar where second person is treated specially. When marking verbs for gender, females receive the same marking as males when directly addressed.

Verbal suffixes for actor gender/person

Person	<u>singular/dual masculine</u>	<u>singular/dual feminine</u>
first	-Ø	-Ø
second	-a	-a
third	-a	-Ø

Note that third person males receive the suffix *-a*, and feminine third persons are marked by the absence of that suffix, as in example (37) below:

- (37) **Zen** *mes* *zi-ni* *ze-k-Ø*.
 she P.AUX man-DEF TAKE-P-A.F
She has/is married.

Most of the examples cited so far have been concerning third person male actors, so verbs have consistently ended with *-a*, but notice in examples (35) and (36) above that the second person woman receives the same suffix. When speaking directly to a person, she or he is addressed using the male third person suffix. Conversely, comparing first person with third person, when speaking of oneself, out of deference to the addressee, the feminine *-Ø* suffix is used.

So second person is shown special deference both in the verbal suffixes and in the honorific use of *-na*. However, when the relatives of a third person are spoken about, and particularly if there are any derogatory overtones, then it is common to refer to them as undergoers, as in examples (38) and (39) below:

- (38) **Zen** *mes* *we-sya* *dan* *so-k-a*.
 he P.AUX wife-U two A.SG.CAUSE.LIVE.U.DU-P-A.M
He has taken two wives. *Or*, He has taken a second wife. (somewhat derogatory, avoided in the presence of the person's other relatives)
- (39) **Zen** *mes* *we-nya* *dan* *so-k-a*.
 he P.AUX wife-DEF two A.SG.CAUSE.LIVE.U.DU-P-A.M
 He has taken two **wives**. *Or*, He has taken a second wife. (polite)

Conversely again, one seldom uses the special pivot-controlled pronouns (see §2.6) for the first person in Orya unless the speaker's leadership or seniority is clearly in view and is relevant to the conversation.

2.9 THE USE OF *-na* WITH ADJECTIVES

We have seen previously, in example (13), that *-na* can occur more than once in a clause. Before we conclude this section, it will be helpful for understanding examples later in the paper to explain that predicative adjectives also receive the *-na* marker, as in (40):

- (40) **Jalom-na** *hale* *san* *jal-jal-(n)a*.
 crocodiles-DEF downstream ALL fierce-REDUP-DEF
Downstream crocodiles (are) very fierce.

This is not a problem in the analysis, since the predicative adjective is always descriptive of the pivot.

2.10 CONCLUSIONS CONCERNING THE USE OF *-na* WITH ORDINARY NOUNS

Before discussing the use of *-na* as a nominaliser, it will be helpful to draw together the various threads of the discussion to this point. We have seen that the notion of pivot aptly describes the way that either actor or undergoer nominals may be marked with *-na* in Orya. But not every clause will use *-na* to mark the pivot, and *-na* can appear more than once in some clauses. A hierarchy guides both the Orya speaker and listener in the encoding and decoding of pivotal status. Overt marking as definite (*-na*) outranks noun phrases marked as deictic/descriptive (which use *-na* obligatorily), and both of these outrank nondefinite noun phrases. The placement of a nominal on the three-tiered pivot hierarchy is influenced by such discourse features as the introduction and prominence of participants, and the progression of the narrative. The definite marker also plays a role in the Orya honorific system. If speaking in the second person, it is only polite to refer to the person's family members as definite, not as a nonpivot undergoer. Similarly, when speaking in the first person, Orya speakers do not use pivot-controlled pronouns to refer to themselves unless their seniority or leadership is clearly in view and relevant in the discussion. The same definite marker also plays an important part in Orya nominalisation.

3. NOMINALISATION IN ORYA

3.1 NOMINALISATIONS VIA THE DEFINITE MARKER

If the definite marker *-na* is attached to a verb plus the non-temporal verb marker, the verb complex becomes nominalised. The resulting nominalisation behaves in every respect like an ordinary noun, and so may be modified by an adjective, possessed, pluralised, or coordinated. It also behaves like ordinary nouns in that it may serve as either actor or undergoer. Many nominalisations function as pivot, if marked by *-na* alone. If the nominalisation is marked as deictic/descriptive (*-na* + deictic), it may be superseded on the pivot hierarchy by a definite noun phrase, or it may also be a peripheral noun phrase if it is followed by the appropriate case postposition. It is the definite marker that is the nominaliser and not the nontemporal marker *-n*, which precedes it in nominalisations. The nontemporal marker (NT) is clearly a verbal affix because it occurs as the last suffix on imperatives.⁸

Example (41) was spoken by Hans Tenani as his story about Mr Aran (§2.7) was being reviewed. This sentence is a summary of (33f):

- (41) *Dekam zep na-sal-zim ane-k ngangol ě*
and then A.PL-hear-DAT.DU below-P laugh A.DU.LIVE

kĩnĩ-ora-n-na.

moving.from.there-down-NT-DEF

And then they heard the **laughter of (the) two (witches) as they were descending away from them.** Or, more freely: And then they heard the **fading echoes of two voices cackling in the distance.**

(In this section, **nominalisations** rather than pivot will be boldfaced.)

It is very clear in example (41) that quite a very complex bundle of information can be encoded in an Orya nominalisation. The verb for 'laugh' would be *ngangol gwe* in the

⁸ Another use of the NT can be seen in example (52): The NT plus the *-kam* (*-kim*) adverbialising suffix changes verbs to manner adverbs.

singular, but here is *ngangol* *ë* for the dual witches. The verb complex is nominalised complete with two directional suffixes. The nominalisation in (41) was obviously tailor-made by Hans for its particular context; it is not just a stock form. Orya nominalisations are freely created even by young children, and they refer to the whole activity of the verbal form, not to any one participant or product of the action. The nontemporal marker (NT) replaces past tense and the actor gender suffix, but as these are already clear from the context, no information is lost by nominalising this verb. Since verbs with the non-temporal marker lose part of their normal affixation, the reader might be reminded of medial verbs, which are common in other Papuan languages. However, as already noted, Orya does not employ chains of such non-temporally marked verbs followed by a final verb.

Example (41) shows a nominalisation which is the semantic undergoer and pivot of the clause. Example (42) is of a nominalisation as an actor pivot:

- (42) *Ki hwëna eno-nik mo ë-n-na in molya*
indeed however your-DU POS A.DU.live-NT-DEF that cannot
oto gwe-si-k-Ø.
please A.SG.LIVE-COMPL-DUR-A.F
From advice given to a newly married couple: 'Indeed if so (if you don't follow my advice), your **life together** cannot be pleasing (in anyone's eyes).'

The Orya verb for 'live' in example (42) is another suppletive verb root. The dual actor form is used for the married couple (singular is *gwë*; plural is *ëgwë/lowehe*), so that actor number but not gender is again encoded in the construction. Since the married couple includes both a male and a female, they would be referred to as a female in third person, but as two males in second person. If the married couple were 'pleasing' instead of their 'life together' being pleasing the form would be:

- (43) *Ki hwëna em molya oto ei-si-k-i.*
indeed however you cannot please A.DU.LIVE-COMPL-DUR-A.M
Indeed if so, you won't be pleasing (in anyone's eyes).

Comparing examples (43) and (42) shows that the verb complex *oto gwesik* 'pleasing' in (42) corresponds with the inanimate nominalisation *ëna* 'life together' rather than with the dual married couple. (Inanimate actor nouns are treated the same as female actors in Orya. No final vowel is suffixed to the verb.) However it is already clear that the complex pivot *ëna* 'life together' in (42) is a noun since it is modified by the possessive *enonik mo* 'your' and by the deictic 'that'.⁹

⁹ This is in contrast with a number of other Irianese languages that have what is termed clausal nominalisation, "nominalizations with no lexically derived noun" (Comrie & Thompson 1985:391-393). Instead of a verb complex like 'dual.actor.live' being made into a noun as in example (42), some Irianese languages (among them Bauzi and Iau) would nominalise a whole clause including a separate noun phrase and verb phrase, as in the sentence 'You live together NOMinaliser will not be pleasing (if you don't listen to my advice)'. Note that in such a clausal nominalisation, the pronoun 'you' does not become possessive as in Orya example (42). This information is from interviews with Dave Briley (SIL) and Janet Bateman (SIL). Bauzi is a member of the Geelvink Bay Phylum, East Geelvink Bay Stock-level Family. Iau is one of the dialects of Turu, Tor-Lake Plain Stock, Turu family-level isolate. From interviews with a number of linguists, it seems that Papuan languages differ widely at this point, and comparing the various methods of nominalisation would be a fruitful area for further research.

Abstract nominalisations in Orya are frequently cast as the actor of the verb 'come'. Example (44) is from a discourse where the speaker relates the implications of a myth in modern-day life. *Kwako* is his son, and the 'curse' that 'comes' is the Biblical flood. (Fields et al. 1991)

- (44) ¹*An-ye sembilan-nak angkam lowehe gwe-'an, Kwako mae,*
 this-DIS nine-LOC now A.PL.live REPET-PRES Kwako PLSR
²*men dekon ki kamana an olo-lo gwe-k-ye,*
 when from.then indeed world this turned-REDUP A.SG.LIVE-P-DIS
³*heip gu-n-nu in kim hata-k-Ø.*
 curse A.SG.CAUSE.U.F-NT-DEF that when came-P-A.F
¹This is the ninth (generation) now living, the (generation) of Kwako and
 others, ²from the time when the world was changed (here implying cataclysmic
 change), ³when that **curse** came.

In clause 3 of example (44), the abstract nominalisation 'curse' is the actor of a matrix clause, and the appropriate inanimate actor marker (feminine) is suffixed to the verb of the matrix clause. If the abstract nominalisation were an undergoer, the appropriate verbal affix for undergoer would have been used in the verb of the matrix clause. It is very clear that nominalised verbs are handled as ordinary nouns in regard to verbal agreement, functioning as semantic actors or undergoers. Nominalisations via the definite marker are the most common type used in Orya, but there is at least one other way to nominalise.

3.2 NOMINALISATIONS VIA THE ALLATIVE CASE MARKER

Orya can also nominalise with the use of the allative postposition *san*. Whereas nominalisations using *-na* may function as core or peripheral nominals, allative nominalisations function only as peripheral nominals. Allative case (ALL) is marked as a postposition to the noun, as in example (45):

- (45) *Zen Jayapura san sek gwe-k.*
 they Jayapura ALL A.PL.go A.SG.LIVE-P
 They went to (or toward) Jayapura.

A verb that is used frequently with allative nominalisations is the verb *ang gwe* 'follow'. In English, one either 'keeps' or 'breaks' laws, but in Orya one either 'follows' them or 'doesn't follow' them. And this is true also of 'following' several other abstracts, such as God's will, or a person's desires. Consider example (46) from a sermon:

- (46) *Zëno jalse gwe-n san hom ang*
 His rebuke/prohibit A.SG.LIVE-NT ALL not follow
ta gwe-k.
 A.PL.LIVE REPET-P
 They didn't follow (in the direction of) his prohibitions.

If, in another sentence, someone 'forgot' a 'rebuke', then a definite nominalisation would be used. The 'rebuke' would be the undergoer instead of an allative. When the verb used is 'follow' as in example (46), implying 'in some direction', then the allative is used instead. So the usage of allative nominalisations is based on the semantics of the verb used with the nominalisation. Another allative nominalisation can be seen in (50).

3.3 NOMINALISATIONS IN COMPLEX SENTENCE STRUCTURES

Section 3.1 presented nominalisations in simple sentence structures taking the roles of actor and undergoer. This was to show that nominalisations in Orya do indeed act like normal nouns marked with *-na*. We now turn to a brief overview of the role of nominalisations in more complex sentences. To introduce this, it will be helpful to understand the function of the ubiquitous particle *de* in Orya syntax. The particle *de* functions to set off a description phrase from a nominal that is described. Since it is somewhat like a preposition it is glossed below as OF. The description phrase may be of several types: a noun-purpose phrase, an allative phrase, or an adverbial. The descriptor particle *de* is not used with adjectives modifying nouns, but it is used, for example, when a noun followed by the purpose postposition describes another noun, as in 'work for (the purpose of) money' in example (47):

- (47) *te ala hap de syal-(n)a*
 money PURP OF work-DEF
 paying job

The descriptor particle stands between the purpose (*te ala* 'money') and the noun *syal* 'work' in example (47). 'Work' is not a nominalisation here but a noun form, since the definite marker is attached directly to the root.¹⁰ A noun-purpose + *de* may also be followed by a nominalisation instead of a noun, as in (48):

- (48) ¹*Hën mawa sop mae hap de ë-hakal gwe-n-na*
 also bird skin PLSR PURP OF A.PL-hunt REPET-NT-DEF
²*zi mo lang san bahem.*
 people POS land ALL don't
¹Also (if) **hunting** for such things as birds, ²don't (go to do it) on someone else's land.
 (The verb root *hakal* 'hunt' is one of a class of irregular Orya verbs that are prefixed for dual or plural actors. If the actors are dual, the prefix is *a-*.)

Sentence (48) is an example of the way a condition is typically expressed in Orya. The condition, 'hunting for bird skins' (such as birds of paradise), is expressed as a nominalisation that serves as the pivot of the matrix clause.

The descriptor particle *de* also stands between allative case nominals and nouns:

- (49) *Bwasom san de ora*
 Bwasom ALL OF path
 path to Bwasom

Nominalisations can stand in the place of both nouns in phrases similar to (49) above. The first nominalisation must be an allative nominalisation (described in §3.2). Hortatory text is fertile ground for nominalisations in Orya. This example is from a sermon:

¹⁰ The verb form for work is *syal gwe* 'work LIVE'. This verb form, by itself, is never nominalised since it would mean the same as *syala* above. However, if other affixes are added to the verb, the resulting form can be nominalised, as in *zëno syal gwizimdinni* 'his making of (working with) dual objects (such as chairs)'. That the *syal* is a noun is also clear below:

Zen te ala hap de syal-sa gol-k-a.
 he money PURP OF work-U A.SG.take.U.F-P-A.M
 He took a paying job.

- (50) ¹*Dekam zep hēndep ho namwa yal-na hata-k-Ø*
 then therefore eventually water flood big-DEF come-P-A.F
²*dekam zep kītak tap gul-su-k-Ø*
 then therefore all finish A.SG.CAUSE.U.F-COMPL-P-A.F
zi nol drakdrak-na in-sa ³*Alap zēre mo*
 men head hard-DEF that-U God his POS
dwam gwi-bi-n sin de ë-gwë-n srēm-na.
 desire REPET-DAT.F-NT ALL OF A.PL-live-NT not-DEF
¹And so that big flood came, ²and finished off all those hard-headed people,
³(whose) lives were outside of God's will.
 (The two nominalisations of clause 3 are more literally: **the direction of**
God's will OF not behaving ones.)

The first clause of example (50) above is straightforward. The pivot for the first two clauses is the actor, *ho namwa yala* 'the big flood' that 'came' and 'finished off'. The third part of the sentence is a phrase describing the definite undergoer of the second clause, 'those hard headed people'. The phrase including the allative nominalisation before the *de*, *Alap zēre mo dwam gwibin sin*, might be translated as 'aiming at God's will'. On the other side of *de*, the second nominalisation has the same form as the nominalisations via the definite marker discussed earlier, *ëgwën srēmna* '(manner of) life not'. The verb-internal negative *srēm* is used freely in Orya nominalisations. The whole final phrase functions much like a relative clause, but does not have the structure of an Orya relative clause.

The descriptor particle also stands between an adverbial and a noun, as in example (51):

- (51) *dekam de zi*
 then OF man
 person/people of that time

In example (52), the last sentence from the same sermon as (50), the descriptor particle stands between a complex adverbial and a nominalisation:

- (52) ¹*Yesus zēn sa nēp enlala-nak aha-en aha-en-kam*
 Jesus himself FUT.AUX to.us thoughts-LOC one-only one-only-MAN
srip gul-su-zim-d-i
 explain A.SG.CAUSE.U.F-COMPL-DAT.PL-REC-A.M
²*ano li tabi-n-kim de emsa*
 my miss.speak A.SG.CAUSE.U.PL-NT-MAN of you-U
tawa tabi-n-ni.
 teach A.SG.CAUSE.U.PL-NT-DEF
¹Jesus himself will explain to us individually in our hearts (liver) ²my **tongue-**
tied teaching of you.

The second part of example (52) is the undergoer noun phrase of the verb 'explain'. On the adverbial side of the *-de* particle, the verb 'misspeak (plural words)', has been changed into a manner adverbial with the addition of the non-temporal marker and the adverbialising suffix *-kam*. On the other side is a nominalisation of the verb 'singular actor teach plural undergoers'.

4. CONCLUSION

The Orya suffix *-na* is 'pivotal' in more than one sense of the word. As the definite marker, it is one of the primary means by which Orya speakers highlight one core nominal over another in the stream of discourse. When the definite marker is added to a verb + non-temporal marker, the verb is nominalised. The resulting nominalisations contain all the many parts of the agglutinative Orya verb except for tense and actor gender. These nominalisations take on the same roles as normal nouns marked with *-na*, that is, they take their places as actors or undergoers, they are possessed, or fill noun slots in complex sentence structures.

APPENDIX A: ORYA NOUN PHRASE CONSTITUENTS

Normal Orya Noun Phrase order is as follows:

(Possessor POS) NOUN (Adjective) (Deictic) (Case)

A minimum noun phrase would be a single noun or pronoun. An Orya clause may be complete with no noun phrase at all, if the participant(s) are already understood in the discourse. A large expansion of an Orya noun phrase is as follows:

Ki zep Bernat mo tane mo gol tetek-na
and then Bernat POS son POS house decrepit-DEF

in kon song gwe-k-a.
that ABL go A.SG.LIVE-P-A.M

And then he went **from that decrepit house of Bernat's son.**
(In the appendix, bolding highlights the element being discussed.)

A.1 ACTOR AND UNDERGOER CASE PRONOUNS

Orya pronouns, like nouns, are clearly marked for case relations. Actor pronouns follow the same pattern as those of the neighbouring Nimboran language (Foley 1986:71):

Actor and Undergoer Pronouns

<u>Person/Number</u>	<u>Actor</u>	<u>Undergoer</u>	<u>A=U (reflexive)</u>
first person (SG/DU/PL.EXCL)	<i>ēe</i>	<i>asa</i>	<i>aenaka</i>
first person (DU/PL.INCL)	<i>nen</i>	<i>něsa</i>	<i>něnaka</i>
second person	<i>em</i>	<i>emsa</i>	<i>enaka</i>
third person (SG/DU/PL)	<i>zen</i>	<i>desa</i>	<i>zěnaka</i>

Pivot-is-Coordinate Pronouns (As in the sentence: Boas **and he** (established pivot) went.)

<u>Person</u>	<u>singular</u>	<u>dual</u>	<u>plural</u>
first exclusive		<i>are han</i>	<i>aremaehan</i>
first inclusive		<i>něre han</i>	<i>něremaehan</i>
second		<i>ere han</i>	<i>eremaehan</i>
third		<i>zěre han</i>	<i>zěremaehan</i>

Normal/Nonpivot Coordinate Pronouns (As in the sentence: **Boas** and he (not necessarily pivot) went.)

<u>Person</u>	<u>singular</u>	<u>dual</u>	<u>plural</u>
first singular exclusive		<i>aban</i>	<i>abanmae</i>
first plural inclusive		<i>nëban</i>	<i>nëbanmae</i>
second dual		<i>eban</i>	<i>ebanmae</i>
third		<i>deban</i>	<i>debanmae</i>

If the two participants coordinated are of equal rank, one not leading or having seniority, the normal pronoun set may be used with the verb marking dual actors.

Boas deban song ë-k-a.
 Boas and.he go A.DU.LIVE-P-A.M
Boas and he went.

However, if there is a clear difference in seniority or rank between the two participants to be coordinated, or if one has been established as a main actor in a narrative, the pivot-is-coordinate set would likely be used. In that case, *zëre han* would be used in place of *deban* above.

If names of persons are used for both coordinate nouns, the second name is marked with the coordinate postposition *han*.

Boas Niko han song ë-k-a.
 Boas Niko and go A.DU.LIVE-P-A.M
Boas and Niko went.

There is a morphological similarity between the normal coordinate set above and *ban*, a postposition used with ordinary nouns.

Boas hlal-(n)a ban song gwe-k-a.
 Boas axe-DEF and go A.SG.LIVE-P-A.M
Boas went with an axe.

A.2 DATIVE AND NONCORE CASE PRONOUNS

Dative and noncore pronouns display the dichotomy between normal/nonpivot pronouns and pivot-controlled pronouns described in §2.6. Case-marking postpositions on these pronouns correspond to those used on nouns. The Orya prefer to write these postpositions separated from the noun or pronoun because this improves readability and makes the orthography look more like that of the national language. As explained in §2.4, the dative nominal cannot be pivot, but the dative nominal may be coreferential with an actor or undergoer pivot.

Dative-is-also-pivot pronouns

<u>Person</u>	<u>singular</u>	<u>dual</u>	<u>plural</u>
first exclusive	<i>are hap</i>	<i>arenik hip</i>	<i>aremaehap</i>
first inclusive		<i>nëre hap/nërenik hip</i>	<i>nëremaehap</i>
second	<i>ere hap</i>	<i>erenik hip</i>	<i>eremaehap</i>
third	<i>zëre hap</i>	<i>zërenik hip</i>	<i>zëremaehap</i>

Normal dative pronouns

<u>Person</u>	<u>singular</u>	<u>dual</u>	<u>plural</u>
first exclusive	<i>abehap/ap</i>	<i>abenik hip</i>	<i>abemachap</i>
first inclusive		<i>nēbe hap/ēp/nēbenik hip</i>	<i>nēbemachap</i>
second	<i>ebehap/ep</i>	<i>ebenik hip</i>	<i>ebemachap</i>
third	<i>zēbe hap</i>	<i>zēbenik hip</i>	<i>zēbemachap</i>

Possessor-is-pivot pronouns

<u>Person</u>	<u>singular</u>	<u>dual</u>	<u>plural</u>
first exclusive	<i>are mo</i>	<i>arenik mo</i>	<i>aremaemo</i>
first inclusive		<i>nēre(nik) mo</i>	<i>nēremaemo</i>
second	<i>ere mo</i>	<i>erenik mo</i>	<i>eremaemo</i>
third	<i>zēre mo</i>	<i>zērenik mo</i>	<i>zēremaemo</i>

Normal possessive pronouns

<u>Person</u>	<u>singular</u>	<u>dual</u>	<u>plural</u>
first exclusive	<i>ano</i>	<i>anonik mo</i>	<i>anomaemo</i>
first inclusive		<i>nēno(nik mo)</i>	<i>nēnomaemo</i>
second	<i>eno</i>	<i>enonik mo</i>	<i>enomaemo</i>
third	<i>zēno</i>	<i>zēnonik mo</i>	<i>zēnomaemo</i>

It is impossible to assign a single precise meaning to the next set of pronouns. This set is used for means in sentences such as 'Boas sent the letter (hand-carried) **by him**'. The same set is used for benefactive in sentences like 'Boas works **for him**'.

Benefactive/means is-pivot pronouns

<u>Person</u>	<u>singular</u>	<u>dual</u>	<u>plural</u>
first exclusive	<i>are hon</i>	<i>arene bon</i>	<i>aremaehon</i>
first inclusive		<i>nērene bon</i>	<i>nēremaehon</i>
second	<i>ere hon</i>	<i>erene bon</i>	<i>eremaehon</i>
third	<i>zēre hon</i>	<i>zērene bon</i>	<i>zēremaehon</i>

Normal benefactive/means pronouns

<u>Person</u>	<u>singular</u>	<u>dual</u>	<u>plural</u>
first exclusive	<i>abon</i>	<i>abonne bon</i>	<i>abonmae</i>
first inclusive		<i>nēbonne bon</i>	<i>nēbonmae</i>
second	<i>ebon</i>	<i>ebonne bon</i>	<i>ebonmae</i>
third	<i>zēbon</i>	<i>zēbonne bon</i>	<i>zēbonmae</i>

Pronouns for three other case roles follow the pattern of the benefactive/means pronoun set above. The postpositions below are substituted for the separately written postpositions

hon and *bon* above. Where *bon* is included in the pronoun, such as *ebon*, the postpositions below follow that pronoun.

Other cases using the authoritative pronoun set

Ablative	<i>onakon</i>
Allative	<i>osan (osan dep)</i>
Location	<i>onak</i>

<u>Ablative</u>	<u>person</u>	<u>singular</u>	<u>dual</u>	<u>plural</u>
Is pivot	third	<i>zère onakon</i>	<i>zèrene onakon</i>	<i>zèremae onakon</i>
Normal	third	<i>zëbon onakon</i>	<i>zëbonne onakon</i>	<i>zëbonmae onakon</i>

Instrument, manner, and time noun phrases are marked with the adverbialising suffix *-kam*. The adverbialising suffix is written as an enclitic attached to the last word of the noun phrase since, if separated, it can be confused with the adverb *kam* meaning 'at night'. Since instrument, manner and time noun phrases are rarely persons, they do not have an equivalent pronoun set.

APPENDIX B: ORYA VERB PHRASE CONSTITUENTS

The Orya verb phrase has eleven parts, of which only three are obligatory: the root, the tense/aspect suffix, and the actor gender suffix. Numbers refer to sections of the description below.

Tense/aspect auxiliary ... Adverb ... Verb complex

1

Verb Complex:

TAKE-ROOT-REDUP	CLASS	Directional ^{x2}	-REPET	-DAT	-Tense/Aspect	-ACTOR GENDER
2	3		1	4	1	5

The verb complex is phonologically one word, however; Orya speakers prefer to write the verb class markers separated from the verb stem. Directionals, when longer than one syllable, are also separated from the preceding element of the verb. This vastly improves readability of the verb complex, which may extend to at least eleven syllables.

B.1 TENSE/ASPECT AUXILIARIES AND TENSE/ASPECT SUFFIXES

The first element of the verb phrase and the next-to-last element of the verb complex work together to express tense and aspect, but the system is not a symmetrical one. All three forms of past tense have the same auxiliary, but are differentiated by the tense/aspect suffixes. The present tense auxiliary is used with differing tense/aspect suffixes to mark aspect. The other auxiliaries work in agreement with the tense suffixes to mark tense only.

	Person		
	<u>first</u>	<u>second</u>	<u>third</u>
Past	<i>mesë ...-k</i>	<i>mese ...-k</i>	<i>mes ...k</i>
Recent	<i>mesë ...-l</i>	<i>mese ...-l</i>	<i>mes ...l</i>
Very recent	<i>mesë ...-nan</i>	<i>mese ...-nan</i>	<i>mes ...-nan</i>
Present	<i>ama ...'an</i>	<i>ema ...'an</i>	<i>man ...'an</i>
Future	<i>asa ...-l</i>	<i>esa ...-l</i>	<i>sa ...-l</i>
Irrealis	<i>de ...-'anam</i>	<i>de ...-'anam</i>	<i>de ...-'anam</i>

(The irrealis uses the descriptor particle in place of an auxiliary.)

Normal present tense is marked as in:

Zen man *sangsang gwe-'ar-a*.
 he PRES.AUX sick A.SG.LIVE-PRES-A.M
 He is sick.

The present tense auxiliary is used in combination with the tense/aspect suffixes to mark durative aspect in the first of the next four examples, punctiliar past in the second, repetitive aspect in the third, and habitual in the fourth.

Zen man *sangsang gwe-k-a*.
 he PRES.AUX sick A.SG.LIVE-P-A.M
 He was sick for a period of time (in the past).

Zen man *sangsang gwe-'an-k-a*.
 he PRES.AUX sick A.SG.LIVE-PUNCT-P-A.M
 He was sick **at that point** in time (in the past).

Zen man *sangsang gwe-gwe-k-Ø*.
 she PRES.AUX sick A.SG.LIVE-REPET-P-A.F
 She was sick **again and again** (in the past).

Zen man *sangsang gwe-gwe-nan-Ø*.
 she PRES.AUX sick A.SG.LIVE-REPET-REC-A.F
 She is continually/frequently sick.

The repetitive aspect marker may be placed before any of the tense/aspect suffixes. It is homophonous with the *gwe* verb class marker glossed in this paper as LIVE. As in the last example above, verbs with the *gwe* class marker may also be marked with the *-gwe* aspect marker, resulting in *gwe-gwe*. The *-gwe* aspect marker is never inflected for actor number like the *gwe* verb class marker.

An adverbial phrase may optionally be contracted with the past auxiliary (*mesë*, *mese*, and *mes*). When this happens, the last word of the adverbial phrase is suffixed with *-ë*, *-e*, or *-Ø* for first, second, or third persons respectively.

Ēë karek-kam-ë *sangsang gwe-k-Ø*.
 I bad-MAN-1(P.AUX) sick A.SG.LIVE-P-1.A
 I was really sick.

B.2 'TAKE-' CAUSATIVE PREFIX

As stated in §2.7, the Orya *zer-/gol-* prefix set is clearly a grammaticalisation of an earlier serial verb construction involving the verb 'take'. The verb 'take' and this set of prefixes are

compared below. These are the only Orya verb prefixes. The effect of these prefixes is to increase valence, so that the verb has a clear actor and undergoer. The roles of actor and undergoer need not necessarily imply causation, since the prefix is often used to maintain the leading or leadership roles that have been set up, as was seen in several places in §2.7. Note that dual and plural undergoer forms are not as closely related as the singular undergoer forms.

Independent verb	Causative prefixes		
<u>'Take'</u>	<u>'TAKE-'</u>	<u>Actor number</u>	<u>Undergoer gender/number</u>
<i>gol</i>	<i>gol-</i>	singular	singular female
<i>ol</i>	<i>ol-</i>	dual	singular female
<i>nol</i>	<i>nol-</i>	plural	singular female
<i>zer</i>	<i>zer-</i>	singular	singular male
<i>ër</i>	<i>ër-</i>	dual	singular male
<i>nër</i>	<i>nër-</i>	plural	singular male
<i>tesya</i>	<i>zi-</i>	singular	dual
<i>lesya</i>	<i>i-</i>	dual	dual
<i>desya</i>	<i>ni-</i>	plural	dual
<i>lop-ta</i>	<i>golë-...-bir</i>	singular	plural
<i>lob-la</i>	<i>olë-...-bir</i>	dual	plural
<i>lop-da</i>	<i>nolë-...-bir</i>	plural	plural

B.3 VERB CLASS MARKERS

Orya regular verbs consist of a verb stem followed by a verb class marker. The classification scheme below and the notion of operators is based on Foley and Van Valin (1984:36-74), who based their work on that of David Dowty. In this theory, there are four classes of verbs: stative, achievement, activity, and accomplishment. The four classes are differentiated by the presence of operators BECOME, DO, and CAUSE. Stative verbs have no operators. Achievement verbs have the operator BECOME, so the verb 'die' is analysed as having a logical structure of 'BECOME not live'. Orya displays a high degree of correlation between the semantic operators originally proposed by Dowty and the verb class marking system.

Examples of meaning change with Verb Class Markers

<i>tawa-na</i>	knowledgeable	(Stative verb)
<i>tawa gwe</i>	learn	(BECOME know)
<i>tawa gwe (tawa gwi-bil)</i>	study (study about it)	(DO BECOME know)
<i>tawa ta</i>	teach him	(DO CAUSE BECOME know)

The two sets of Orya verb class markers, similar to the 'TAKE-' causative prefixes, are clearly grammaticalizations of earlier serial verb constructions. The verb class markers are suppletive morphemes corresponding to independent irregular verbs with the same suppletive characteristics. Dowty's four-part scheme is not quite appropriate for Orya, however, since two verb classes, activity verbs (having the operator DO) and achievement verbs (having the operator BECOME), are marked with the various forms of *gwe*. However, in defense of Dowty's theory, it is significant that the irregular Orya verb *gwë*, which corresponds with the

gwe marker, possesses both an activity sense 'live, stay', and an achievement sense 'happen'. The various forms of *gwe* have been glossed as LIVE in this paper.

<u>Independent verb 'live/happen'</u>	<u>LIVE class marker</u>	<u>actor number</u>
<i>gwë</i>	<i>gwe</i> (<i>gwi</i>)	singular
<i>ë</i>	<i>ë</i> (<i>ei</i>)	dual
<i>lowehe</i>	<i>ta/në</i> (<i>nei</i>)	plural

Orya accomplishment verbs (having the logical operators DO + CAUSE BECOME) are marked with the various forms of *gul/ta*. These suppletive morphemes encode not only actor number, but also undergoer number and gender, as does the corresponding irregular verb 'kill'. To kill a singular female is *gwi*, which corresponds to the feminine accomplishment class marker *gul*, and to kill a singular male is *ta*, which corresponds to the male accomplishment class marker *ta*. It may be that, in the process of serialisation, the verb 'kill' has undergone a gradual semantic bleaching as follows:

kill (affect mortally) > affect adversely > affect directly.

The various forms of *gul/ta* have therefore been glossed as CAUSE in this paper. Note the similarity of the paradigms below:

Accomplishment Verb Class Markers

Actor number	Undergoer gender/number			
	<u>fem.sing.</u>	<u>male.sing.</u>	<u>dual</u>	<u>plural</u>
singular	<i>gul</i>	<i>ta</i>	<i>so</i>	<i>tabi/guluda</i>
dual	<i>ul</i>	<i>la</i>	<i>oso</i>	<i>labi/ulida</i>
plural	<i>nul</i>	<i>da</i>	<i>noso</i>	<i>dabi/nulida</i>

Forms of the independent verb 'kill'

	<u>fem.sing.</u>	<u>male.sing.</u>	<u>dual</u>	<u>plural</u>
singular	<i>gwi</i>	<i>ta</i>	<i>zi</i>	<i>tamera</i>
dual	<i>ul</i>	<i>la</i>	<i>izi</i>	<i>lamera</i>
plural	<i>nul</i>	<i>da</i>	<i>nizi</i>	<i>damera</i>

There are other Orya verbs with semantic undergoers that do not use the accomplishment set of class markers, but instead mark the undergoer with dative suffixes. Many, but not all, of these verbs are those where the undergoer is not actually changed or necessarily affected in a real way, such as 'tell him'. The undergoer nominal, however, receives the undergoer case marker, not the dative case marker. Examples of this are found in B.4 below.

B.4 DATIVE VERBAL SUFFIXES

Dative verbal Suffixes

singular female	<i>bir</i>
singular male	<i>bla(bwa/bya/bli/bli/blu)</i>
dual	<i>zim</i>
plural	<i>birida</i>

Some Orya activity verbs use the dative suffixes for the undergoer instead of the undergoer verb class markers. The undergoer nominal, however, is still marked with the undergoer case marker *-sa* and not with the dative case postposition *hap*. For instance, the activity verb *syal gwe* means 'work'. *Syal gwe-zim* means 'make dual object' or 'work with dual object'. Evidently verbs such as *syal* are marked in the lexicon as not being able to take the undergoer class marker set. For such verbs the dative suffixes do double duty, marking either dative or undergoer.

Pinihas swe kursi-na in-sa syal
 Pinihas deceased chair-DEF that-U make
gwi-zim-k-i *abe hap.*
 A.SG.LIVE-DAT.DU-P-A.M for.me DAT
 Pinihas, who has passed away, **made that chair** for me.

Note that in the example above, *kursi* 'chair' (a word borrowed from Indonesian) is marked as a definite undergoer. In Orya, nouns with legs or arms are dual nouns, so the dual dative suffix of the verb agrees with 'chair'. The dative nominal *abe hap* 'for me' can optionally be marked in the verb as well. On the rare occasions where this is done, there are two dative suffixes, the first referencing the semantic undergoer, and the second marking the semantic dative, as in:

...*syal gwi-zim-bli-k-a.*
 make A.SG.LIVE-DAT.DU-DAT.SG.M-P-A.M
 ...made that chair **for me**.

B.5 ACTOR GENDER SUFFIXES

The suffix *-a* is used to mark male gender for third person singular and dual only. The same suffix is used as an honorific for second person, as explained in §2.8. The chart below shows that, when combined with tense/aspect suffixes, male forms for very recent/habitual and present/punctiliar are irregular.

	3F.SG/DU 1SG/DU <u>1/2/3PL</u>	3M.SG/DU 2SG/DU
<u>Tense/aspect</u>		
Past	-k	-ka
Recent	-l	-la
Very Recent/Habitual	-nan	-nda
Present/Punctiliar	-'an	-'ara
Future	-l	-la

APPENDIX C: AN OLD STORY FROM NEMBOM TOL

This is the full Orya text of the folk tale written by Hans Tenani. Sentence numbering and highlighting matches the English translation in §2.7.

- (23) ^a**Zini bosena Aran Bak.** ^b**Zen** man Nembom Tol ë nakon has gwëka. ^cHwëna **zini** in Nembom Tol ë walsa hom. ^d**Zen** hwëna aha ë nakore zi zë gwëka, we gon zik mo ënak gwëka. ^e**Zë** kon zep kak tangannak has gwëka Jaku hale san. ^f*Gwenya* desa zëk taka, *ngala* en *naka* anbla inki, desa bahla soka. ^g*Eini* man zë os ta guk halzaka, ka'an de otan Nembom Tol ë nakon song gweban hap. ^h*Yaklana* mes alan heka, dekon zep otan Jaku san zaheka, hata zaka Uhum dang gunnu, desan zep hwëna zahyaka, ki hata zaka Wina dang gunnuk. ⁱWinasa hlau'un zaka, "Lalak tanganna", desan zep zaheka. ^jSap **zini** man aïsïl dak, "Uhum dang gunnuk de *hata zanna*, Uhum en san emki zahyan. ^k**Zen** weyana lalakna. ^lDiki ahana–Zëno bosena Wina, – desan bahem. ^m**Zen** kil-kilï. ⁿ**Zen** zëno ananak ë gwenan, **we dowal dare naye.** ^oZëno nik mo bosena **We Dare.** ^p**Zen We Dare** kam mae hap ki bose nosok: **Tahol Bak** mensa **wenam tol darena** tesyakake walen timnik, **desa** zë aning osoka Bati ne Sonsyan ne. ^q**In zen** we dowal hap jok ëk, in zep bose nosok **We Dare**".
- (24) ^a**Aran Bak** kim Winasa hata haka, ngirinnik weya tane bosena Disu Tihï dang gunnuk, zë zep tolezim'inka. ^b"Wëo, zi **darena** an nër hom ki weyasa tëko hap akianbir zahe'nara." ^cDekon zep enlalak gwëka, "O, an **we dowal darena** mensa nen gwizimninke. ^dAn san ha **zen** mes ki yahe'nan yap". ^eKi zep ki tana wei san zitil zahe'anka. ^fKim Winasa hata haka, Isrim dang gunnuk dekon zep tolezim ane ane'an haka. ^g"Wëo, angkon tangan nër hom yahe'an. ^h*Tana weina* kilï ban." ⁱZë kon zep aïrï'anka, "O an **we dowal darena** mensa nen gwizimninke. ^j**An zen** ki yahe'nan". ^kKi zep ki otan weyana insa wale kinï zahe'anka.
- (25) ^a**We dowal darena** in dekam hwëna tükosa ngan labi'nik. ^bAna nakon Winasa weya tane bosena Laga dang gunnuk, zë zep ake'an haka. ^cZë kon zep en gublu'nak, "Naba tol. ^dAsa bahem aïrizimdin. ^eAwek tol nikin aneza. ^f**Ëe** asa **emsa** ërzahe are nik mo gol san, dobe maesa **eka** zëk ang gul kinïha". ^gDekon zep apdenak ërzahek zëre nik mo gol san. ^hGolak ërhatahak, ki zep ërtembane gwëk. ⁱZëre mo *zaho tanena* desa lablak, dekam zep zëre mo *dobe banamdana* aulmublak. ^j**Zen** kim nama ërtembane gwe'nak, yakla nik kim nabakam dum gwe he'anka, ki zep enblak, "O asa eis guzim. ^k**Ëe** wangir walenna wakinsa ebe hap lanbla'an ora san eka tol ëheng so zahe".
- (26) ^aKim nabakam *orapna* ansa kawesin ulbli'ak, ki zep dekon enblak, "Namen tol bahem gwëhan. Man tangan kawesin'in". ^bHom hëndep gwë halka. ^cZë zep ki **we dowal darena** in ërtak. ^dZëk aïsïl-aïsïl lak, "Asa bahem tol aïrizimdin. ^e**Ëe** asa emsa ka'an Nembom Tol ënak zon la guluhl".
- (27) ^aKa'an kak'nen tangannak ërsong gwëk. ^b**Zini Aran Bak** mo *enlala dawemna* mes srëm lablak. ^cDekam man kil soka, "An we tangan". ^dDekam hom mensa enlalak gwëka, amakan, "O eiwa, asa man sap aïsïl dak, amakan, **'Wenya** zëk dan ë gwenan, **we dowal darena**". ^eIn mes hwëna eititi lak.
- (28) ^aËnak kim ërgolek gwëhak, dekam zep Nembom Tol ë nakon kara da ane guhuk, dekon zep ëguk, "O in **Aran Bak** men zen ir has gwe song gwen nakim ta kinikake. ^b**In zen** zahya'ara". ^cHwëna **wenya dan-dan zen** mo ngirinnik ëblalne, *ahakorena* man zë kon ëguk, "In aha ë nakore zi mes yap song gwe'an zala". ^d*Ahakon* man ëguk, "**In Aran Bak** zahya'nara".

- (29) ^aKi zep hata zaka ënak, dekon zep nen gubluk, "Wëo, **em** hwëna e 'nene hata'nara! ^bËë dwan angkon kië **em**sa kara la ane gusun. ^c**Wenya dan** zen man **em**sa ngirinnik ëblalne".
- (30) ^a"In san ha ano lun san mes yap zahya'nara yap, we dare zi? ^bIn desae kara la gusun. ^cËë onda kore **wenya** ban de zizahyan hap?!".
- (31) Ki zep dakensi'blik, "**Em** ir ondawek taka?".
- (32) "O, ëë halenak-ë ki te alasa eyas gulonk".
- (33) ^aMensa **we dare** han zitaka, hom enlalak gweka. ^bKi zep hëndep ewe'anka, dekon zep we zemka¹¹ gubirki, "**Ap** syauknu i tasi'bli. **Ëë** ama ewe'an". ^cKi zep hëndep ewen naban yal-yal gwe'anka. ^dHom holo gwe'ak, ki zep wëk gweka. ^eHom hën orapna zausu'nuk, ki zep tilsiki, *tokna*. ^fDekon zep nasalzim anak **we dowa**l **darena** **insa** kim nga-ngol ëkinionk, "Ëhë! hyëe!".
- (41) [Dekam zep nasalzim anak, **ngangol ë kinī oranna**.]
- (34) ^a"O an **zen** mo zëno angna ër zen! ^bIn zep nga-ngol ë kininanon! ^c**An zen** mo ir irtak zen! ^dZëre mo golak an zep mo tilidane!".

REFERENCES

- Comrie, Bernard and Sandra A. Thompson, 1985, Lexical nominalization. In Shopen, ed., 1985, vol.III, 349-398.
- Fields, Philip C., 1991, A phonology of the Orya language. *Papers in Papuan Linguistics*. No.1, 29-56. PL, A-73.
- Fields, Philip C. et al., 1991, Of paradise lost: Orya myth as explanation and history. *IRIAN: Bulletin of Irian Jaya* 19:23-37. Jayapura: Summer Institute of Linguistics.
- Foley, William A., 1986, *The Papuan languages of New Guinea*. Melbourne: Cambridge University Press.
- Foley, William A. and Robert D. Van Valin Jr., 1984, Functional syntax and Universal Grammar. Cambridge: Cambridge University Press.
- 1985, Information packaging in the clause. In Shopen, ed., 1985, vol.I, 282-364.
- Givón, T., 1990, *Syntax: a functional-typological introduction*, vol.II. Amsterdam: John Benjamins.
- Keenan, Edward L., 1985, Passive in the world's languages. In Shopen, ed., vol.I, 243-281.
- Shopen, Timothy, ed., 1985, *Language typology and syntactic description*. Cambridge: Cambridge University Press.
- Silzer, Peter J. and Heljä Heikkinen Clouse, 1991, *Index of Irian Jaya Languages*, 2nd ed. Jayapura: Summer Institute of Linguistics. [A special edition of *IRIAN: Bulletin of Irian Jaya*].

11

The possessive pronoun used here, *we zem-ka* ('his wife') is a contraction of *zëre mo we-nya-ka*, a member of the pivot-controlled pronoun set.

SANGUMA

DONALD C. LAYCOCK¹

This is a preliminary attempt at providing some documentation on both a word and a concept – preliminary because most of the data is negative. The word is *sanguma*, and the concept is what that word should mean – but does not necessarily, because the word and the concept may have had different histories. Before I start I want to make some concepts quite clear. I do not want to talk about every kind of magic or supernatural manipulation in Melanesian societies. We can take it that all Melanesian societies have some means of ensuring the continuance of the group by magic, or supernatural manipulation – garden magic, fighting magic, and so on. The theory behind most magic of this kind is that all good things come from the ancestors, and that by means of the appropriate rituals, approved by the ancestors, these things can be continued. Most societies also have other classes of supernatural beings which are not ancestral spirits – or, if they once were, their connections with a particular clan have been lost. For convenience, we call ancestral spirits *tambaran*, and the natural spirits *masalai*, while realising that not all groups make the distinction clearly.

In addition, most groups in Melanesia, if not all, appear to have the belief that death can be caused by supernatural means, by a sorcerer who enlists the aid of the spirits; the usual prerequisite for this type of activity is the personal leavings – faeces, nail clippings, hair, or other exuviae – of the person ensorcelled. This will be called *exuvial sorcery*, or sorcery for short. But none of these are *sanguma*, in the sense I will be using it. The characteristics of what I regard as *sanguma* will emerge as we look at some of the definitions. The earliest use of the word I have discovered is in Hoeltker (1940-41), from a communication in the ‘Steyley Missionsbote’ (SM) by Father Franz Vormann, in 1906-07:

Daily communication with the Monumbo in German, but religious instruction exclusively in the Monumbo language...Death-magic (‘Todeszauber’) zanguma; finding a death-sorcerer by means of bamboo (moramba); this practice known only to the Kamatsina, not the rest of the Monumbo... [author’s translation]

(See also SM 34:89-92, 134-135, 153-154, 169-170, 183-186.)

Further detail is added in one of Vormann’s (1910) ethnographic articles on the Monumbo:

¹ PL editor’s note: Dr Laycock died in 1988, and some changes which would normally have been made to this paper in consultation with the author have not been made: this applies in particular to the reference list, which contains many items not referred to in the text, and which accordingly has been retained as a bibliography.

They (the Monumbo) have a great fear of *tsongam*, magic. Especially in the dark do they suspect that behind every tree, in every corner there are evil men who will attack them and render them immobile and insensitive by magic, so that they cannot defend themselves or cry out, when the evil man, called *tsanguma*, will wound them by sharp slivers. He closes the wound by magic, and by magic ensures that the victim will not remember the attack, will not be able to talk about it, and will not be able to name a name.

Some additional linguistic data appears in Vormann and Scharfenberger (1914):

<i>tsangumo</i> (sing. t)	violence by means of magic
<i>tsongam on</i> (f.)	evil magic
<i>tsongatsongam tset</i>	injure fatally by means of magic [author's translation]

Note that Franz Vormann's earliest communication about the Monumbo is in SM for 1900-1901; the mission station was founded in 1899, and Vormann had been in New Guinea since 1896 (probably at Tumleo – founded on 31 August 1896, the first of the north coast Catholic missions).

An extended account of *sanguma* is given by Koster (1942-45); here are a number of quotations – firstly from Georg Hoeltker's introduction to the paper:

The word *sanguma* comes from the Monumbo language, where it has the form *tsangumo*, a singular noun meaning 'violence by means of magic'. From the Monumbo language the word came into Pidgin English... In the 'Pidgin-Dictionary' collected and published by the Catholic Mission at Alexishafen the meaning of the word *sanguma* is given as: 'murderer who murders through black magic'.

...It does not seem that people believe that *sanguma* is a spirit, but that there are humans – probably only men – that always carry out the attack in the company of others. The word *sanguma* is usually used only in the singular, from which the conclusion can be drawn that the indigenes understand by *sanguma* a kind of institution. This view is strengthened by the fact that the word in its original meaning in the Monumbo language is a singular noun. In fact, *sanguma* in the current language Pidgin English means not only the (imaginary) institution, but also the actual attack, and is particularly applied to the men who carry out the attack.

I should tentatively like to voice the supposition that *sanguma* is a 'secret society' a typical secret 'male cult' in the sense known to ethnography. I have not to date been able to find positive information or proof, but a definite relationship between *sanguma* and the typical male cults in other primitive peoples speaks strongly in favour of this supposition.

It seems that it is in the Bogia region and the neighbouring islands that *sanguma* finds its principal expression. I have the impression that *sanguma* operates mainly among the populations of the coast and the islands. It seems to me that the *sanguma* phenomenon further inland is almost or completely unknown; at least, I have had no communications about it from the missionaries in East Central New Guinea.

I do not know precisely how far much further west than the Bogia area and the mouth of the Sepik *sanguma* occurs. The villagers in the Wewak area did however ask me, when I went alone through the bush, whether I was not afraid of *sanguma*; so they were well acquainted with the existence of *sanguma*. According to Margaret Mead, as the above quotation shows, *sanguma* is also known in the But region. I have not yet had any data about regions further west.

East of Bogia sanguma seems to be known to about as far as Madang. However I have only few chance indications in my possession.

Whether sanguma show particular strong or special 'plantation' ('boycultur') elements – which would indicate a recent origin – as Margaret Mead appears to suggest, I cannot yet confirm or deny. I believe that our knowledge of the data is still insufficient to be able to say anything positive, and Mead's view is given simply as a supposition.

I do not know if sanguma occurs, in its typical form, elsewhere in New Guinea, but it is a fact that the foundation on which sanguma is built in the Bogia region is found throughout New Guinea. The foundation is on the one hand the actual secret murder (by poison, attack, etc.), and on the other hand the widespread belief in the possibility of causing harm to a human being by the means of black magic. Both are widespread in New Guinea. Whether sanguma is a Melanesian or Papuan invention cannot yet be even guessed at. [author's translation]

Koster himself writes:

To my present way of thinking the true concept of sanguma is that it is nothing other than the secret assault on an individual – from personal motives, or (paid or unpaid) on behalf of third parties – in such a fashion that the individual dies a few days later. Sanguma men are thus secret murderers, who carry out their murder in such a way that the victim does not die immediately, but only after a few days. I have not myself been a sanguma victim, nor a witness of an actual attack. But I have seen sanguma murderers and victims both before and after an attack, as described later.

From what local people have told me, I have formed the following idea of the methods, goals and motives of sanguma secret murder: The sanguma method is as follows: the sanguma men attack a lone individual in the bush...and mistreat him in such a way that he dies a few day later. The murderers conduct their attack in such a way that the victim is still capable of reaching...the nearest friendly village, where he dies a few days later. I conclude this from the fact that the people sometimes say: 'They did not sanguma him properly, they killed him'...The goal of the sanguma men is always the death of the victim...If the victim does not die, it is because the murderers were disturbed at their work, and were thus unable to perform all that is necessary for a sanguma murder...

(Motives: any arbitrary reason: women, enmity, etc.)...The murderers grab their victim and bring him wholly into their power. The victim must be rendered completely powerless, preferably unconscious. Then, usually, sharp, thin needles of varying lengths are stuck into various parts of the victim's body. I believe they use flying-fox bones...The thin needles somewhat resemble fishbones – and fishbones are also used... [author's translation]

(Later, some concrete instances of sanguma, from the 1930s, are given – including the removal of needles from an intended victim.)

Putting together the Vormann, Hoeltker and Koster accounts from the Bogia region, we can define *sanguma* for that region at least as having the following characteristics:

- (1) *Sanguma* is an institution of murder, not merely of sickness.
- (2) The act of *sanguma* is carried out by men – not spirits, disembodied souls of men, or any other agency.
- (3) *Sanguma* men act in groups, not alone.
- (4) *Sanguma* involves a physical attack on an individual in a lonely place.

- (5) The individual recovers from the attack, but cannot name his attackers, and dies a few days later.

From Burrige (1965) and Lewis (1977), as well as from the above sources, we can add a few details that seem implied in all accounts, but which are not always spelled out:

- (6) *Sanguma* is an antisocial act in the way that other magic and sorcery, even witchcraft, need not be.
- (7) *Sanguma* is carried out only on a single individual at a time. Going through the bush accompanied is sufficient protection – a woman accompanied only by a child is safe from *sanguma*.
- (8) There is no magical protection against *sanguma*, and no remedy once the attack has been made – though there are instances of *sanguma* victims recovering if the attack has been aborted.

Less necessarily a part of *sanguma* are the following:

- (9) Needles – of wood or bone – are inserted into the victim; these may or may not be poisoned. Death is presumably a result of the needles piercing a vital organ, but just possible from poison or septicaemia.
- (10) The victim's inability to tell of his experience is related to:
 - (a) the disguise of the *sanguma* men
 - (b) physical damage to the tongue (by a needle, or cutting)
 - (c) possibly drugs
 - (d) possibly fear.

Sanguma then can be called in English 'assault sorcery', a term used by Glick (1972). The ethnographic evidence before World War II – which is all we shall consider for the moment, to avoid complications arising from possible post-war diffusion – suggests that it had a fairly limited distribution. I can find no evidence of assault sorcery, from an admittedly quick skim through ethnographic literature – for all of island Melanesia (with the exception of islands lying right off the north coast of Papua New Guinea), for the Highlands, and for most of Papua. The main areas are the coastal and immediately adjacent inland areas of the Madang and East Sepik Provinces, with some spread into West Sepik and Morobe Provinces.

For Papua, the question of whether *sanguma* occurs there becomes a question of whether we regard *vada* as being the same kind of assault sorcery. Murray's 1912 account of the Koiari practice, cited by Hoeltker (1942-45), certainly shows resemblances:

One form of murder or alleged murder which should be mentioned is said to be committed by persons who in the Motu language are called Vada taudia... They have the power of making themselves invisible by means of a certain dance which they perform with, I am told, elaborate ritual, and while they are invisible some of them enter a house, catch one of the inmates, and throw him to their friends outside, who beat him to death... Having killed their man they proceed to bring him to life by rubbing him with their hands and muttering incantations, but he only lives for a day or two at most, and during that time he has forgotten all about the attack that was made upon him.

Further details are given by Fortune (1932) from various sources:

(quoting C.G. Seligman on the Koita):

One or more (often two or three) men who were sorcerers would follow their intended victim to his garden, or into the bush. There he would be speared and clubbed, and when dead cut to pieces. One end of a length of rope is then looped round the dead man's hand or knee, while the opposite end is steeped in certain 'medicine'...the virtue in the medicine passing along the rope to the dead man would restore him to life. Often the medicine of the sorcerer who first endeavours to revive the dead man is not strong enough. Then his colleagues would be asked to help. The dead man on his revival is dazed...and knows not where he is, or what has befallen him. He is told that he will die shortly; he does not subsequently remember this, but manages to return to his village, where his friends know what has happened to him by reason of his feeble, silly condition, though the victim himself does not know, and gives no account of what has occurred.

Fortune reports the same procedure for Dobu; Malinowski gives essentially the same account – though as a belief, not a practice – for the Mailu. An account from Cape Nelson, from Mr Oelrichs, Resident Magistrate, in the *British New Guinea Reports for 1904*, reads:

...The general belief in the district (Maisina and Wanigela). When a man dies suddenly, it is supposed that when the deceased was last in the bush he was met by some persons unknown who, it is surmised, live in a swamp; the man is caught and held by the unknown persons, and a vine twisted round his throat so as to throttle him; when the victim faints the vine is released, and he is brought round by the application of New Guinea drugs and placed on his feet.

One of the strangers then steps forward and says: 'Do you know us?' If the subject of the inquiry replies 'No', he is again asked: 'Will you tell your people what has been done to you?' Should he reply in the affirmative he is immediately thrown down again, and this time a thorny lawyer vine is forced into his gullet and violently withdrawn so as to tear the root of the tongue. He is again then asked the question, but is, of course, unable to reply; the man is then badly mauled and allowed to return to his village, where he dies. At his own village he is able to speak on any subject but the one in reference to the treatment he has received.

(Fortune emphasises the similarity of the ritual questioning to the Dobuan account.)

It can be seen that, though there are inconsistencies in the *vada* accounts – such as the man being able to talk on any subject but the attack, even after (presumably) his tongue has been torn out, the resemblances to *sanguma* are close enough. The main difference appears to be the belief that the victim is first 'killed' and then 'revived', but this is not incompatible with the *sanguma* accounts, merely a different explanation of the same phenomena. There are also minor differences in technique which are not significant. I think we have to count *vada* with *sanguma*, and plot it at least for Koita, Koirari, Mailu, Dobu, and the Cape Nelson area.

We have then a basic distribution of assault sorcery mainly in pockets along the north coast of Papua New Guinea, with a few pockets in the south. Most instances are among speakers of non-Austronesian languages; where it is found in An-speaking groups – Manam, Graged, and scattered An pockets along the Sepik-Madang coast – the Papuan language groups, who are usually reported as the ones with the most powerful *sanguma*, are close by. The one exception is Dobu, but even there the Papuan *vada* areas are not far away. We can add here a few more references for the distribution of assault sorcery – although not all are pre-World War II, these do not seem to be the result of diffusion.

- (1) Hoeltker (1940-41) cites P. Andreas Mueller (1933-34) (see SM 61:35-38, 63-65):

Fear of the natives of sangumai, that is, men who suddenly attack lone individuals and secretly kill them. (Inland from Boikin).

- (2) Mead (1938-1949) (from the Glossary 1938):

Sagumeh (P.E.) A form of combined sorcery and divination, associated with pointing bones, burial of exuviae, and possession by a spirit of the dead; contains many work-boy elements and is rapidly diffusing through the work-boy population of the Madang Aitape coast.

Mead, writing in 1977, does not include *sanguma* in her list of NM (Neo-Melanesian, Tok Pisin) terms "that seem to be shared throughout the central, and at present unbounded, Sepik area", but she does have a comment about it when commenting later on poison:

It is also important to recognise that the same term may occasionally cover widely different practices. For example while *poison* is widely used as a general term for sorcery, *sanguma*, the name for a particular sorcery practised, is sometimes used specifically but sometimes also encompasses the entire supernaturalistic practice of a people. Mihalic, who is located in Wewak, gives the meaning of *sanguma* as follows:

"Sanguma, (sang-uma) (Mel), secret murder committed by orders from sorcerers. The victim is waylaid, short poisoned thorns are inserted into the base of his tongue, causing swelling and loss of speech. Then other thorns (usually from the wild sago plant) are pushed into vital organs, where they cause infection and eventual death" (Mihalic 1971).

Writing in 1935, I used the term *vada*, which had already been widely used in the literature on Papua, to discuss this practice, but without giving it the naturalistic, matter of fact explanation which Fr. Mihalic gives it. "The essence of *vada* is an encounter in which the sorcerer intimidates his victim, magically removes his entrails, sews him up again, and sends him back to his village to die after a specified period of time. This method is one of the chief hypothetical causes of death in Manam and Wogeo, although Hogbin does not believe that it is actually practised on Wogeo, and Wedgwood's account is not specific as to whether she believes that it occurs or not. The whole nature of the practice is such that it is very difficult for the field-worker to distinguish between fantasy and myth, on the one hand, and actual practice resulting in the death of specific persons on the other. The Wanimo people believe that it is practised by the people of Wanip-on-top and the Murik informants gave an account almost identical with Wedgwood's description for Manam. The Arapesh had heard of it, but had no belief that it was practised in their midst. The Mundugumor believed that it was practised by the people of the upper Yuat, who had, however, tried in vain to practice it on them. Bateson (1932) obtained a long detailed account among the Iatmul. Working in the field in 1971-72 among the Lujere of the Yellow and Sand Rivers Mitchell found that the term *Sanguma* characterised the entire complex of supernatural practices of sorcery, healing and hunting (Mitchell, unpublished field work). Here we move from a disavowed fantasy to a full time preoccupation, and to a widespread usage in which the referent does not have the same thematic consistency as the terms I have selected.

(Mead slightly misquotes Mihalic 1971: the pronunciation of *sanguma* is given as 'sang-guma', not 'sang-uma').

(3) Schebesta and Meiser (1945):

Sanguma, (pronounced sang-guma) n. a very secret system: a man disguises himself and sneaks around to find somebody to kill. These crimes are committed either in the late evening hours or in the early morning.

(4) Tuzin (1976:184) (on the Ilahita Arapesh):

Part of Amilen's inheritance included sorcery magic, and he was even sent to the Bumbita village of Salata for tuition in highly potent 'sangguma' magic. (fn)...

(fn) This is a form of destructive magic which, in its concern with psychic phenomena, animal familiars and physiological states of involuntary evil, bears closer affinity to classical notions of witchcraft than to "normal" sorcery. Most men are thought to know techniques of sorcery that use spells and the victim's exuviae, but these are sharply distinguished from 'sangguma', which is the province of only a few, highly feared men.

A full account of *sanguma* among the Gnau is given by Lewis (1977), and the Lujere details of needle insertion and removal are given by Mitchell (1975). Hogbin, in a number of papers, mentions *yabou* sorcery on Manam, but dismisses it as being pure fantasy, with no counterpart in practice. An extensive account of *ranguma* sorcery among the Tangu, on the Ramu, is given by Burridge – especially Burridge (1965). Gehberger and Gerstner both have passing mentions of *sanguma* among the Arapesh and Boiken peoples of the Wewak region.

Back to some linguistic aspects. I have not attempted to chase up the word *vada*, but to the best of my knowledge it is a Motu word. As for *sanguma*, the probability is fairly high that it does come from the Monumbo language. Not only do we have the first mention of the word only seven years after the opening of the Monumbo Mission Station in 1899 – or probably six years, if we allow for the time Vormann's paper took to get to Germany and be printed – but we have a number of other related words in the Monumbo language. In any case, it would seem unlikely that the word could have been imported from anywhere outside Papua New Guinea. I have wasted a lot of time trying to track down a reported *sanggoma*, with approximately the same meaning, from southern Africa; but I have been unable to document this in any reliable source, and cannot find words even remotely like it in a score of African language dictionaries. If the word *sanggoma* for assault sorcery does exist anywhere in Africa, I believe it must either be a chance resemblance, or else a loan word into African languages, perhaps introduced through the medium of SVD priests, via their headquarters in Vienna. But I think we can ignore the African connection for the time being.

Sanguma could of course be a loan word in Monumbo, from some other language. Burridge speaks of *ranguma* among the Tangu; but the word *sanguma* is not likely to have been borrowed from this. For most Papuan languages, the phone 's' – whether or not it is a phoneme – can only (if it is to be derived from anything) form a 't' before a high front vowel; but there is no evidence that the vowel in *sanguma* was ever anything but an 'a'. On the other hand, words with 's' are often borrowed into Papuan languages with a 't'. Nobody has *tanguma*, but *ranguma* could derive from such a form.

The case for Monumbo would be stronger if we could find cognates in other Torricelli Phylum (TP) languages, but I cannot find a corresponding form in Arapesh, and the Valman word is quite different. For most TP languages the word was not elicited. Gnau has *langasutap* (Lewis 1977), which could just conceivably be a cognate – but I would not put

my hand in the fire for it. And apart from the evidence from Tangu – a language unrelated to Monumbo – I have not found the word anywhere else.

Taking *sanguma* as most likely coming from Monumbo, however, we are faced with the question of how this small community (with Lilau, a closely related language, only numbering 860 individuals in 1970) managed to get their word into Tok Pisin, as the only word in the language which can be shown to be from a Papuan Language. I don't have the answer to that either. Monumbo must have had a lot fewer speakers 60 years and more ago; Hoeltker (1940-1941) cites a missionary (P. Wilhelm Ricken, SM 44:34-37) as saying: "In 1924 Monumbo had only 25 school children; tribe dying out". (And there are other references to their small numbers). I can hazard a guess that the transmission process was related to the German plantations (many of them mission-plantations) along the Bogia-Madang coastline. Once the word entered the pidgin of other groups, the SVD priests would be likely to preach against the institution of *sanguma* – and thus help to spread the word. (It is even possible that SVD priests preached against *sanguma* before the word was in their area, and spread it that way). The further extension of plantation labour from Madang to the Gazelle would have carried it to that area, and the Sepiks – who had the concept, if not the word – would have got it in the time of extensive Sepik labour-recruiting following World War II. But this is something that would have to be documented another time. The spread of the word *sanguma* in the post-World War II period is, I think, related to the spread of Tok Pisin, via the plantations. The word and the concept of assault sorcery would be likely to appeal to the imaginations of those whose sorcery was limited to more conventional forms. The result is that now both Highlanders and Islanders talk of *sanguma*, sometimes in the Sepik-Madang sense, but just as often applying it to whatever form of exuvial sorcery they possess. (In the Western Highlands it is also applied to the shamanistic spirit-possession found in a number of areas.) Or it can be applied to supernatural beings; in this quotation from *Wantok* (2 July 1977), from a correspondent from Erave (Southern Highlands Province) it is used as equivalent to both *tambaran* and *masalai* – itself a confusion of two useful terms:

Long dispela ples i no gat man na i pulap tru long ol sanguma o masalai. Wanpela taim Wanpela man i lusim Margarima na i go long Tari...Em i lukim draipela man na gras bilong en i go daun long lek, na mausgras tu i go daun long lek olosem tasol. Em masalai tasol...Tambaran ya i singautim ol arapela masalai...

The accompanying illustration reads *Sanguma Kaikai man*.

In my own experience round the Sepik, *sanguma* is always described in 'classical Monumbo' terms. But if you ask who has *sanguma*, the coastal people point inland; the Abelam point west, to the Arapesh; the Arapesh and all almost to the border also point west; the border people point east. The common ground is the Torricelli Mountains, almost exclusively inhabited by speakers of Torricelli Phylum languages. (The major exception is constituted by the Fas, members of the little-known Kwomtari Phylum; everyone agrees that they also have powerful *sanguma*.) The only other people in the area who are reported to have *sanguma* – and this time by an anthropologist, not in local estimation – are the Lujere, Namie-speakers (Sepik-Ramu Phylum) from around Yellow River (Mitchell 1975). Even among the Lujere, however, the beliefs seem to fit *sanguma*, but Mitchell's description is largely of exuvial sorcery, and healing of witchcraft victims.

If we take into account that Monumbo is also a Torricelli Phylum language, it seems hard to resist the conclusion that, for the north-east coast area at least, *sanguma* is a Torricelli Phylum invention.

In two papers (Laycock 1973, 1975) I have mentioned that the distribution of Torricelli Phylum languages in the East and West Sepik Provinces covers almost exactly the area of highest concentration of an extremely rare blood factor, Gerbich a- (Booth 1971), and have suggested that the factory may be associated genetically with speakers of Torricelli Phylum languages. There is no record of Gerbich a- associated with Torricelli Phylum languages outside the Sepik provinces – but it is at least worthy of remark that the main areas of the blood factor elsewhere do tend to coincide with reported instances of assault sorcery – whether *sanguma* or *vada*. Whether this is evidence of a former more widespread distribution of Torricelli Phylum languages, I am not sure.

The remaining remarks are even more tentative. Torricelli Phylum languages, with the exception of the Arapesh family, are almost entirely made up of hunter-gatherer populations, with little or no agriculture. They also have very little tradition of warfare or aggression – the Monumbo may be an exception to this, being reported as warlike. It may not be too far-fetched to suggest that the belief in the efficacy of *sanguma* is the result of a clever advertising campaign on the part of these hunter-gatherer populations, as a defence against their bigger (better-fed?) and more aggressive neighbours. And although I cannot at present cite chapter and verse, I have seen accounts of similar devastating sorcery attributed by their neighbours to other hunter-gatherer populations – the *orang asli* of Malaysia, the Kalahari desert people, and African pygmies. It may be a common defence mechanism; however, this explanation does not seem to account for the *vada* occurrences.

Also unresolved is how much the beliefs in *sanguma* reflect actual practice, and whether there is a secret organisation involved. The reports of Europeans who have spoken with both *sanguma* men and *sanguma* victims, and have witnessed the removal of needles from the body (I met in 1959 a European doctor in Ambanti who claimed to have surgically removed needles from a May River *sanguma* victim), suggest that some kind of assault sorcery does from time to time take place, though it may be rarer than local opinion would like to think. As for organisation, the fact that *sanguma* men are always reported to act in pairs or greater numbers would suggest some kind of contact between different *sanguma* men. Local belief around the Sepik is that *sanguma* men are initiated as such by such antisocial practices as the eating of corpses – and disinterment of corpses does occur in the Ilahita Arapesh area at least, as there were several occurrences (confirmed by both Don Tuzin and the local patrol officer) in 1970. (Tuzin however believes that the disinterment may have been associated with the Ilahita Arapesh practice of examining the bodies of the recently-dead for evidence or regular sorcery killing). In a recent letter, Otto Nekitel mentions the disinterment and eating of the flesh of dead babies in the Womsis area – but I do not yet know if this is fact or gossip.

From numerous conversations around the Sepik about *sanguma*, I myself am convinced that there are men who practice assault sorcery along traditional *sanguma* lines, and at least often enough to keep the stories about it alive. I think it very likely that they do – or did – belong to an organisation with initiation, and that, because of the essentially antisocial nature of *sanguma*, such initiation may well have involved such features as the eating of corpses. It is also interesting to note that the missionary Gehberger in 1952 reported that *sanguma* had been on the decline in his area (Wewak and inland) before World War II, but that it had

picked up again in the immediate postwar period. The disruption of a relatively stable – if changing – way of life during the war years may have played a part. Currently, *sanguma* is rarely reported as a problem in areas of strong government control, extensive missionisation, or economic progress; but it continues to be ascribed to the more ‘backward’ areas. From Otto Nekitel’s letters, it also seems to be active in areas of slower progress, in a spirit of what Tok Pisin speakers call ‘jeles’. I think stress situations are very conducive to the revival of *sanguma* – in perhaps much the same way that the Tolai ‘black magic’ society of Iniet was revived briefly during the Gazelle tax riots in the 1960s. However, I should perhaps go on record as saying that I do not believe that *sanguma* men can make themselves invisible, or cover enormous distances in a fraction of a second.

BIBLIOGRAPHY

- Bateson, Gregory**, 1931-32, Social structure of the Iatmul people of the Sepik. *Oceania* 2:245-291, 401-453.
1936, *Naven*. Cambridge: Cambridge University Press.
- Booth, P.B.**, 1971, A review of the Gerbich blood group system in Papua New Guinea. *Papua New Guinea Medical Journal* 14/3:74-76.
- Burridge, K.O.L.**, 1960, *Mambu: a Melanesian millennium*. London: Methuen.
1965, Tangu, Northern Madang District. In: P. Lawrence and M.J. Meggitt, eds. *Gods, ghosts and men in Melanesia*, 224-249. Melbourne: OUP.
- Evans-Pritchard, E.E.**, 1937, *Witchcraft, oracles and magic among the Azande*. Oxford: Clarendon Press.
- Fortune, Reo**, 1932, *Sorcerers of Dobu: the social anthropology of the Dobu Islanders of the Western Pacific*. New York: E.P. Dutton.
- Gehberger, John**, 1950, Aus dem Mythenschatz der Samap an der Nordküste Neuguineas. *Anthropos* 45:295-341, 733-778.
1952, *Missionary tells of sorcery and revived Sangguma*. PIM 22/11:33.
- Gerstner, A.**, 1937, Zauberei bei den But-Leuten an der Nordküste Neu-Guineas. *Anthropos* 32:967-973.
1952, Der Geisterglaube im Wewäk-Boikin-Gebiet, Nordost- Neuguinea. *Anthropos* 47:795-821.
1954-1955, Die glaubensmässige Einstellung der Wewäk-Boikin-Leute zu den Krankheiten und deren Heilung (Nordost-Neuguinea). *Anthropos* 49:460-480, 50:319-336.
1963, Der magische Meuchelmord im Wewäk-Boikin-Gebiet (Nordost-Neuguinea). *Anthropos* 58:719-736.
- Glick, Leonard B.**, 1972, ‘Sangguma’ sorcery and witchcraft. In Peter Ryan, ed. *Encyclopedia of Papua New Guinea*, 1029-1030, 1080-1082. Melbourne: University Press.
- Hoeltker, George**, 1940-41, Verstreute ethnographische Notizen über Neuguinea: eine Art Regestensammlung aus dem “Steyler Missionsbote” 1895-1941. *Anthropos* 35-36:1-67.
1941, Die Mambu-Bewegung in Neuguinea: ein Beitrag zum Prophetentum in Melanesien. *Annali lateranensi* 5:181-219.
1942-45, (Introduction to Koster 1942-45). *Anthropos* 35-36:1-67.
- Hogbin, Ian H.**, 1934-35, Native culture of Wogeo: report of field work in New Guinea. *Oceania* 5:308-337.
1935-36, Sorcery and administration. *Oceania* 6:1-32.
1947, Shame: a study of social conformity in a New Guinea village. *Oceania* 17:273-288.
1952-53, Sorcery and succession in Wogeo. *Oceania* 23:133-136.
1970, The island of menstruating men: religion in Wogeo, New Guinea. Scranton: Chandler.
- Hogbin, Ian H. and Camilla H. Wedgwood**, 1952-53, Local grouping in Melanesia. *Oceania* 23:241-276.
- Koster, G.J.**, 1942-1945, *Sangguma* of de sluipmoord op de noordostkust van Nieuw-Guinea. *Anthropos* 37-45:213-224.

- Laycock, D.C.**, 1973, Sepik languages: checklist and preliminary classification. *PL*, B-25.
 1975, The Torricelli Phylum. In S.A. Wurm, ed. *New Guinea area languages and language study*, vol. 1, 767-780. Canberra: *PL*, C-38.
- Lewis, Gilbert**, 1977, Fear of sorcery and the problem of death by suggestion. In John Blacking, ed. *The anthropology of the body*, 111-143. London: Academic Press.
 1980, *Day of shining red: an essay on understanding ritual*. Cambridge: Cambridge University Press.
- Martin, J.D.**, 1942, The Sangguma cult. *South Pacific* 6:461-463.
- Mead, Margaret**, 1935, *Sex and temperament in three primitive societies*. New York: Morrow.
 1938-1949, The mountain Arapesh. *Anthropological papers of the American Museum of Natural History* 36:139-349, 37:319-451, 40:163-232, 233-419, 41:289-390.
 1977, A re-examination of major themes of the Sepik area, Papua New Guinea. In Willis E. Sibley, ed. *Aspects of Oceanian cultures*. The Hague: Mouton.
- Meier, Joseph**, 1913, Die Zauberei bei den Küstenbewohnern der Gazelle-Halbinsel, Neupommern, Südsee. *Anthropos* 8:1-11, 285-305, 688-713.
- Middleton, John and E.H. Winter**, eds, 1963, *Witchcraft and sorcery in East Africa*. London: Routledge & Kegan Paul.
- Mihalic, Francis**, 1957, *Grammar and dictionary of Neo-Melanesian*. Techny: The Mission Press.
 1971, *The Jacaranda dictionary and grammar of Melanesian Pidgin*. Milton: Jacaranda Press.
- Mitchell, William E.**, 1975, Culturally contrasting therapeutic systems of the West Sepik: the Lujere. In T.R. Williams, ed. *Psychological Anthropology*, 409-439. The Hague: Mouton.
- Murray, J.H.P.**, 1912, *Papua or British New Guinea*. London: Fisher Unwin.
- Schebesta, J. and L. Meiser**, 1945, Dictionary of "Bisinis-English" (Pidgin-English). Mimeo (based on pre-war material), University of Armidale.
- Schmitz, Carl A.**, 1959, Todeszauber in Nordost-Neuguinea. *Paideuma* 7:35-67.
- Stanhope, John M.**, 1968-1969, Competing systems of medicine among the Rao-Breri, Lower Ramu River, New Guinea. *Oceania* 39:137-145.
 1980, The language of the Rao People, Grengabu, Madang Province, Papua New Guinea. *PL*, D-18.
- Tuzin, Donald F.**, 1976, *The Ilahita Arapesh: dimensions of unity*. Berkeley: University of California Press.
- Vormann, Franz**, 1910, Zur Psychologie, Religion, Soziologie und Geschichte der Monumbo-Papua, Deutsch-Neuguinea. *Anthropos* 5:407-418.
- Vormann, Franz and Wilhelm Scharfenberger**, 1914, *Die Monumbo-Sprache: Grammatik und Wörterverzeichnis*. Vienna: Anthropos Linguistische Bibliothek.
- Wedgwood, Camilla H.**, 1930-31, The nature and function of secret societies. *Oceania* 1:129-145.
 1934-35, Sickness and its treatment in Manam Island, New Guinea. *Oceania* 5:64-79.

CONTRASTIVE AND GRAMMATICALLY DEFINED TONE IN BARUYA

J.A. LLOYD

1. TONE ON WORDS AND PHRASES

1.1 INTRODUCTION

In the Baruya¹ language there are three basic stem tone patterns contrasting low-low, high-low and low-high on the last two syllables of single-root stems (§1.2). Compound stems are very common. A root may have only one high tone, but a stem or word may have more than one. The additional high tones result from perturbation between roots, between stems and suffixes or between words in a phrase. High tones do not occur on contiguous syllables within a word, but may occur on alternate syllables. They can occur on contiguous syllables across word boundaries.

After a low root, stem or word within a phrase, the first vowel of the following unit is perturbed to high. In noun compounds very often a syllable is dropped and its tone retained (§1.2). In verbs the basic perturbation rule is true for future tenses and most negatives. For non-future tenses there are three predictable rules, followed regardless of the number of roots or morphemes involved (§1.3).

High-tone syllables are also stressed (stress equals loudness) without appreciably affecting the inherent length of the vowels, which are approximately as follows: *aa*, *e* and *o* – two moras, *i* and *u* – one and a half moras, *a* – one mora, *i* – shorter. Other syllables are low (unmarked) and unstressed. They tend to be slightly higher before or after a high syllable. There is a non-contrastive utterance initial stress and semi-high tone. High tones vary in pitch depending on their position in word, phrase, clause, sentence and utterance (§2). High long vowels tend to glide down from the stressed onset.

Most nouns and verbs are compounds and may even combine noun and verb roots. The resulting compound in the latter case is usually a noun. Some roots do not occur elsewhere as single-root stems and it is sometimes difficult to ascertain their original meaning or form.

¹ The Baruya language (named after the dialect with the most speakers) is spoken by approximately 6,000 people living in the south-east corner of the Eastern Highlands Province of Papua New Guinea. The language belongs to the Angan language stock, so named by Richard Lloyd from *anga* 'house/village' which is cognate in all Angan languages and is included in the names of some of them. The grammatical terms, morphemes and their meanings in this paper are taken from R. Lloyd.

In verb compounds there are recurring partials which behave as roots except that they are never the first root and they never occur alone.

No sound machine or computer programme, other than word processor, was used to facilitate this analysis.

1.2 TONE ON NOUNS AND ADJECTIVES

See Appendix 1 for additional examples.

1.2.1 TONE PATTERNS ON SINGLE-ROOT STEMS

One-syllable stems have low tone.

- (1) a. *wia*² a plant
 b. *be* bird sp.

Two- and three-syllable stems contrast high and low tones on the last two syllables. Most two-syllable stems are low. Very few are high-low.

See Appendix 1 for more minimal and near-minimal two-syllable contrasts.

- (2) a. *naanga* big
 b. *naangá* older sister
 c. *báawe* victory plant
- (3) a. *tikurya* door
 b. *makaawé* circle
 c. *siróla* ant sp.

Four-syllable stems are all compounds and perturbation rules apply.³

1.2.2 TONE PERTURBATION ON NOUN COMPOUNDS

Noun stems end with a close-knit noun-marking syllable which behaves as part of the stem tonally. These morphemes are *-a*, *-ya*, *-ta*, *-na*, and *-ka*.⁴ In noun compounds the noun-

² The Baruya orthography is as follows: *a* [ɛ, ə, ɔ]; *aa* [a:]; *b* [mb]; *d* [nd]; *e* [ɛ:]; *g* [ŋg]; *h* [ɣ]; *i* [iː]; *ɨ* [ɨ, ɨ, ʊ]; *j* [nj]; *k* [k, k:]; *l*; *m*; *n*; *ng* [ŋ]; *o* [o:]; *p* [p, p:]; *r* [r, ɽ]; *s* [tɕ], [t:ɕ]; *t* [t, t:]; *th* [θ]; *u* [u]; *v* [b, β]; *w*; *y*; *z* [ʒ]; ³ [ʔ, p, t, k]. For *wia* see also Appendix 3(a).

³ High tone on the ultimate or penultimate syllable of a compound stem may result from perturbation but also fits one of the three basic stem patterns.

⁴ It is possible that basic noun roots ended in *i* as do verb roots, and that the tone of the dropped *i* occurs on the noun-marking syllable (see Appendix 1 for tone contrasts). However if *i* occurs between roots it is never high. No difference in meaning has been found between the noun markers. The only one now used when coining or borrowing a noun is *-ya*. Markers *-na* and *-ya* both occur following *m* and *n*, *-ya* may occur following *r* or *w*, but *-ta* and *-ka* also occur following glottal stop which has come from *r*, *w* or *v*. Similarly *-a* and *-ya* both occur following *l* and *ng*. Roots ending with *-ya* versus *-na*, or *-a* versus *-ya* and so on, appear to behave differently in compounding and close-knit suffixation but there are seeming inconsistencies, and insufficient examples are available to draw any definite conclusions (see introduction to Appendix 3 and examples in Appendix 3(b) to (g)).

<i>waanga</i>	fern
<i>bwaangya</i>	eagle

marking syllable is dropped from all but the final root, except that *-ya* is retained after *a* or *aa*. When the noun marker is dropped but a vowel is needed as transition between the two roots, *i* is introduced, as in example (8d). As a transition vowel it is never perturbed to high.

Noun markers *-a*, *-ya*, *-ta*, *-na*, and *-ka*:

- (4)a. *balánga*
bal(a)-anga
 female-house
 family house
- b. *aalyaaká*
aal(ya)-yaaka
 water-white
 muddy water
- c. *a'daanná*
ata-daanna < a'(ta)-daanga-na
 hand-pain-for
 clapping
 (see Appendix 3(f) and (g))
- d. *kidáata*
kinna-daata < kim(na)-daata
 cry-song
 song
 (see Appendix 3(g))
- e. *di'munyíka*
dika-munyika < di'(ka)-munyika
 firewood-small.pieces
 firewood chips
 (see Appendix 3(f))

When the noun-marking syllable is dropped its tone is retained and occurs on the first syllable of the following root. If the retained tone is high the first syllable of the following root becomes high, as in examples (5a) and (5b). If the retained tone is low the first syllable

<i>kwanna</i>	knee
<i>kwanya</i>	bird sp.
<i>kaanya</i>	going
<i>kannya</i>	
<i>kan-na-ya</i>	
?-for?-noun.marker	
skirt	
<i>kuramya</i>	callus
<i>yaawaryá</i>	pig
<i>wia</i>	plant
(see Appendix 3(a))	
<i>saainaka</i>	
<i>saal(a)-naka</i>	
salt-having	
salt-flavoured or containing salt	
<i>aalinaka</i>	
<i>aal(ya)-naka</i>	
water-having	
wet	

of the following root is low but the next syllable after that is perturbed to high, as in examples (4e) and (5c) to (5f). However, the first root retains its inherent tone, so if the last two syllables were high-low the next root is not perturbed to high, as in example (6). Perturbed tone takes precedence over inherent tone on a non-initial root, as in examples (7a) to (7c). The last two statements are true in verb compounds also, as in example (39d).

- (5)a. *bwakirivíta*
bwakiriká-yíta < bwakiriv(ká)-yíta
 warmth-tree
 poinsettia
 (see Appendix 3(b) and (h))
- b. *burisíviríta*
buriká-siviríta < burí'(ká)-siviríta
 rain-glow
 evening glow
- c. *bwaramunyá*
bwaranya-munya < bwaran(ya)-munya
 baby-stomach
 pregnant
 (see Appendix 3(g))
- d. *byaangwílá*
byaanna-wíla < byaang(na)-wíla
 light-rope
 rainbow
 (see Appendix 3(c))
- e. *bu'jenyá*
buta-jenya < bu'(ta)-jenya
 tadpole-circ
 frame of tadpole net
- f. *gurihinná*
gur(ya)-kinna
 cutting-sugar
 sugar sp.
 (see Appendix 3(k))
- g. *dí'múdinya*
dika-mudinya < dí'(ka)-mudinya
 fire/heat-heat
 heat
 (Note: this example is an exception; compare example (4e). The word *dika* means 'fire/firewood/heat' depending on context.)

Inherent tone on first root retained:

- (6) *daháaimwata*
daháal(a)-mwata
 joint-arrow
 type of arrow

Perturbed tone takes precedence over inherent tone on the second root:

- (7)a. *dilimáalika*
dil(ya)-maalíka
 ?-small
 mushroom sp.
- b. *baitháaya*
bal(a)-taayá
 female-girl
 wife
 (see Appendix 3(k))
- c. *kurawapáaya*
kure-wapaayá < kura(ya)-wapaayá
 banana-sweet.potato
 sweet potato sp.
 (see Appendix 3(e))

When the last vowel (only) of first root is dropped the tone of that vowel is not retained. The first syllable of the second root is perturbed to high, as in example (4a).

- (8)a. *saaigúla*
saal(a)-gula
 salt-gourd
 gourd used in salt making
 (see Appendix 3(d))
- b. *siwéka*
sil(a)-weka
 stone-sand
 pebbles
 (see Appendix 3(d))
- c. *maawídaanyá*
maang(a)-widaanyá
 mouth/tooth-?
 cheek
 (see Appendix 3(c))
- d. *maangi báala*
maang(a)-baala
 mouth/tooth-core
 banana sp.
 (see Appendix 3(g))
- e. *ammunné*
ang(a)-munné
 house-feast
 house building feast
 (Note: this is an exception to the above tone rule. The *mm* sequence is rare.)

Exception 1

When the penultimate syllable of the first root and the first syllable of the second root both have the nucleus *aa*, so that *aa* occurs in contiguous syllables (see Appendix 3(l)), then the perturbation to high in the second root occurs on the *aa* instead of on the next syllable along; compare examples (5c) to (5f).

- (9)a. *yaa'nyáanna*
yaaka-nyaanna < *yaa'(ka)-nyaanna*
 white-insect
 insect sp.
 (see Appendix 3(l))
- b. *yaa'máadinna*
yaaka-maadinna < *yaa'(ka)-maadinna*
 white-not.talking
 bird sp.

Exception 2

When the last consonant of the first root, after the noun marker has been dropped, amalgamates with the first consonant of the second root to form a voiced or voiceless stop, then although a syllable has been dropped, its tone is lost and the first syllable of the second root is perturbed to high, see example (4d) and compare examples (5c) to (5f). Incidentally, this confirms the analysis of preglottalised and prenasalised stops as complex units.

- (10) *dikwágila*
dika-kwagila < *dí'(ka)-kwagila*
 fire/heat-?
 perspiration
 (see Appendix 3(f))

Idiomatic compounds behave as units and have no high tone. Some are not recognised by Baruya speakers as including separate roots.

- (11)a. *lí'mugunya*
líka-mugunya < *lí'(ka)-mugunya*
 anus-mountain
 buttocks
- b. *kwaari'mata*
 knife
 (The underlying forms for this stem are unknown.)
- c. *kayaawarya*
kav(ya)-yaawarya
 bush-pig
 cassowary
 (see Appendix 3(b))
- d. *angilyáginya*
ang(a)-yil(i)-yaginya
 house-up-bone
 roof frame
 (see Appendix 3(h))

The suffixes *-ja* 'colour' and *-naka* 'having/characterised by' replace the noun marker. The first is perturbed to high after a low stem but the second is not.

- (12)a. *biwaa'já*
biwaaka-ja < *biwaa'(ka)-ja*
 blue.clay-colour
 blue
- b. *awí'ja*
awíta-ja < *awí'(ta)-ja*
 ginger-colour
 yellow
- c. *maannaka*
maang(a)-naka
 tooth-having
 having teeth

1.2.3 TONE ON NOUN CLITICS

After a stem ending low, the first vowel of the first clitic is perturbed to high, as in example (13b), except where that vowel is utterance final, as in example (13a). When the phrase marker *-ya* occurs after the stem it is not perturbed to high but the following clitic is, as in example (13b). Noun stems ending in a high tone plus the phrase marker *-ya* lose their high tone before *-yíro* 'be', as in example (14c). (For an explanation of abbreviations and symbols see Appendix 4.)

- (13)a. *kwatawo*
kwata-wo
 frog-F.SG.SUBJ
 frog sp.
- kwasawo*
kwat(a)-ya-wo
 frog-PHR-F.SG.SUBJ
 frog sp.
- b. *kwatawáalo*
kwata-waalo
 frog-F.DU.SUBJ
 two frogs
- kwasawáalo*
kwat(a)-ya-waalo
 frog-PHR-F.DU.SUBJ
 two frogs
- c. *Kwatasíro.*
kwat(a)-w(o)-yíro
 frog-F.SG.SUBJ-be
 It is a frog.

Kwasasíro.
kwat(a)-ya-w(o)-yíro
 frog-PHR-F.SG.SUBJ-be
 It is a frog.
 (see Appendix 3(i))

- (14)a. *kwatálo*
kwatá-lo
 basher-M.SG.SUBJ
 wood for bashing bark

kwasálo
kwat(á)-ya-lo
 basher-PHR-M.SG.SUBJ
 wood for bashing bark
- b. *kwatáraalo*
kwatá-raalo
 basher-M.DU.SUBJ
 two bark bashers

kwasáraalo
kwat(á)-ya-raalo
 basher-PHR-M.DU.SUBJ
 two bark bashers
- c. *Kwatályíro.*
kwatá-l(o)-yíro
 basher-M.SG.SUBJ-be
 It is a bark basher.

Kwasalyíro.
kwat(á)-ya-l(o)-yíro
 basher-PHR-M.SG.SUBJ-be
 It is a bark basher.

However the phrase marker *-ya* is perturbed to high before certain gender-shape clitics, as in examples (15d) to (15i), (16a) and (16b).

- (15)a. *yitalo*
yíta-lo
 tree-M.SG.SUBJ
 a big tree

yísalo
yít(a)-ya-lo
 tree-PHR-M.SG.SUBJ
 a big tree
- b. *yítawo*
yíta-wo
 tree-F.SG.SUBJ
 a round tree

yisawo
yit(a)-ya-wo
 tree-PHR-F.SG.SUBJ
 a round tree

- c. *Yitalyíro.*
yita-l(o)-yiro
 tree-M.SG.SUBJ-be
 It is a big tree.

Yisalyíro.
yit(a)-ya-l(o)-yiro
 tree-PHR-M.SG.SUBJ-be
 It is a big tree.

- d. *yitiko*
yit(a)-iko
 tree-N.SG.SUBJ
 a small tree

yisíko
yit(a)-y(a)-iko
 tree-PHR-N.SG.SUBJ
 a small tree

- e. *Yitikíro.*
yit(a)ik(o)-(y)-iro
 tree-N.SG.SUBJ-be
 It is a small tree.
 (see Appendix 3(m))

Yisíkiro.
yit(a)-y(a)-ik(o)-(y)iro
 tree-PHR-N.SG.SUBJ-be
 It is a small tree.

- f. *yitabáalo*
yita-baalo
 wood-CSG.SUBJ
 a curved stick

yisábaalo
yit(a)-ya-baalo
 wood-PHR-CSG.SUBJ
 a curved stick

- g. *Yitabályiro.*
yita-baal(o)-yiro
 wood-CSG.SUBJ-be
 It is a curved stick.

Yisábaalyíro.

yít(a)-ya-baal(o)-yíro

wood-PHR-C.SG.SUBJ-be

It is a curved stick.

h. *yítaríko*

yíta-ríko

wood-TSG.SUBJ

a stick

yisáríko

yít(a)-ya-ríko

wood-PHR-TSG.SUBJ

a stick

i. *Yítaríkíro.*

yíta-rik(o)-yíro

wood-TSG.SUBJ-be

It is a stick.

Yisárikíro.

yít(a)-ya-rik(o)-(y)íro

wood-PHR-TSG.SUBJ-be

It is a stick.

(16)a. *kinnawáko*

kinna-wako

sugar-TKSG.SUBJ

sugarcane

kinnyáwako

kinn(a)-ya-wako

sugar-PHR-TKSG.SUBJ

sugarcane

b. *Kinnawákíro.*

kinna-wak(o)-(y)íro

sugar-TKSG.SUBJ-be

It is sugarcane.

Kinnyáwakíro.

kinn(a)-ya-wak(o)-(y)íro

sugar-PHR-TKSG.SUBJ-be

It is sugarcane.

Many of the following clitics gain high tone according to the emphasis desired by the speaker. Pronoun clitics often take precedence. High tone on the clitic can even take precedence over stem-final high tone. The clitics are presented in their full form in the morpheme presentation as they would be if the word ended at that point. See Appendix 3(n).

(17)a. *A'mweinyí nyíjáama.*

a'mwé-l(o)-nyí(no) nyíjáama

person-M-me give.to.me

Give it to me, a man.

(see Appendix 3(n))

- b. *A'mweinyí* *bíwa*.
a'mwé-l(o)-ny(o) *biwa*
 person-M-I I.came
 I, a man, came.
 (Note that the commonly used form of *-nyo* is *-nyi*.)
- c. *A'mwéinyiro*.
a'mwé-l(o)-ny(o)-yiro
 person-M-I-be
 I am a man.
- (18)a. *Angéba* *mwáaimwa*.
anga-ya-ba(no) *mwáaimwa*
 house-PHR-place I.stayed
 I stayed at the village.
- b. *Angébanyiro*.
anga-ya-ban(o)-yiro
 house-PHR-place-be
 It is a village.
- c. *Angébanná* *bíwa*.
anga-ya-ban(o)-na(no) *bíwa*
 house-PHR-place-to I.came
 I came to the village.
- (19)a. *Mwanyagáa'* *bíwa*.
mwanya-gaa'(ko) *bíwa*
 morning-time I.came
 I came in the morning.
- b. *Mwanyagáakiro*.
mwanya-gaak(o)-(y)iro
 morning-time-be
 It is morning.
 (see Appendix 3(n))
- c. *Sawísagáa'* *bíwa*.
sawíta-ya-gaa'(ko) *bíwa*
 night-PHR-time I.came
 I came in the evening.
- (20)a. *Kwaari'masasí* *dá'mwa*.
kwaari'mat(a)-ya-w(o)-zi(no) *dá'mwa*
 knife-PHR-she-with I.cut
 I cut it with a knife.
- b. *A'mwesí* *walyíde*.
a'mwé-w(o)-zi(no) *walyíde*
 person-she-with I.will.go
 I will go with the woman.

- c. *A'mwelyí wawakáde.*
a'mwé-l(o)-yí(no) wawakáde
 person-he-with we.two.will.go
 I will go with the man.
- (21) *A'mweinyína wídáthe.*
a'mwé-l(o)-nyí(no)-na(no) wídáthe
 person-M-me-about he.will.say.to.him
 He will speak about me, a man.
- (22)a. *A'mweinyídaa'nyí bíma.*
a'mwé-l(o)-ny(o)-daa'nyí(no) bíma
 person-M-I-from I.will.come
 I, a man, will come first.
- b. *A'mwéinyídaa'nyí bíma.*
a'mwé-l(o)-ny(o)-daa'nyí(no) bíma
 person-M-I-from I.will.come
 I, a man, will come first.
- c. *Angébadáa'nyí bíwa.*
anga-ya-ba(no)-daa'nyí(no) bíwa
 house-PHR-place-from I.came
 I came from the village.
- (23)a. *A'mweinyíbi' jithéra.*
a'mwé-l(o)-ny(o)-bí'(ko) jithéra
 person-M-I-like you.will.do
 You will do it like me, a man.
- b. *A'mwéinyíbi' jithéra.*
a'mwé-l(o)-ny(o)-bí'(ko) jithéra
 person-M-I-like you.will.do
 You will do it like me, a man.
- c. *Anga'bí' wangámwa.*
anga-w(o)-bí'(ko) wangámwa
 house-she-like I.saw
 I saw something like a house.
- d. *Anga'bíkíro.*
anga-w(o)-bík(o)-(y)íro
 house-she-like-be
 It is like a house.
- (24)a. *A'mweinyíré' dímaa'.*
a'mwé-l(o)-ny(o)-re-w(o) dímaa'
 man-M-I-POSS-she take.it
 Take my, a man's, thing.
- b. *A'mwéinyíré' dímaa'.*
a'mwé-l(o)-ny(o)-re-w(o) dímaa'
 man-M-I-POSS-she take.it
 Take my, a man's, thing.

- c. *a'mwére'*
a'mwé-#-re-w(o)
 person-M-POSS-she
 belonging to the man
- d. *a'mwévire'*
a'mwé-vi(no)-re-w(o)
 person-her-POSS-she
 belonging to the woman
- e. *a'mwévidaa'nyi*
a'mwé-vi(no)-daa'nyi(no)
 person-her-from
 from the woman
- f. *A'mwéyaba* *dimwáalo.*
a'mwé-vi(no)-ya-ba(no) *dimwáalo*
 person-her-NOM/EMB-place sit.down
 Sit near the woman.
- g. *A'mwévi* *duzáa.*
a'mwé-vi(no) *duzáa*
 person-her give.it.to.him
 Give it to the woman.
- h. *A'mweví* *duzáa.*
a'mwé-vi(no) *duzáa*
 person-her give.it.to.him
 Give it to the woman.
- (25) *wilabáaibi'*
wila-baal(o)-bi'(ko)
 vine-C.SG-like
 like rope
- (26)a. *Neví* *duzáa.*
ne-vi(no) *duzáa*
 old.person-her give.it.to.him
 Give it to the old woman.
- b. *Nevína* *dutha.*
ne-vi(no)-na(no) *dutha*
 old.person-her-REF say.to.him
 Speak to the old woman./Speak to him about the old woman.

See Appendix 1 for clitics on adverbs, and nouns with identificational verbs.

1.2.4 TONE ON NOUN PHRASES

In Noun Phrases after a low word, if the first two syllables of the next word are low, the first syllable is perturbed to high.

- (27)a. *anga náangalo*
anga naanga-lo
 house big-he
 big house
Anga náangelyiro.
anga naanga-ya-l(o)-yiro
 house big-PHR-he-be
 It is a big house.
- b. *kaayé naangawo*
kaayé naanga-wo
 leaf big-she
 big edible leaf
Kaayé naangesíro.
kaayé naanga-ya-w(o)-yiro
 leaf big-PHR-she-be
 It is a big leaf.
- (28)a. *wabe maalíkawo*
wabe maalíka-wo
 small small-she
 very small
Wabe maalíkésíro.
wabe maalíka-ya-w(o)-yiro
 small small-PHR-she-be
 It is very small.
- b. *waabé maalíkawo*
waabé maalíka-wo
 cucumber small-she
 small cucumber
Waabé maalíkásíro.
waabé maalíka-w(o)-yiro
 cucumber small-she-be
 It is a small cucumber.
- (29)a. *anga kibawéwo*
anga kibawé-wo
 house medium-she
 medium house
Anga kibawésíro.
anga kibawé-w(o)-yiro
 house medium-she-be
 It is a medium house.
- b. *kaayé kibawéwo*
kaayé kibawé-wo
 leaf medium-she
 medium edible leaf

Kaayé kibawésiro.
kaayé kibawé-w(o)-yiro
 leaf medium-she-be
 It is a medium leaf.

1.3 TONE ON VERBS

See Appendix 2 for more examples.

Basic stems and tone patterns are taken from the Immediate Future tense, first person singular 'I will' or 'let me'.

1.3.1 TONE PATTERNS ON SINGLE-ROOT STEMS

One-syllable stems are all low:

- (30)a. *bi-* come
 b. *di-* say

Two-syllable stems have two patterns, with low-low the most common.

- (31)a. *laavi-* pull up
 b. *lingí-* thread through

Three-syllable stems which are not compounds are rare:

- (32) *wangáni-* see

Four-syllable stems and over are all compounds and perturbation rules apply.

1.3.2 TONE PERTURBATION ON VERB COMPOUNDS

After a low root the first syllable of the following root is perturbed to high. Some compound stems are idiomatic with no perturbed tone, as in example (34). Often a group of two or more roots acts as an idiomatic compound with low tone when another root or compound stem is added, so that the first syllable of the addition is perturbed to high if it follows the compound stem, as in example (35), and the first syllable of the compound stem is perturbed to high if the addition precedes it, as in example (36). Some roots, after morphophonemic changes, do not include a vowel so the tone perturbation moves on to the next root.

Recurring partials and two suffixes, as in example (33f) and (33g), behave as part of the stem though they are not actually roots. These never occur alone or as first root of a verb stem.

- (33)a. *-wagi* *pimwági-*
pi-m-wagi
 explode-TRANS-by.hand
 shoot gun
 b. *-vali* *dapáli-*
dav(i)-vali
 cut-firmly
 cut in halves

- c. *-mavi* *yesimávi-*
 yesí-mavi
 cut-?
 cut or shorten
- d. *-tavi* *gitávi-*
 gír(i)-tavi
 circle-?
 make loop
- e. *-puri* *woripúri-*
 worí(i)-puri
 cut.up-continue
 cut many pieces
- f. *-hi* *daakwí*
 daav(i)-h(i)-wí
 stand-cause-go
 drive in a post
- g. *-ni* *bwa'ni-*
 bwar(i)-ni
 smooth-self
 shave myself
- h. *-ni* *duvaini-*
 duval(i)-ni
 take.off-self
 take off my cape

(Note that the reflexive morpheme *-ni* is not perturbed to high, in contrast with *ni* 'eat' which can be, as in example (37c).)

Idiomatic compounds lacking high tone:

- (34)a. *mwaaihi-*
 mwaal(i)-hi
 sit-cause
 tie knot
- b. *liki-*
 liv(i)-hi
 take.up-cause
 dig

Last root perturbed to high:

- (35)a. *ginyibimwági-*
 ginyi-b(i)-yíl(i)-m-wagi
 turn-come-up-TRANS-by.hand
 turn knob
- b. *ginyima'nigwí-*
 ginyimá'ni-g-wí
 turn.self-TRANS-go
 cross ridge

- c. *gíra*ku'narí-
gírav(i)-h(i)-wir(i)-n(i)-(w)arí
 put.tog-cause-?-self-lie
 sleep close together
- d. *dathirawarí-*
dathiráv(i)-warí
 push-lie
 lean on two elbows
 (Note that *warí-* 'lie' gains high tone on the last instead of the first syllable in this position.)

Root added before compound stem and compound stem perturbed to high:

- (36)a. *yaváda'gali-*
y(i)-a-pada'gáli-
 do-and-do.well
 straighten
- b. *yaváda'galaki-*
y(i)-a-pada'gál(i)-(w)akí
 do-and-do.well-put
 pack away

Verb roots can be connected in five ways. If there is *i* or no vowel between, the two actions are simultaneous. The connecting vowel *a* means 'and' (sequential). Neither of these vowels is perturbed to high in this position.

- (37)a. *livídáakwí-*
livi-daakwí
 take.up-drive.in
 push stick through
 (Note that *daakwí-* is itself a compound comprised of *daavi-* 'stand', *-hi* 'cause' and *wi-* 'go'. It is a common stem and behaves as an idiomatic compound in the above example. The same is true of *makwí-* 'carry' in example (39d). It is comprised of *maari-* 'take', *-hi* 'cause' and *wi-* 'go'. See also Appendix 3(f)).
- b. *lí'míli-*
liv(i)-míli
 take.up-reap
 cut reeds
- c. *daní-*
d(i)-a-ni
 say-and-eat
 ask for food

The connecting vowel *e* means 'responsible', *aa* means 'movement/after' and *ma* means 'while moving/while'. These are all perturbed to high after a low root.

- (38)a. *divédaavi-*
div(i)-e-daavi
 poise.arrow-responsible-stand
 watch for

- b. *wíłáawí-*
wíl(i)-aa-wí
up-move-go
go up
- c. *wangámabí-*
wangán(i)-ma-bí
see-while-come
see while coming
- d. *nimábi'*
ní-ma-bí
eat-while-come
eat while coming

Examples with more than one link:

- (39)a. *wikayimýílaabi-*
wika yí-m(a)-yíl(i)-aa-bí
whistle do-while-up-move-come
whistle while coming up
- b. *yedákuravireni-*
y(i)-e-dakúr(i)-a-píraayi-ní-
do-responsible-cut-and-heat-self
be responsible for cutting and cooking meat for myself
- c. *ga'mijamaryaawí-*
ga'-mij(i)-a-mary(i)-aa-wí
cross-follow-and-around-move-go
chase all around
- d. *yiríwíkwásamákwi-*
yirív(i)-wí-kwa(a)s(i)-a-makwí
push-go-keep.on-and-carry
roll it along (See note on example (37a) and also Appendix (3(b).))
- e. *yewa'mwagalívi-*
yewa(a)'-m-wag(i)-a-lívi
wrap.around-TRANS-by.hand-and-take.up
pick up hot stones

Verb compounds behave as idiomatic compounds when they are nominalised. The nominalising suffix is then perturbed to high.

- (40)a. *baazi'ma'nyá*
baazi'má'n(i)-ya
put.on-NOM
shirt
- b. *bairígusá*
bal(a)-tígus(i)-ya
female-tie.knot-NOM
granny knot

1.3.3 TONE ON INFLECTED VERBS

The examples in this section are based on the following stems:

- (41)a. *yí-*
do
- b. *dí-*
say
- c. *líkí-*
dig
- d. *maarí-*
take
- e. *mubí-*
trade
- f. *bwakakí-*
bwari-hi-wakí
smooth-cause-put
cover
- g. *paihírí-*
pali-hi-írí
press-cause-?
tread on
- h. *baazí'má'ní-*
baazí'-mav(i)-ní
put.over-?-self
put a shirt on myself

It is quite difficult to find stems which show in what circumstances the stem tone is retained. In many verb forms the stem-final vowel which carries tone is dropped. Two-syllable stems end either in low or high. In many instances in the former case the following syllable is perturbed to high. In the latter case, if the final vowel is dropped the high tone then occurs on the following syllable. In addition some two syllable stems shorten to one syllable in many forms. Three or four syllable stems with high tone on the penultimate syllable are the best examples, although once again the last two syllables can be contracted to one. The four syllable example 'put on my shirt' shows when stem tone is retained as well as showing that compound verbs follow the same rules as do single root stems.

All verb stems (except irregular verbs – see Appendix 2) can be inflected. Alternatively they may occur as a phrase with a gerundive or infinitive form of the stem, with or without negative suffixes, followed by the inflected verb *-yí* 'do'. Some negative and question forms can be expressed only in this way (see Appendix 2).

- (42)a. *Paihíryá yíwano.*
paihír(i)-ya yíwano
tread-EMB I.did
I trod.

- b. *Paihi'ná yíwano.*
paihír(i)-na yíwano
 tread-REF I.did
 I trod.
- c. *Mavaihírya yíwano.*
ma-paihír(i)-(yi)-ya yíwano
 NEG-tread-do-EMB I.did
 I did not tread.
- d. *Mavaihíri yíwano.*
ma-paihír(i)-yi yíwano
 NEG-tread-do I.did
 I did not tread.

The Present Complete tense is used to represent all Non-future Tenses in this paper, except for example (65). All have been found to follow the same tone rules. The first person singular subject is used to represent all subject person-number forms except for command forms, as in examples (43) to (47). The others have been found to follow the same tone rules. Some paradigms which may be built on the basic conjugations presented in this paper are included in Appendix 2. They follow the same tone rules as the forms presented in the paper.

When there are two verbs in an example, the first is the one being illustrated.

1.3.3.1 RULE 1

On Future and Immediate Future forms the stem tone is retained and the first suffix is perturbed to high after a low stem. When the future suffix is manifested as one syllable the perturbation occurs on the syllable preceding the suffix rather than on the suffix itself (which would be the last syllable of the sentence), as in example (44b), except following one syllable stems, as in example (43b). Similarly on command forms high tone occurs on the stem rather than on the final syllable. Command forms are second person in the Immediate Future set.

- (43)a. *Dímo.*
dí-mo
 say-I.will.now
 I will speak.
- b. *Didé.*
dí-m(o)-de(ro)
 say-I.will-fut
 I will speak.
- c. *Didéro.*
dí-m(o)-dero
 say-I.will-fut
 I will speak.

- d. *Ditháno.*
dí-d(i)-ano
 COM-say-SG.COM
 You speak.
 - e. *Dizílo.*
dí-d(i)-yílo
 COM-say-PL.COM
 You all speak.
 - f. *Dinehizílo.*
dí-nehi-d(i)-yílo
 COM-to.us.2-say-PL.COM
 You all speak to us two.
- (44)a. *Líkimo.*
líki-mo
 dig-I.will.now
 I will dig.
- b. *Líkíde.*
líki-m(o)-de(ro)
 dig-I.will-FUT
 I will dig.
 - c. *Líkidéro.*
líki-m(o)-dero
 dig-I.will-FUT
 I will dig.
 - d. *Dílikyo.*
dí-lik(i)-yo
 COM-dig-SG.COM
 You dig.
 - e. *Dílikyílo.*
dí-lik(i)-yílo
 COM-dig-PL.COM
 You all dig.
- (45)a. *Mubímo.*
mubí-mo
 trade-I.will.now
 I will trade.
- b. *Mubíde.*
mubí-m(o)-de(ro)
 trade-I.will-FUT
 I will trade.
 - c. *Mubídero.*
mubí-m(o)-dero
 trade-I.will-FUT
 I will trade.

- d. *Dimúbyo.*
di-mub(i)-yo
 COM-trade-COM.SG
 You trade.
 - e. *Dimubyílo.*
di-mub(i)-yílo
 COM-trade-PL.COM
 You all trade.
- (46)a. *Paihírímo.*
paihírí-mo
 tread-I.will.now
 I will tread on it.
- b. *Paihíríde.*
paihírí-m(o)-de(ro)
 tread-I.will-FUT
 I will tread on it.
 - c. *Paihírídero.*
paihírí-m(o)-dero
 tread-I.will-FUT
 I will tread on it.
 - d. *Divaihíko.*
di-paihírí-ko
 COM-tread-COM.SG
 You tread on it.
 - e. *Divaihírilo.*
di-paihír(i)-yílo
 COM-tread-PL.COM
 You all tread on it.
- (47)a. *Baazi'má'nímo.*
baazi'má'ní-mo
 put.on-I.will.now
 I will put on my shirt.
- b. *Baazi'má'níde.*
baazi'má'ní-m(o)-de(ro)
 put.on-I.will-FUT
 I will put on my shirt.
 - c. *Baazi'má'nídero.*
baazi'má'ní-m(o)-dero
 put.on-I.will-FUT
 I will put on my shirt.
 - d. *Divaaazi'má'nano.*
di-baazi'má'n(i)-ano
 COM-put.on-SG.COM
 You put on your shirt.

- e. *Divaaazi'má'nyilo.*
di-baazi'má'n(i)-yilo
 COM-put.on-PL.COM
 You all put on your shirts.

See Appendix 2 for Irregular Command forms and Future verb forms with Dependent Marker.

On Immediate Future Interrogatives (example (48)), and Dubitatives (example (49)), Unreal⁵ Result Subjunctives (example (50)), and most Negatives (except Negative Future Same Subject Sequential (Rule 2, example (54)), Negative Same Subject Simultaneous (Rule 2, example (57)) and Negative Non-future Same Subject Sequential (Rule 3, example (67))), the stem tone is retained and the suffix is perturbed to high after a low stem.

Immediate Future Interrogative:

- (48)a. *Díjjiwano?*
di-m(o)-d(a)-yi-w-ano
 say-I.will-INTER-do-PRES.COMP-I
 Will I say it?
- b. *Mubíjjiwano?*
mubí-m(o)-d(a)-yi-w-ano
 trade-I.will-INTER-do-PRES.COMP-I
 Will I trade?
- c. *Bwakakíjjiwano?*
bwakakí-m(o)-d(a)-yi-w-ano
 cover-I.will-INTER-do-PRES.COMP-I
 Will I cover it?
- d. *Paihíríjjiwano?*
paihírí-m(o)-d(a)-yi-w-ano
 tread-I.will-INTER-do-PRES.COMP-I
 Will I tread on it?
- e. *Baazi'má'níjjiwano?*
baazi'má'ní-m(o)-d(a)-yi-w-ano
 put.on-I.will-INTER-do-PRES.COMP-I
 Will I put my shirt on?

Immediate Future Dubitative:

- (49)a. *Mubíjjihiwano.*
mubí-m(o)-jih(i)-yi-w-ano
 trade-I.will-DUB-do-PRES.COMP-I
 Perhaps I will trade.
- b. *Paihíríjjihiwano.*
paihírí-m(o)-jih(i)-yi-w-ano
 tread-I.will-DUB-do-PRES.COMP-I
 Perhaps I will tread on it.

⁵ R. Lloyd uses the term Unreal to mean Contrary to Fact.

See Appendix 2 for Future Interrogative and Dubitative forms.

Unreal Result Subjunctive:

- (50)a. *Kadiwídiko.*
ka-di-wi-diko
 UNREAL-say-I.SUBJN-result
 I would have said it but didn't.
- b. *Kamubíwidiko.*
ka-mubí-wi-diko
 UNREAL-trade-I.SUBJN-result
 I would have traded but didn't.
- c. *Kabwakakíwidiko.*
ka-bwakakí-wi-diko
 UNREAL-cover-I.SUBJN-result
 I would have covered it but didn't.
- d. *Kavaihi' mwidiko.*
ka-paihi'(i)-m-wi-diko
 UNREAL-tread-TRANS-I.SUBJN-result
 I would have trodden on it but didn't.
- e. *Kabaazi'má'niwidiko.*
ka-baazi'má'ni-wi-diko
 UNREAL-put.on-I.SUBJN-result
 I would have put my shirt on but didn't.

Negative Non-future:

- (51)a. *Mujíwano.*
m(a)-wi-d(i)-yi-w-ano
 NEG-him-say-do-PRES.COMP-I
 I didn't speak to him.
- b. *Myíwano.*
m(a)-yi-w-ano
 NEG-do-PRES.COMP-I
 I didn't do it.
- c. *Mamubyíwano.*
ma-mub(i)-yi-w-ano
 NEG-trade-do-PRES.COMP-I
 I didn't trade.
- d. *Mabwakakyíwano.*
ma-bwakak(i)-yi-w-ano
 NEG-cover-do-PRES.COMP-I
 I didn't cover it.
- e. *Mavaihi'riwano.*
ma-paihi'(i)-yi-w-ano
 NEG-tread-do-PRES.COMP-I
 I didn't tread on it.

- f. *Mabaazi'má'nyiwano.*
ma-baazi'má'n(i)-yi-w-ano
 NEG-put.on-do-PRES.COMP-I
 I didn't put my shirt on.

See Appendix 2 for other Negatives, Future Nominalised/Embedded forms, and Identificational forms.

1.3.3.2 RULE 2

Dependent verbs do not retain stem tone patterns, except for Non-future Same Subject Sequential (Rule 3, example (66)) and Negatives (Rule 1, example (51)). This includes Negative Future Same Subject Sequential, as in example (54), and Negative Same Subject Simultaneous, as in example (57), Non-future Interrogative, as in example (60), and Undesired Result Subjunctive, as in example (63). The stem is low and the first suffix is perturbed to high.

Future Change of Subject Simultaneous:

- (52)a. *Dádaa'muji* *dáthe.*
d(i)-ad-aaw-m-wi-ji *dathe*
 say-DUR-DYN-TRANS-I-DEP he.will.say
 While I will speak he will speak.
- b. *Mubádaa'muji* *daaváde.*
mub(ɛ)-ad-aaw-m-wi-ji *daaváde*
 trade-DUR-DYN-TRANS-I-DEP he.will.stand
 While I will trade he will stand.
- c. *Bwakakádaa'muji* *dítháaka.*
bwakak(ɛ)-ad-aaw-m-wi-ji *dítháako*
 cover-DUR-DYN-TRANS-I-DEP you.stand
 While I will cover it you stand there.
- d. *Baazi'ma'nádaa'muji* *dímwaalo.*
baazi'má'n(i)-ad-aaw-m-wi-ji *dímwaalo*
 put.on-DUR-DYN-TRANS-I-DEP sit.down
 While I will put on my shirt you sit down.

Future Same-Subject Sequential:

- (53)a. *Dá'muji* *widéro.*
d(i)-aw-m-wi-ji *widéro*
 say-SEQ-TRANS-I-DEP I.will.go
 After I speak I will go.
- b. *Mubá'muji* *widéro.*
mub(ɛ)-aw-m-wi-ji *widéro*
 trade-SEQ-TRANS-I-DEP I.will.go
 After I trade I will go.

- c. *Bwakaká' muji mwaalíde.*
bwakak(i)-aw-m-wi-ji mwaalíde
 cover-SEQ-TRANS-I-DEP I.will.sit
 After I cover it I will sit down.
- d. *Paihirá' muji wíde.*
paihir(i)-aw-m-wi-ji wíde
 tread-SEQ-TRANS-I-DEP I.will.go
 After I tread on it I will go.
- e. *Baazi'ma'ná' muji wíde.*
baazi'má'n(i)-aw-m-wi-ji wíde
 put.on-SEQ-TRANS-I-DEP I.will.go
 After I put my shirt on I will go.

Negative Future Same-Subject Sequential:

- (54)a. *Majá' muji wíde.*
ma-d(i)-y(i)-aw-m-wi-ji wíde
 NEG-say-do-SEQ-TRANS-I-DEP I.will.go
 After I do not speak I will go.
- b. *Mamubyá' muji wíde.*
ma-mub(i)-y(i)-aw-m-wi-ji wíde
 NEG-trade-do-SEQ-TRANS-I-DEP I.will.go
 After I do not trade I will go.
- c. *Mabwakakyá' muji daavíde.*
ma-bwakak(i)-y(i)-aw-m-wi-ji daavíde
 NEG-cover-do-SEQ-TRANS-I-DEP I.will.stand
 After I do not cover it I will stand.
- d. *Mavaihiryá' muji wíde.*
ma-paihir(i)-y(i)-aw-m-wi-ji wíde
 NEG-tread-do-SEQ-TRANS-I-DEP I.will.go
 After I do not tread on it I will go.
- e. *Mabaazi'ma'nyá' muji dáva mwaalíde.*
ma-baazi'má'n(i)-y(i)-aw-m-wi-ji dáva mwaalíde
 NEG-put.on-do-SEQ-TRANS-I-DEP here I.will.stay
 After I do not put on my shirt I'll sit here.

Future Sequential with Change of Subject:

- (55)a. *Kamubá' muji dínyidano.*
ka-mub(i)-aw-m-wi-ji dínyidano
 CS-trade-SEQ-TRANS-I-DEP tell.me
 After I trade tell me.
- b. *Kavaihirá' muji dímwáalo.*
ka-paihir(i)-aw-m-wi-ji dímwáalo
 CS-tread-SEQ-TRANS-I-DEP sit.down
 After I tread on it sit down.

Same-Subject Simultaneous:

- (56)a. *Dádi wangánide.*
d(i)-ad-i wangánide
 say-DUR-I I.will.see
 While I speak I will watch.
- b. *Mubádi dǎa'mwano.*
mub(i)-ad-i dǎa'mwano
 trade-DUR-I I.stood
 While I traded I stood.
- c. *Bwakakádi mwaalíde.*
bwakak(i)-ad-i mwaalíde
 cover-DUR-I I.will.sit
 While I cover it I will sit down.
- d. *Paihf'ǎdi wangámwa.*
paihf(i)-(a)d-i wangámwa
 tread-DUR-I I.saw
 While I trod on it I watched.
- e. *Baazi'ma'nádi yenníwano.*
baazi'má'n(i)-ad-i yenníwano
 put.on-DUR-I I.looked.at.myself
 While I put on my shirt I looked at myself.

Negative Same-Subject Simultaneous:

- (57)a. *Majádi mwaalíde.*
ma-d(i)-y(i)-ad-i mwaalíde
 NEG-say-do-DUR-I I.will.sit
 While not speaking I will sit.
- b. *Mamubyádi wangámwa.*
ma-mub(i)-y(i)-ad-i wangámwa
 NEG-trade-do-DUR-I I.saw
 While not trading I watched.
- c. *Mabwakakyádi díwana.*
ma-bwakak(i)-y(i)-ad-i díwana
 NEG-cover-do-DUR-I I.spoke
 While not covering it I talked.
- d. *Mavaihiryádi dǎa'mwa.*
ma-paihf(i)-y(i)-ad-i dǎa'mwa
 NEG-tread-do-DUR-I I.stood
 While not treading on it I stood.
- e. *Mabaazi'ma'nyádi líka yíde.*
ma-baazi'má'n(i)-y(i)-ad-i líka yíde
 NEG-put.on-do-DUR-I fear I.will.do
 While not putting on my shirt I will be afraid.

Non-future with Change of Subject (Sequential):

- (58)a. *Kadiwá* *mwáimwaa.*
ka-di-w-a(no) *mwáimwaa*
 CS-say-PRES.COMP-I you.sat
 I spoke and you sat.
- b. *Kamubiwá* *nyijáwaa.*
ka-mubí-w-a(no) *nyijáwaa*
 CS-trade-PRES.COMP-I you.gave.it.to.me
 I traded and you gave it to me.
- c. *Kabwakakiwá* *wasí'niwaa.*
ka-bwakakí-w-a(no) *wasí'niwaa*
 CS-cover-PRES.COMP-I you.threw
 I covered it and you threw it away.
- d. *Kavaihi'mwá* *mwáimwaa.*
ka-paihir(i)-m-w-a *mwáimwaa*
 CS-tread-TRANS-PRES.COMP-I you.sat
 I trod on it and you sat.
- e. *Kabaazi'ma'niwá* *mwáimwaa.*
ka-baazi'má'ni-w-a(no) *mwáimwaa*
 CS-put.on-PRES.COMP-I you.sat
 I put my shirt on and you sat.

Non-future Change of Subject Simultaneous:

- (59)a. *Dádaazi* *divániko.*
d(i)-ad-aa(w)-ji *divániko*
 say-DUR-DYN.I-DEP he.is.saying
 While I speak he is speaking.
 (Note: The *w* in *-aaw* has been lost and *ji* becomes *zi*. This shows the only difference between 'I' and 'he', as in (b) below.)
- b. *Dádaasi...*
d(i)-ad-aaw-#-ji
 say-DUR-DYN-he-DEP
 While he says...
 (Note: The *w* in *-aaw* becomes glottal, *ji* becomes *zi* and the combination of the two is *si*.)
- c. *Mubádaazi* *mwáimwaa.*
mub(i)-ad-aa(w)-ji *mwáimwaa*
 trade-DUR-DYN.I-DEP you.sat
 While I traded you sat.
- d. *Bwakakádaazi* *divániko.*
bwakak(i)-ad-aa(w)-ji *divániko*
 cover-DUR-DYN.I-DEP he.is.saying
 While I cover it he is talking.

- e. *Paihi' daazi* *kinna diváni'.*
paihi'(i)-(a)d-aa(w)-ji *kinna diváni'*
 tread-DUR-DYN.I-DEP cry he.is.saying
 While I tread on it he is crying.
- f. *Baazi'ma'nádaazi* *kinna diváni'.*
baazi'má'n(i)-ad-aa(w)-ji *kinna diváni'*
 put.on-DUR-DYN.I-DEP cry he.is.saying
 While I put my shirt on he is crying.

Non-future Interrogatives:

- (60)a. *Dathiwáano?*
da-di-w-aano
 INTER-say-PRES.COMP-you
 Did you speak?
- b. *Damubiwáano?*
da-mubí-w-aano
 INTER-trade-PRES.COMP-you
 Did you trade?
- c. *Davwakakiwáano?*
da-bwakakí-w-aano
 INTER-cover-PRES.COMP-you
 Did you cover it?
- d. *Davaihi'mwáano?*
da-paihi'r(i)-m-w-aano
 INTER-tread-TRANS-PRES.COMP-you
 Did you tread on it?
- e. *Davaazi'ma'niwáano?*
da-baazi'má'ni-w-aano
 INTER-put.on-PRES.COMP-you
 Did you put your shirt on?

Real Conditional Subjunctive:

The Real Conditional Subjunctive form is always nominalised/embedded. When the stem is monosyllabic, high tone occurs on the stem rather than on the first syllable of the suffix. The final syllable of the word gains a high tone after a low syllable, as in example (61a).

- (61)a. *Díwíjǎ'* *maanga nyidáthe.*
dí-wi-j(i)-(y)a- *maanga nyidáthe*
 say-I.SUBJN-DEP-EMB-she anger he.will.say.to.me
 If I say it he will be angry with me.
- b. *Mubíwíjǎ'* *maanga nyidáthe.*
mubí-wi-j(i)-(y)a- *maanga nyidáthe*
 trade-I.SUBJN-DEP-EMB-she anger he.will.say.to.me
 If I trade he will be angry with me.

- c. *Bwakakiwíja'* *yílaayá yáde.*
bwakakí-wi-j(i)-(y)a- *yílaayá yáde*
 cover-I.SUBJN-DEP-EMB-she happy she.will.do
 If I cover it she will be pleased.
- d. *Paihi'múja'* *maanga nanyidípika.*
paihi(i)-m-wi-j(i)-(y)a- *maanga nanyidípika*
 tread-TRANS-I.SUBJN-DEP-EMB-she anger not.good.if.they.say.to.me
 If I tread on it it would not be good if they are angry with me.
- e. *Baazi'ma'niwíja'* *nimírè a'mwéi yílaayá yáde.*
baazi'ma'ni-wi-j(i)-(y)a- *nimírè a'mwéi yílaayá yáde*
 put.on-I.SUBJN-DEP-EMB-she my man happy he.will.do
 If I put my shirt on my man will be pleased.

Unreal Conditional Subjunctive:

- (62)a. *Díwíji* *kwáji* *tewáanna kwarádi'.*
di-wi-ji *k(a)-w(i)-a-ji* *tewáanna kwarádi'*
 say-I.SUBJN-DEP UNREAL-go-it-DEP goodly he.would.have.lain
 If I had spoken it would have been all right.
- b. *Mubiwíji* *kwáji* *kágizaawídiko.*
mubí-wi-ji *kwáji* *kagizaawídiko*
 trade-I.SUBJN-DEP UNREAL I.would.have.given.to.you
 If I had traded I would have given it to you.
- c. *Paihi'mwíji* *kwáji* *tíka kányidavádika.*
paihi(i)-m-wi-ji *kwáji* *tika kanyidavádika*
 tread-TRANS-I.SUBJN-DEP UNREAL bite he.would.have.cut.me
 If I had trodden on it it would have bitten me.
- d. *Bwakakiwíji* *kwáji* *tewaanya kwarádi'.*
bwakakí-wi-ji *kwáji* *tewaanya kwarádi'*
 cover-I.SUBJN-DEP UNREAL good it.would.have.lain
 If I had covered it it would have been all right.
- e. *Baazi'ma'niwíji* *kwáji* *nawí'nyá kwarádi'.*
baazi'ma'ni-wi-ji *kwáji* *nawí'nyá kwarádi'*
 put.on-I.SUBJN-DEP UNREAL beautiful it.would.have.lain
 If I had put on my shirt it would have been beautiful.

In longer words employing the Undesired Result Subjunctive the high tone occurs on the syllable before the first suffix, as in examples (63c) and (63e).

- (63)a. *Nadiwídiko.*
na-di-wi-diko
 UNDES-say-I.SUBJN-result
 It will be undesirable if I talk.
- b. *Namubiwídiko.*
na-mubí-wi-diko
 UNDES-trade-I.SUBJN-result
 It will be undesirable if I trade.

- c. *Nabwakakíwidiko.*
na-bwakakí-wi-diko
 UNDES-cover-I.SUBJN-result
 It will not be good if I cover it.
- d. *Navaihi'mwídiko.*
na-paihi-ri-m-wi-diko
 UNDES-tread-TRANS-I.SUBJN-result
 It will be undesirable if I tread on it.
- e. *Nabaazi'ma'níwidiko.*
na-baazi'má-ni-wi-diko
 UNDES-put.on-I.SUBJN-result
 It will be undesirable if I put my shirt on.

See Appendix 2 for Infinitives, Gerunds, forms with Dependent Markers, Nominalised/Embedded forms, and Identificational Non-future with Change of Subject.

1.3.3.3 RULE 3

Non-future Tenses all have predictable high tone on the second syllable of the word only, even if that is part of a prefix, regardless of the length of stem and how many roots are involved. If the stem or stem plus object prefixes is manifested as one syllable and the suffixes are together no longer than two syllables, high tone occurs on the stem rather than the second syllable of the word, as is example (64a).

Present Complete:

- (64)a. *Díwano.*
dí-w-ano
 say-PRES.COMP-I
 I said it.
- b. *Mubíwano.*
mubí-w-ano
 trade-PRES.COMP-I
 I traded.
- c. *Bwakákíwano.*
bwakakí-w-ano
 cover-PRES.COMP-I
 I covered it.
- d. *Paihi'mwano.*
paihi-ri-m-w-ano
 tread-TRANS-PRES.COMP-I
 I trod on it.
- e. *Baazi'ma'niwano.*
baazi'má-ni-w-ano
 put.on-PRES.COMP-I
 I put on my shirt.

- f. *Githíwano.*
gi-di-w-ano
 to.you-say-PRES.COMP-I
 I spoke to you.
- g. *Yihíthiwano.*
yihí-di-w-ano
 to.you.two-say-PRES.COMP-I
 I spoke to you two.
- h. *Yihímaa'mwano.*
yihí-maar(i)-m-w-ano
 for.you.two-take-TRANS-PRES.COMP-I
 I took it for you two.

Stative, Present Incomplete and Past forms:

- (65)a. *Díheno.*
dí-g-eno
 say-STAT-I
 I am in the state of speaking.
Bwakákigeno.
bwakakí-g-eno
 cover-STAT-I
 I am in the state of covering.
- b. *Divánigeno.*
dí-vanig-eno
 say-PRES.INCOMP-I
 I am speaking.
Bwakákivanigeno.
bwakakí-vanig-eno
 cover-PRES.INCOMP-I
 I am covering it.
- c. *Jawáaiheno.*
d(i)-yawaaiah-eno
 say-NEAR.PAST-I
 I spoke.
Bwakákyawaaiaheno.
bwakak(i)-yawaaiah-eno
 cover-NEAR.PAST-I
 I covered it.
- d. *Diwá'deno.*
dí-wa'd-eno
 say-RECENT.PAST-I
 I spoke.

Bwakákiwa'deno.
bwakakí-wa'd-eno
 cover-RECENT.PAST-I
 I covered it.

- e. *Jawályaadeno.*
d(i)-yawalyaad-eno
 say-MID.PAST-I
 I spoke.

Bwakákyawalyaadeno.
bwakak(i)-yawalyaad-eno
 cover-MID.PAST-I
 I covered it.

- f. *Déno. / Dáhenó.*
d(i)-eno/ageno
 say-I.GENERAL.PAST
 I spoke.

Bwakákeno. / Bwakákageno.
bwakak(i)-eno/ageno
 cover-I.GENERAL.PAST
 I covered it.

- g. *Jáano.*
d(i)-yaano
 say-I.FAR.PAST
 I spoke.

Bwakákyaaano.
bwakak(i)-yaano
 cover-I.FAR.PAST
 I covered it.

Non-future Same-Subject Sequential:

- (66)a. *Múbena* *bíwa.*
mubí-en(o)-a(no) *bíwa*
 trade-I.PAST-SS.SEQ I.came
 I traded and came.
- b. *Paihírena* *bíwa.*
paihíri-en(o)-a(no) *bíwa*
 tread-I.PAST-SS.SEQ I.came
 I trod on it and came.

Negative Non-future Same-Subject Sequential:

- (67)a. *Mí'na yíwano déna* *mwáaimwano.*
mí'na yíwano d(i)-en-a *mwáaimwano.*
 finish I.did say-I.PAST-SS.SEQ I.sat
 I thought "I finished doing it", and sat down.

- b. *Mamúbyena* *bíwano.*
ma-mub(i)-y(i)-en-a *bíwano*
 NEG-trade-do-I.PAST-SS.SEQ I.came
 I did not trade and I came.
- c. *Magímubyena* *bíwano.*
ma-gi-mub(i)-y(i)-en-a *bíwano*
 NEG-you-trade-do-I.PAST-SS.SEQ I.came
 I did not trade for you and I came.
- d. *Maváihiryena* *bíwa.*
ma-paihr(i)-y(i)-en-a *bíwa*
 NEG-tread-do-I.PAST-SS.SEQ I.came
 I did not tread on it and I came.
- e. *Mabáazi'ma'nyena* *bíwa.*
ma-baazi'má'n(i)-y(i)-en-a *bíwa*
 NEG-put.on-do-I.PAST-SS.SEQ I.came
 I did not put my shirt on and I came.

See Appendix 2 for Present Complete with Dependent Marker and Question words with non-future verbs.

1.3.3.4 RULE 4

Non-future Dubitatives have high tone on the first syllable after the dubitative prefix.

- (68)a. *Dahadíwano.*
daha-di-w-ano
 DUB-say-PRES.COMP-I
 I may have said it.
- b. *Dahamúbíwano.*
daha-mubí-w-ano
 DUB-trade-PRES.COMP-I
 I may have traded it.
- c. *Dahabwákakiwano.*
daha-bwakakí-w-ano
 DUB-cover-PRES.COMP-I
 I may have covered it.
- d. *Dahaváihí'mwano.*
daha-paihr(i)-m-w-ano
 DUB-tread-TRANS-PRES.COMP-I
 I may have trodden on it.
- e. *Dahabáazi'ma'níwano.*
daha-baazi'má'ni-w-ano
 DUB-put.on-PRES.COMP-I
 I may have put on my shirt.

See Appendix 2 for Non-future Dubitative with Dependent Marker.

1.4 CONCLUSION

Although there are minimal contrasts, most high tone results from perturbation. Between roots, between stem and suffix, and between words in a phrase, after a low tone the first vowel of the next unit is perturbed to high. When a syllable is lost between roots in nouns, the tone is retained and occurs on the first syllable of the next morpheme. In nouns if the tone of the lost syllable is low, it occurs on the first syllable of the next root and the following syllable is perturbed to high. In verbs the stem tone is retained in Future, Negative and Unreal Subjunctive forms (mainly) and there are rules for tone behaviour on other forms as described in §1.3. These rules apply no matter how many roots are incorporated in a compound stem. Morphophonemic changes, connectives between roots, and tone on verb compounds (Rules 2 to 4) are three of the criteria proving that these are not serial verbs.

2. STRESS AND INTONATION⁶

2.1 INTRODUCTION

Final and non-final intonation occur on the last syllable of a clause or sentence. High tone on words (§1) incorporates stress, but mid and high intonation are not stressed. High intonation may occur on a high-tone syllable and is then stressed.

There is a downward drift throughout all discourses. Within this downward drift sentences may begin a little higher than the end of the previous one and paragraphs may begin noticeably higher than the end of the preceding paragraph. Alternatively the first few words of a sentence or paragraph may begin low and gradually become higher and louder. Therefore the following statements concerning intonation and phrase, clause and sentence stress are true relative to the downward drift of the whole discourse. In conversations the second speaker usually begins a syllable or two before the first speaker finishes. The content and general intonation tells the second speaker that the first is finishing that particular utterance. Non-silent pauses occur when a speaker wishes to continue (§2.3). One gets the impression that other speakers are always ready to interrupt.

2.2 PHRASE, CLAUSE, SENTENCE AND PARAGRAPH STRESS

Phrase stress occurs on the high tone of the central word in the phrase or the first word past the centre. It is louder and higher in pitch than other high tones. The phrase stress is the first in the word marked PhS in each example.

- | | | |
|--------|----------------------------|-------------|
| (69)a. | <i>a'mwé náanga Saasái</i> | noun phrase |
| | PhS | |
| | man big the.Saasa | |
| | <i>díwa'</i> | verb |
| | PhS | |
| | he.said | |

⁶ The data on which this analysis is based comprises twelve transcribed texts of various lengths, plus solicited utterances. The paper was first written by hand in 1964–1965 by the present author.

- kaimíraaya sikulibóyaraavi* H noun phrase
 PhS
 child to.the.school.boys
 The important man, Saasa, spoke to the school boys.
- b. *dína kyíwa'dí'* H verb phrase
 PhS
 to.say he.did.CS
- kaimíraayará* noun
 PhS
 the.male.children
- kádika yína* L adjunct, verb
 PhS
 ear to.do
 He spoke but the boys wouldn't listen.

Clause stress occurs on the central phrase stress of a clause. It is louder and higher in pitch than other phrase stresses. It is the first stress in the word marked CIS in each example.

- (70)a. *A'mwé náanga saasái / díwa' / kaimíraaya sikulibóyaraavi* H.
 PhS CIS PhS
 man big the.Saasa he.said child to.the school.boys
 The important man, Saasa, spoke to the schoolboys.
- b. *A'mwé náangai / yagínna / wídina wídina kyíwa' M...*
 PhS CIS PhS
 man the.big strongly to.repeat.to.them he.did.CS
 The important man kept saying it firmly...

Sentences usually have only one or two clauses and often one clause is embedded in another. In a two clause sentence, sentence stress occurs on the main stress of the second clause. It is louder and higher than the other clause stress. The sentence stress is the first stress in the word marked SenS in each example. In the three-clause example below the sentence stress occurs on the only clause with a final verb.

- (71)a. *A'mwé Gulisámwará HL / yivánigatámwa' //*
 CIS PhS
 man the.Gulisa.down what.they.are.doing.down
walyánganamáryaa L.
 SenS
 let.us.go.down.and.see
 Let us go down and see what the Gulisa people are doing. (The first clause is embedded in the second.)
- b. *Dína kyíwa'dí' H // kaimíraayará / kádika yína* L.
 CIS SenS PhS
 to.say he.did.CS the.male.children ear to.do
 He spoke but the boys didn't listen.

- c. *A'mwé náangai / yagínna / wídina wídina kyíwa' M //*
 PhS CIS PhS
 man the.big firmly to.repeat.to.them he.did.CS
- bína yóna / dáva: M // nímí / Tíkíki / wídíwa M.*
 CIS PhS SenS PhS
 to.come we.did here I to.Dick I.said.to.him
 The important man kept saying it firmly and we came here and I spoke to Dick.

2.2.1 EXAMPLES OF DISCOURSES

The following texts were recorded, transcribed (except tone and intonation) and grammatically analysed by R. Lloyd. Note that there is a paragraph stress on a sentence stress in the centre, or first sentence past the centre, of a paragraph.

- (72) **Yasoya** 'red pandanus fruit' (Spoken by Saasa Nokaai, 15th January, 1969)

Paragraph 1, Sentence 1 (Introduction)

<i>Nemí / wóna sagáa' L to H</i>	introduction
PhS	
we yesterday that.time	
<i>a'mwé náanga Saasái</i>	noun phrase
PhS	
man big the.Saasa	
<i>díwa'</i>	verb
SenS	
he.said	
<i>kaimíraaya sikulibóyaraavi H.</i>	noun phrase
PhS	
child to.the.school.boys	

Embedded Quote Paragraph, Sentence 1

<i>"Kaimiráayaagaihí L to H</i>	vocative introduction
PhS	
you.boys	
<i>maabóliyaaga'</i>	noun
ParS	
those.marbles	
<i>dimákwasakí HL ng</i>	verb
PhS	
you.all.drop.put PS	

Embedded Quote Paragraph, Sentence 2

<i>A'mwé Gulisámwará: HL (Lar)</i>	noun phrase
CIS	
men the.Gulisa.down	

<i>yivánigatámwa' //</i>	embedded verb
PhS	
what.they.are.doing.down	
<i>walyánganamáryaa L."</i>	verb
SenS	
let.us.go.down.and.see	

Paragraph 1, Sentence 2

<i>Dína kyíwa'dí' H //</i>	verb phrase
CIS	
to.say he.said.CS	
<i>kaimíraayará</i>	noun
ParS	
the.boys	
<i>kádika yína L.</i>	adjunct, verb
PhS	
ear to.do	

Paragraph 2, Sentence 1

<i>A'mwé náangai</i>	noun phrase
PhS	
man the.big	
<i>yagínna / wídina wídina kyíwa' M //</i>	adverb, verb phrase
CIS PhS	
strongly to.repeat.to.them he.did.CS	
<i>bína yóna / dáva: M //</i>	verb phrase, locative
CIS	
to.come we.did.and here	
<i>ními / Tikíki / wídíwa M.</i>	pronoun, noun, verb
SenS	
I to.Dick I.said.to.him	

Paragraph 2, Sentence 2 (Parenthesis)

<i>(A'mwé náanga Saasári / wí'néna M</i>	noun phrase, verb
CIS PhS	
man big to.Saasa I.heard.and	
<i>"Ai H /</i>	exclamation
PhS	
EXCL	
<i>kumiré Gulisáraavireburí /</i>	possessed phrase
PhS	
their Gulisa.people's.way	

<i>némi</i> <i>Báaruyainá</i> PhS we Baruya	noun phrase
<i>mwánganyainá</i> / <i>daaka</i> ", // SenS we.not.seeing.ones is.it	verbal noun, verb
<i>yawiréna</i> M) I.thought.SS.SEQ	quoting verb
<i>Tíkiki</i> <i>widiwa</i> M. CIS to.Dick I.said.to.him	noun, verb

Paragraph 2, Sentence 3 (Reported speech)

<i>"Tíkí' / a'mwé náangara</i> / ParS PhS Dick men the.big	vocative, noun phrase
<i>(sára) yagaala / sára divániga'</i> M. SenS ERROR speech that.way they.are.saying	adjunct, adverb, verb

Paragraph 2, Sentence 4 (Included reported speech)

<i>'Gulisáraavirebwi:</i> M (Lar) / PhS Gulisa.people's.way	possessive noun
<i>yásoya / livamijí'nipi'dera,'</i> SenS-H red.pandanus they.who.will.take.and.rub.on	noun, verb
<i>divániga'</i> M. they.are.saying	quoting verb

Paragraph 2, Sentence 5 (Reported speech)

<i>Némi / mwalyawáannajiwo</i> M?" we should.we.not.go.down	noun, verb
--	------------

Paragraph 2, Possible Sentence 6

<i>Kudiwá / Tíkiki</i> M PhS SenS I.said.to.him.CS to.Dick	verb, noun
<i>Tíkí' / diwá'.</i> Dick he.said	noun, verb

Paragraph 2, Sentence 7 (Reported speech)

"Ya HL, *némi* / *wályawáade* H to L." pronoun, verb
 SenS PhS
 yes we we.will.go.down

Paragraph 2, Sentence 8

Daka: ng M // *sagaa'* / verb, temporal
 he.said.and PS then
nemi yuyaina / *walyuna* L. noun phrase, verb
 we all.of.us.men to.go.down

(Note: Tone is often very subdued in the last sentence of a discourse.)

About us yesterday, the important man Chacha spoke to the schoolboys. "You boys, put down those marbles! Let us go down and see what the Gulicha people are doing down there." But the boys didn't listen.

The important men kept speaking strongly to them and we (including the boys) came here and I spoke to Dick. I heard the important Chacha man and I thought "Hey, we Baruya people are ones not seeing the Gulicha people's custom", and I spoke to Dick. "Dick, the important men are saying thus. They are saying 'As for the Gulicha people's custom, they will take red pandanus fruit and rub it on themselves'. Should we not go down?" I said that to Dick and Dick said "Yes, we will go down". He said that and then we all (including Dick) went down.

(73) *Buta* 'tadpoles' (spoken by Adavaakya Bwarima', 1962)

(*Kwarame* / *yadáawori* // *daziya'* ng: HL /
 going.around while.it.does it.which.will.talk.now PS

gyiváni'. *Kaváayo* L.)
 be.doing.for.you wait

Gilyá ngi H / *maryáa'na* // *kwarákei* / *maryáa'na* L //
 bag PS to.unravel border.he to.unravel

yína yádivi' L. ([*Jénaya* M] / *bú'jenya* M / *dívina yádivi'* L.)
 to.do they.do holding.open tadpoles.holding.open to.curve they.do

Bíthaanya / *dápaina:* M / *gíhipaina* M *yádivi'* ngi: M // *gilyávi* /
 tree to.cut to.curve.around they.do PS bag.OBJ

yamíngaina: ML. *Aalyavi* M / *bútango* M / *míhyawo* M / *a'mwéngo* L.
 to.tie.onto water.OBJ tadpoles putting.in the.women

(*Nyaabulyannáno* L. (*nyáa nyáa*) *Nyáabulyannáno* L. *Búsa'náno* L.)
 for.frogs ERROR for.frogs for.tadpoles

(*Wí'nanyi* L.)
 be.finished

aL *Yádivi'* M // ya L *a'mweráji* L / *járita* / *da'dáa'nyagáa'* H //
 HES they.do yes with.the.men fine.weather while.it.shines.time

í: L (ye' L) *ye'mwanga yádivisaréro* L. *A'mwéraawo* L.
 PS ERROR joining.them it.is.they.who.do the.men

Aalyaví ML / *yitháa* ng M / (*arakesi* L) *arakesí* / *bí'diví'* ng H //
water.OBJ EXCL PS with.mud with.mud they.dam PS

sáa'nya da'dáa'nyi L // *máa'divisarero* L. *A'mwéngo* L / *maarya'névyo* L.
empty while.it.is it.is.they.who.take the.women for.taking.them

A'mwé *kwara kwára* / *kaimiráaya kwara kwára* / *a'mwé kini kini* /
person many.M child many.M person many.F

maarya'nevyo L. (*Wí'nanyiro* L.) *Wíkíro* L.
for.taking.them be.finished be.good

While it (the tape-recorder) will circle, it which will speak is doing for you (will record your speech). Wait!

Undoing netbags, undoing the border, they do. Something to hold open, they curve the tadpole sticks for holding (the bags) open. They cut bidanya sticks, curve them around (surround the net edge) and tie the bag onto (the sticks). In the water the women put tadpoles into their net bags (tadpole nets). (It is) for frogs. (It is) for the tadpole. That's all.

They do that, yes, with the men, the time while the weather is fine they are the ones who help (the women). That's the men. In the river, behold, they dam the water back with mud and while it (river) stands empty they are (the men) who get (the tadpoles). (It is) for the women to get them. (It is) for many men, many boys and many women to get them.

That's all. It's finished.

2.3 INTONATION

2.3.1 DISCOURSE FEATURES

Discourse or paragraph introductions may manifest crescendo and a continuous upward glide from low to high.

- | | | |
|--------|---|--|
| (74)a. | <i>Némi</i> / <i>wóna sagáa'</i> ...L to H
we yesterday | introduction |
| b. | <i>Kaimiráayaagaihí</i> ...L to H
you boys | vocative |
| c. | <i>Wályuna yína yóna</i> : ...L to HL
to.go.down to.do we.did.and
We went down and... | repeat of final
idea at start of
following paragraph |

Pause occurring following non-final sentences, and after phrases or clauses, may be manifested by a lengthened vowel or by *ng*, *ngí*, *i* or laryngealisation. After a high tone or intonation the pitch falls. Mid and low pitches continue mid or low respectively. This non-silent pause indicates that the speaker plans to resume speaking.

- (75)a. *Bína yóna* / *dava*: ...M
to.come we did here
We came here...

- b. *Maabóliyaaga' / dimákwasakí* HL ng.
those.marbles put.away PS
Put away those marbles.
- c. *Gulisáraavirebwi:* M(Lar)...
Gulisa.people's.way
The Gulisa people's way...
- d. *A'mwé Gulisámwará* HL(Lar)...
man the.Gulisa.down
The down there Gulisa people...
- e. *í:L (ye'L) yé'mwanga yádivisaréro L. A'mwéraawo L.*
ERROR joining.them it.is.they.who.do the.men
the men are the ones who help them.

A low *yí:* emphasises the following section.

- (76)a. *yí:L Máriwaa' ké'mwéwidáa'nyí:*
note Marawaka from.up.there
From Marawaka up there...
- b. *Yaanyí mwáalakei / a'mwéi / yí / Biráamayaibí'*
Yanyi he.who.lived a.man note like.Biramayai
he who lived at Yanyi, a man, note, like Biramayai

The following are some examples of corrected mistakes in discourse.

- (77)a. *A'mwé náangai Saasái / (dí) díwa'...*
man the.big the.Saasa ERROR he.said
The important man, Saasa, said...
- b. *Dína kyíwa'dí' H* (repeated the same way as if thinking)
to.say he.said.CS
He said...
- c. *A'mwé náangara (sára) yágaala / sára divániga'M.*
men the.big thus speech thus he.is.saying
The important men are saying that.
(added more information)
- d. *Nemi / (wa) mwalyawáannajiwo M?*
we ERROR should.we.not.go.down
Should we not go down?
(changed to negative, flow not interrupted)
- e. *Se / wáí'. í' H Mwáali'L.*
sleep he.is.asleep no he.is.sitting
He is asleep. No. He is sitting down.
- f. *Se / wáí'. í' H Wawinya / yiváni'L.*
sleep he.is.asleep. no work he.is.doing
He is asleep. No. He is working.

An explanation in parenthesis follows the same pitch patterns as the rest of the discourse but is more subdued.

- (78)a. *Ními / Tikíki / wídíwa* M. ("Ái, *kumiré* *Gulisáraavireburí* /
I to.Dick I.said.to.him EXCL their Gulisa.people's.way
nemi Báaruyaina / mwánganyainá daaka" //
we we.Baruya we.not.seeing.ones is.it
yawiréna M // *Tikíki wídíwa* H.)
I.thought.SS.SEQ to.Dick I.said.to.him
I said to Dick ("Eh, we don't see the Gulisa's ways", I thought and said to
Dick).

2.3.2 UTTERANCE OR PARAGRAPH FINAL INTONATION

The final syllable of a statement is low unless it requires a response. The final syllable of a question is high unless it does not require a response. These basic intonations are not altered by the presence of a negative or in reported speech. Anger produces loudness and wider registers. Sarcasm or deliberate anger is shown by slow deliberate speech. There is an up and down sing-song effect in complaint, more noticeable in angry complaint. Complaint can be accompanied by a whining voice.

Statement:

- (79)a. *yayo* L
yes
- b. *aalo* L
no thankyou
- c. *Nemi / walyawáade*. L
we we.will.go.down
We will go down.
- d. *Kígaasí / daháasi / divijí mwaaalídeinyi* L.
then.and now.and later.and it.is.I.who.will.stay
In the past, present and future I will stay here.
Kígaasí: HL / *daháasi* / *divijí* / *mwaaalídeinyi* L.
then.and now.and later.and it.is.I.who.will.stay
In the past, present and future I will stay here. (with pause to think)
- e. *Daháa' Saadeháaki. Mwanyagáa' Mudiwawínyagaa' / yidéra* L.
now is.Sunday morning new.work.time I.will.do.it
Today is Sunday. I will work tomorrow morning, on Monday.
- f. *Yo, tewaanya / jithé'na // gizáavanige* L.
yes well you.will.do.for I.am.giving.to.you
Yes, I am giving it to you because you will do it well.

Negative statement:

- (80) *A'mwé pwai / míka* L.
man the.one it.is.not
The man isn't there.

Reported speech:

- (81) "Nemi / walyawáade", // díwa' L.
 we we.will.go.down he.said
 He said "We will go down".

Anger:

- (82)a. Arikawinyíra L.
 definitely not
- b. Yaawáryaibisaigínyi L. Gwangámanige L.
 it.is.you.who.are.like.a.pig I.am.looking.at.you
 You are like a pig. I am looking at you.

Sarcasm:

- (83) "A'mwé tewaanyáinyi", // kwaasi / díwaa L.
 person I.M.am.good falsely you.said
 You said falsely "I am a good man".

Rhetorical question:

- (84)a. Yaawaryáinyi / daaka L.
 I.M.a.pig is.it
 I'm not a pig.
- b. Be gilyá' / dingaka L.
 what bag it.might.be
 I don't know what kind of bag it is.
- c. Aari / wídvánigina L.
 to.whom you.are.saying.to.him
 To whom are you speaking. (Don't talk to me like that.)
- d. "Tewaanya'nyíra", // dathívanigi H / gími sa'gi L.
 I.F.am.good are.you.saying you yourself
 Are you yourself saying "I am a good woman".

Question:

- (85)a. A'mwé' / daaka H?
 a.woman is.it
 Is it a woman?
- b. Be gilyávako H?
 what bag.is.it
 What bag is it?
- c. A'mwé' / dingaka H?
 a.woman might.it.be
 Might it be a woman?
- d. Wapegílya' / dingaka H?
 sweet.potato.bag might.it.be
 Might it be a bag of sweet potato?

- e. *Tewaanya / yííwa* H?
 well will.I.do
 Shall I do it well?

Negative Question:

- (86) *A'mwé pwai / mídaaka* H?
 man the.one is.it.not
 Is the man not there?

Reported Question:

- (87) "*Gará / díwaana* H?" // *díwa*'.
 how you.said he.said
 He said "What did you say?"

Angry Question:

- (88) *Yaawaryáinyi / daaka* H?
 I.M.a.pig is.it
 Am I a pig?

Sarcastic Question:

- (89)a. *Aari wídívanígina* H?
 to.whom you.are.saying.to.him
 To whom are you speaking?
- b. "*Tewaanya'nyíra*", *dathívanígí* H / *gími sa'gí* H?
 I.F.am.good are.you.saying you yourself
 Are you yourself saying "I am a good woman?"

Commands usually end low but change to high and speed up for emphasis. Exclamations usually end high but change to low and slow down for emphasis. Some exclamations have a high-low glide on the last syllable.

- (90)a. *í*: LH!
 Of course!
- b. *Níniré wawinya / yarai yárai / jo* L.
 my work hurry hurry do
 Do my work quickly.
- c. *Aala* H!
 No thanks!
- d. *Yarai* H!
 Hurry!
- e. *Dulaama* H!
 Come in!
- f. "*Dulaama* H!" // *kagíthíwí*' H!
 come.in I.would.have.said.to.you
 I would have said to you "Come in!"

- g. *Yo H. Tewaanya / yíwana H!*
 yes well I.did
 Yes. I did well!
- h. *Aari wíðvanígina H!*
 to.whom you.are.saying.to.him
 To whom are you speaking!
- i. *Wapáayají / aakumáakají / taawaibíkají / dí múbyo L.*
 sweet.potato.and corn.and beans.and you.buy
 Buy the sweet potato, corn and beans.
- j. *Wapáayají / aakumáakají / taawaibíkají / dí múbyo H!*
 sweet.potato.and corn.and beans.and you.buy
 You buy the sweet potato, corn and beans!
- k. *Wapáayají: HL / aakumáakají: HL / taawaibíkají: HL / dí múbyo L.*
 sweet.potato.and corn.and beans.and you.buy
 Buy the sweet potato, corn and beans. (with pauses to think)
- l. *Minnera H!*
 Don't do that!
Minnera L!
 Don't do that!
- m. *Níwaava H!*
 Oh my mother!
Níwaave: HL!
 Oh my mother!
- n. *Daarévanna H!*
 (amazement – used by men)
Daarévanna L.
 (amazement – used by men)

For calling intonation the tone is level and high without individual word tones. The syllables are all stressed and the words are not abbreviated. The last vowel is changed to *o* by men and *u* by women and is very high and resonant. This vowel carries over a much longer distance than the rest of the call.

- (91)a. *Baarua'mweihi / tuta / líkílikya yaadero: VH.*
 you.Baruya.men track dig.and.dig let.us.do
 Baruya men, let us dig the track.
- b. *A'mwe naanga Saasa Kwazaayalu: VH.*
 man big Saasa Kwazaaya
 Important man Saasa Kwazaaya.

In the whining intonation, used mainly by children, the final syllable glides from low to high, the registers are wider and there is a whine in the voice.

- (92)a. *Nyíjaama: LH.*
 Give it to me.

Naangá' / nyíjaama: LH.

Big sister, give it to me.

b. *Nimijí / wáwaka: LH.*

with.me we.two.will.go

Let me go with you.

2.3.3 NON-FINAL INTONATION

Non-final clauses, sentences and utterances end with high or mid intonation. This indicates that the utterance continues or requires a response.

(93)a. *Wayaakeré wawinya' / mí nyíwídika M. Wapaayá /*
white.man's work not.to.do lest.I.do sweet.potato

yarai yárai / wídana M. Káanyidéra L.

hurry hurry let.it.cook I.will.go

Lest I don't do the white man's work, let the sweet potato cook quickly.

I will go.

b. *Nanyíramádika H. Nimi / wídéra L.*

lest.he.hit.me I I.will.go

I'll go lest he hit me.

c. *Dika / náginádika H. Ata / minnera L.*

fire lest.it.burn.you hand you.must.not.do

Don't touch it lest it burns you.

d. *Támuji kwáji M. // yídika / kyíwídi' M. Wina yíwa' L.*

if.I.had.killed.it cook I.would.have.done to.go it.did

If I had killed it I would have cooked it. It went.

e. *"Dulaama H!" // kagithíwi'.*

come.in! I.would.have.said.to.you

Wapaayá pwai / mwakíweinyi M // gwangánaasiwa L.

sweet.potato one.M it.is.I.who.didn't.put I.saw.you.go.past

I would have said "Come in!" However I hadn't put a sweet potato (on the fire) when I saw you go past.

There are wider registers when some anger is involved.

f. *"Tewaanya / yíma H", // máji H baa'ná yíwaana H?*

well let.me.do not.say why you.did

Why did you not say "I will do it well"?

Yarai / jóya' H // baa'ná L / nyídiwaa H?

hurry you.do.NOM why you.said.to.me

Why did you tell me to hurry and do it?

When expressing alternate propositions, each alternative is a separate sentence, usually agreeing in intonation (example (94f) is unusual in this respect).

- (94)a. *Kaa'gflya' / daa' H? Wapegflya' / daa' H?*
 taro.bag is.it sweet.potato.bag is.it
 Is it a bag of taro or a bag of sweet potato?
- b. *Se / dahawári' L. Wawinya / dahayivani' L.*
 sleep maybe.he.is.asleep work maybe.he.is.doing
 He is asleep or he is working.
- c. *Kaimalei / dínaka H? Taayá' / dínaka H?*
 boy might.it.be girl might.it.be
 Could it be a boy or a girl?
- d. *Kaimalei / dínaka L. Taayá' / dínaka L.*
 boy it.might.be girl it.might.be
 It could be a boy or a girl.
- e. *Yuduyaráavireba / wa'mwaríde' / dínaka M?*
 Yuduya's.place I.will.sleep might.it.be
Yi'dáryavi / wa'mwaríde' / dínaka M?
 forest I.will.sleep might.it.be
Kaamaalyavi / wa'mwaríde' / dínaka M?
 Kaamaalya.river I.will.sleep might.it.be
 Will I perhaps sleep at the Yuduya's place, or perhaps in the forest, or perhaps at
 the Kaamaalya river? (depending how far I get)
- f. *Kaimalei / dínaka H. Taayá' / dínaka L.*
 boy might.it.be girl it.might.be
 Could it be a boy or it could be a girl.

When two propositions are opposed, each is a separate sentence or fragmentary sentence agreeing in intonation.

- (95)a. *Siwaaká' / i' H i L. Labe' L.*
 possum no glider
 Not a suwaka possum. A glider possum.
- b. *Kaa'gflya' / daa' L. Wapegflyikiro L.*
 taro.bag is.it it.is.a.sweet.potato.bag
 It is not a bag of taro. It is a bag of sweet potato.

When two or more items are compared, all but the last have non-final intonation.

- (96)a. *Gimíré / taanga maal'na M. Nimíré / taanga náanga L.*
 your heavy small my heavy big
 Yours (are) lighter than mine.
- b. *Aagai / yáawaryá náangai M. Aagai / maalíkai M.*
 that.M pig the.big that-M small-he
aagai / yúna maalíkai L.
 that.M completely the.small
 That pig (is) bigger than that one, which is bigger than that one.

2.4 CONCLUSION

Word, phrase, clause, sentence and paragraph stresses, incorporating high tone, combine to make an up and down flow of speech which nevertheless drifts downward throughout the discourse. The basic intonations, high or mid (not incorporating stress), and low, occur on the final syllable of a clause or sentence to show whether the information is final, unfinished or requiring a response. Voice qualities, speed and distance between registers are used, in anger, sarcasm, complaint, whining, exclamation and command intonations.

APPENDIX 1: ADDITIONAL NOUN EXAMPLES

Tone contrasts on two-syllable noun and adjective stems (the only minimal or near minimal stem tone contrasts observed in the language):

<i>kwata</i>	frog	(example (2))
<i>kwatá</i>	basher	
<i>kwaaka</i>	ground	
<i>kwaaká</i>	ladder	
<i>minya</i>	stick	
<i>minyé</i>	floor	
<i>wila</i>	rope	
<i>wilá</i>	later	
<i>lika</i>	intestines	
<i>liká</i>	small girl	
<i>tuta</i>	track	
<i>tutá</i>	short	

Tone patterns on stems of one to four syllables:

<i>bwia</i>	rotten thing	(example (1))
<i>se</i>	sleep	
<i>ne</i>	old person	
<i>linna</i>	hole	(example (2))
<i>saanya</i>	tusk	
<i>yotá</i>	wallaby	
<i>kalé</i>	liver	
<i>kíta</i>	kind of frog	
<i>jilika</i>	dog	(example (3))
<i>gaawatá</i>	shell band	
<i>kwaawíla</i>	cough	

More noun compounds:

bwakiri'náarya (example (5))

bwakiriká-naarya < *bwakiri'(ká)-naarya*

warmth-banana

banana sp.

baláanga (example (8))

bal(a)-aanga

female-relation

wife

bairígusa (example (8))

bal(a)-tigus(i)-ya

female-tie-NOM

granny knot

bwaibwaipú'ja (example (8))

bwaibwal(á)-pu'ja

plant sp.-?

plant sp.

asíla (example (10))

ata-síla < *a'(ta)-síla*

hand-stone

bashing stone

kadítúta (example (10))

kadika-tuta < *kadi'(ka)-tuta*

ear-track

earhole

Tone on Noun Clitics:

kwaakawo (example (13))

kwaaka-wo

ground-F.SG.SUBJ

ground

kwaakewo

kwaaka-ya-wo

ground-PHR-F.SG.SUBJ

ground

kwaakawáalo

two pieces of ground

kwaakewáalo

kwaaka-ya-waalo

ground-PHR-F.DU.SUBJ

two pieces of ground

Kwaakasíro.

It is dirt.

Kwaakesíro.

kwaaka-ya-w(o)-yiro

ground-PHR-F.SG.SUBJ-be

It is dirt.

kwaakáwo

(example (14))

kwaaká-wo

ladder-F.SG.SUBJ

ladder

kwaakéwo

kwaaká-ya-wo

ladder-PHR-F.SG.SUBJ

ladder

kwaakáwaalo

two ladders

kwaakéwaalo

kwaaká-ya-waalo

ladder-PHR-F.DU.SUBJ

two ladders

Kwaakásiro.

kwaaká-w(o)-yiro

ladder-F.SG.SUBJ-be

It is a ladder.

Kwaakesíro.

kwaaká-ya-w(o)-yiro

ladder-PHR-F.SG.SUBJ-be

It is a ladder.

tutawo

(example (13))

tuta-wo

track-F.SG.SUBJ

track

tusawo

tut(a)-ya-wo

track-PHR-F.SG.SUBJ

track

tutawáalo

tuta-waalo

track-F.DU.SUBJ

two tracks

tusawáalo

tut(a)-ya-waalo

track-PHR-F.DU.SUBJ

two tracks

Tutasíro.
tuta-w(o)-yiro
 track-F.SG.SUBJ-be
 It is a track.

Tusasíro.
tut(a)-ya-w(o)-yiro
 track-PHR-F.SG.SUBJ-be
 It is a track.

tutáwo (example (14))

tutá-wo
 short-F.SG.SUBJ
 short

tusáwo
tut(á)-ya-wo
 short-PHR-F.SG.SUBJ
 short

tutáwaalo
tutá-waalo
 short-F.DU.SUBJ
 two short things

tusáwaalo
tut(á)-ya-waalo
 short-PHR-F.SG.SUBJ
 two short things

Tutásiro.
tutá-w(o)-yiro
 short-F.SG.SUBJ-be
 It is short.

Tusasíro.
tut(á)-ya-w(o)-yiro
 short-PHR-F.SG.SUBJ-be
 It is short.

a'mwélo (example (14))

a'mwé-lo
 person-M.SG.SUBJ
 a man

a'mwéraalo
a'mwé-raalo
 person-M.DU.SUBJ
 two men

A'mwélyiro.
a'mwé-l(o)-yiro
 person-M.SG.SUBJ-be
 It is a man.

a'mwéwo
a'mwé-wo
 person-F.SG.SUBJ
 a woman

a'mwéwaalo
a'mwé-waalo
 person-F.DU.SUBJ
 two women

A'mwési-ro.
a'mwé-w(o)-yiro
 person-F.SG.SUBJ-be
 It is a woman.

Ne'nyí nyijáama. (example (17))
ne-w(o)-nyí(no) nyijáama
 old.person-F-me give.it.to.me
 Give to me, an old woman.

Ne'nyí bíwa.
ne-w(o)-ny(o) bíwa
 old.person-F-I I.came
 I, an old woman, came.

Kwaakéba dakyo. (example (18))
kwaaka-ya-ba(no) dakyo
 ground-PHR-place put.it.down
 Put it on the ground.

Kwaakébanyí-ro.
kwaaka-ya-ban(o)-yiro
 ground-PHR-place-be
 It is a ground place.

Kwaakébanná dakyo.
kwaaka-ya-ban(o)-na(no) dakyo.
 ground-PHR-place-to put.it.down
 Put it on the ground.

Some noun clitics occurring on adverbs giving extended meanings:

Sareví yílaayá yíwano.
sare-ví(no) yílaayá yíwano
 that.way.EMB-her happy I.did
 In that I am happy.

Sarébaaibɛ' *jó.*
sare-baal(o)-bi'(ko) *jó*
 that.way.EMB-same-like do.it
 Do it just the same as that.

Sarevína *wíde.*
sare-vi(no)-na(no) *wíde*
 that.way.EMB-her-REF I.will.go
 About that happening I will go.

Sarevídaa'nyi *támwano.*
sare-vi(no)-daa'nyi(no) *tamwano*
 that.way.EMB-her-from I.hit
 From that happening I hit it.

Sareyába *támwano.*
sare-(vino)-ya-ba(no) *tamwano*
 that.way.EMB-her-NOM/EMB-place I.hit
 At that happening I hit it.

Nouns with Identificational Verbs:

A'mwélyiro.
a'mwé-l(o)-yiro
 person.M.SG.SUBJ-be
 It is a man.

A'mwéi miko.
 man not.be
 It is not a man.

A'mwéi dáako?
 man be.INTER
 Is it a man?

A'mwéi mídaako?
 man not.be.INTER
 Is it not a man?

A'mwéi díngako.
 man may.be
 It may be a man.

A'mwéi midíngako.
 man may.not.be
 It may not be a man.

A'mwé bewaláko?
 person what.is.it.M
 What man is it?

Bewaláko?
 what.is.it.M
 What masculine thing is it?

Beriváko?

what.is.it.F

What feminine thing is it?

A'mwélyiráji

wíwano.

a'mwé-l(o)-yiro-ji

wíwano

man-M.SG.SUBJ-be-DEP I.have.spoken.to.him

Thinking "He is a man", I spoke to him.

Bewalákaji

wíwano.

be-wa-l(o)-ako-ji

wíwano

what-M-M.SG.SUBJ-QUES-DEP I.have.gone

Thinking "What is that masculine thing", I went.

Noun Phrases:

linna kɪbawéwo

(example (29))

linna kɪbawé-wo

hole medium-F.SG.SUBJ

medium hole

Linna kɪbawésiro.

linna kɪbawé-w(o)-yiro

hole medium-F.SG.SUBJ-be

It is a medium hole.

APPENDIX 2: ADDITIONAL VERB EXAMPLES

Tone patterns on one- to four-syllable verb stems:

ni-

(example (30))

eat

pi-

shoot

bali-

(example (31))

die

biri-

search

wakí-

war(i)-hi

lie-cause

put

daaihi

daal(i)-hi

pull-cause

take off bowstring

Last root perturbed to high:

- biza'jiváli-* (example (35))
biza'ji- vali
 ?-firmly
 mash food
- walaabí-*
wal(i)-aa-bí
 down-move-come
 come down
- darepáli-*
dar(i)-e-pali
 press-responsible-firmly
 press down
- ga'mijamaryaawí-*
ga'-mij(i)-a-mary(i)-aa-wí
 cross-follow-and-around-move-go
 chase all around
- lí'milaní-*
lí'mil(i)-a-ní
 reap-and-eat
 reap and eat
- girakurakí-*
girav(i)-h(i)-wir(i)-wakí
 put.tog-cause-?-put
 put two sticks parallel
- maangyihí-*
maang(a)-yi-hí
 mouth-do-cause
 put food in child's mouth

Root added before compound stem and compound stem perturbed to high:

- yavírediví-* (example (36))
y(i)-a-piraayi-diví
 do-and-heat-bend
 heat and straighten

Verb connections:

- lihiváli-* (example (37))
lihi- vali
 tear-firmly
 tear

ginyiwági-
ginyi-wagi
 turn-by.hand
 turn vegetable over

dapáli-
dav(i)-vali
 cut-firmly
 chop

livagíli-
liv(i)-a-gíli
 take.up-and-one.by.one
 line up

marémwaali- (example (38))
ma(a)r(i)-e-mwaali
 take-responsible-sit
 oversee

miwirémwaali-
miwir(i)-e-mwaali
 stick-responsible-sit
 put glue on and wait for birds

dí'mwaláabi-
dív(i)-m-wal(i)-aa-bí
 curve-TRANS-down-move-come
 curve sticks in lines down the roof

wika yímabí
wika yi-ma-bi
 whistle do-while-come
 whistle while coming

Future Gerunds and Infinitives:

Paihiryá yidéro. (example (42))
paihír(i)-ya yidéro
 tread-EMB I.will.do
 I will tread.

Paihi'ná yidéro.
paihír(i)-na yidéro
 tread-REF I.will.do
 I will tread.

Verbs occurring only in irregular command forms:

<i>Gaano.</i>	Give it to me.	<i>Gaanyílo.</i>
		<i>gaan(o)-yílo</i>
		give-PL.COM
		Give it to me.

<i>Gano.</i>	Move.	<i>Ganyílo.</i> <i>gan(o)-yílo</i> move-PL.COM Move.
<i>Mano.</i>	Take it.	<i>Manyílo.</i> <i>man(o)-yílo</i> take.it-PL.COM Take it.

The root *kaan-* 'move' in *kaanya* 'moving' and *kaanna* 'to move' combines with many forms of the verb 'do' in the same word. This produces the following irregular command verbs:

Kaajo.
kaan-d(i)-y(i)-o
go-COM-do-SG.COM
Go.

Kaajílo.
kaan-d(i)-(yi)-yílo
go-COM-do-PL.COM
Go.

Kaanyaanyílo.
kaan-y(i)-aan(o)-yílo
going-do-let.us-PL.COM
Let us go, all of you.

RULE 1

Future With Dependent Marker:

The tone is the same as without the dependent marker. The syllable before the dependent suffix *-jĩ* is perturbed to high after a low syllable.

Paihírĩjĩ *wangámanige.*
paihírĩ-m(o)-jĩ(no) *wangámanige*
tread-I.will-DEP I.am.seeing
Thinking "I will tread on it", I'm watching it.

Paihírĩderájĩ *wíde.*
paihírĩ-m(o)-dero-jĩ(no) *wíde*
tread-I.will-FUT-DEP I.will.go
Thinking "I will tread on it", I will go.

Paihírĩjĩwanájĩ *wíde.*
paihírĩ-m(o)-d(a)-yi-w-ano-jĩ(no) *wíde*
tread-I.will-INTER-do-PRES.COMP-I-DEP I.will.go
Thinking "Shall I tread on it?" I will go.

Future Interrogative:

Mubíde' dáako.
I.will.trade.she is.it?
Will I trade?

Paihíride' dáako.
I.will.tread.she is.it?
Will I tread on it?

Future Dubitative:

Mubíde' dǎngako.
I.will.trade it.may.be
Perhaps I will trade.

Paihíride' dǎngako.
I.will.tread it.may.be
Perhaps I will tread on it.

Negative Future Simultaneous:

Majādaa'muji náanga nyidáthe.
ma-d(i)-y(i)-ad-aaw-m-wi-ji naanga nyidáthe
NEG-say-do-DUR-DYN-TRANS-I-DEP big he.will.say.to.me
While I am not speaking he will say a lot to me.

Mamubyádaa'muji mwaalíde.
ma-mub(i)-y(i)-ad-aaw-m-wi-ji mwaalíde
NEG-trade-do-DUR-DYN-TRANS-I-DEP I.will.sit
While I am not trading I will sit down.

Mabwakakyádaa'muji mwaalíde.
ma-bwakak(i)-y(i)-ad-aaw-m-wi-ji mwaalíde
NEG-cover-do-DUR-DYN-TRANS-I-DEP I.will.sit
While I am not covering it I will sit down.

Mavaihiryadaa'muji dáthe.
ma-paihir(i)-y(i)-ad-aaw-m-wi-ji dáthe
NEG-tread-do-DUR-DYN-TRANS-I-DEP he.will.speak
While I am not treading on it he will talk.

Mabaazi'má'nyadaa'muji nyidáthe.
ma-baazi'má'n(i)-y(i)-ad-aaw-m-wi-ji nyidáthe
NEG-put.on-do-DUR-DYN-TRANS-I-DEP he.will.speak.to.me
While I am not putting on my shirt he will talk to me.

Negative Subjunctive:

Madiwínero.
ma-di-wi-n(a)-ero
NEG-say-I.SUBJN-REF-be
I should not speak.

Mamubíwinero.

ma-mubí-wi-n(a)-ero

NEG-trade-I.SUBJN-REF-be

I should not trade.

Mabwakakíwinero.

ma-bwakakí-wi-n(a)-ero

NEG-cover-I.SUBJN-REF-be

I should not cover it.

Mavaihi'mwinero.

ma-paihi-wi-n(a)-ero

NEG-tread-I.SUBJN-REF-be

I should not tread on it.

Mabaazi'má'niwinero.

ma-baazi'má'ni-wi-n(a)-ero

NEG-put.on-I.SUBJN-REF-be

I should not put my shirt on.

Negative Undesired Result Subjunctive:

Mají nyíwídiko.

ma-d(i)-yi n(a)-yi-wi-diko

NEG-say-do UNDES-do-I.SUBJN-result

It will be undesirable if I not talk.

Mamubyí nyíwídiko.

not.trade UNDES.if.I.do

It will be undesirable if I not trade.

Mabwakakyí nyíwídiko.

not.cover UNDES.if.I.do

It will be undesirable if I not cover it.

Mavaihiri nyíwídiko.

not.tread UNDES.if.I.do

It will be undesirable if I not tread on it.

Mabaazi'má'nyi nyíwídiko.

not.put.on UNDES.if.I.do

It will be undesirable if I not put on my shirt.

Negative Real Conditional Subjunctive:

This form is always nominalised/embedded and gains a high tone on the last syllable.

Majíwíjǎ'

kave mwaalíde.

ma-d(i)-yi-wi-j(i)-(y)a-w(o)

kave mwaalíde

NEG-say-do-I.SUBJN-DEP-EMB-she quietly I.will.sit

If I do not speak I will sit quietly.

Mamubyíwíjǎ' máanga dáthe.

if.I.not.trade anger he.will.say

If I do not trade he will be angry.

Mabwakakyíwíjǎ' gwálaanna bipí'de.
 if.I.not.cover flies they.will.come
 If I do not cover it the flies will come.

Mavaihíriwíjǎ' kunéwinyíro.
 if.I.not.tread empty-place-be
 If I do not tread on it it won't be there.

Mabaazi'má'nyíwíjǎ' waráde.
 if.I.not.put.on it.will.lie
 If I do not put my shirt on it will lie.

Negative Unreal Conditional Subjunctive:

Majíwíjǎ' kwáji
ma-d(i)-yi-wi-ji k(a)-w(i)-a-ji
 NEG-say-do-I.SUBJN-DEP UNREAL-go-it-DEP

kamaarádikira.
ka-maar(i)-a-ǎk(a)-(y)ira
 UNREAL-take-he.SUBJN-result-be
 If I had not spoken he would have taken it.

Mamubyíwíjǎ' kwáji sanánya'nyi kámwaaímwídi'.
ma-mub(i)-yi-wi-ji kwáji sanánya'nyi kámwaaímwídi'
 NEG-trade-do-I.SUBJN-DEP UNREAL left.out.F.I I.would.have.stayed
 If I had not traded I would have been without.

Mabwakakyíwíjǎ' kwáji kwarádi' mika.
ma-bwakak(i)-yi-wi-ji kwáji kwarádi' mika
 NEG-cover-do-I.SUBJN-DEP UNREAL it.would.have.lain be.not
 If I had not covered it it would not have been OK.

Mavaihíriwíjǎ' kwáji kwarádi'.
ma-paihír(i)-yi-wi-ji kwáji kwarádi'
 NEG-tread-do-I.SUBJN-DEP UNREAL it.would.have.lain
 If I had not trodden on it it would have been OK.

Mabaazi'má'nyíwíjǎ' kwáji sanánya'nyi
ma-baazi'má'n(i)-yi-wi-ji kwáji sanánya'nyi
 NEG-put.on-do-I.SUBJN-DEP UNREAL left.out.F.I

kámwaaímwídi'.
kámwaaímwídi'
 I.would.have.stayed
 If I had not put my shirt on I would have been without.

Negative Non-future Interrogative:

Majíziwano?
ma-d(i)-yi-d(a)-yi-w-ano
 NEG-say-do-INTER-do-PRES.COMP-I
 Did I not say it?

Mamubyíziwano?

ma-mub(i)-yi-d(a)-yi-w-ano

NEG-trade-do-INTER-do-PRES.COMP-I

Did I not trade?

Mavaihríjiwano?

ma-paihr(i)-yi-d(a)-yi-w-ano

NEG-tread-do-INTER-do-PRES.COMP-I

Did I not tread on it?

Mabwakakyíjiwano?

ma-bwakak(i)-yi-d(a)-yi-w-ano

NEG-cover-do-INTER-do-PRES.COMP-I

Did I not cover it?

Mabaazi'má'nyíjiwano?

ma-baazi'má'n(i)-yi-d(a)-yi-w-ano

NEG-put.on-do-INTER-do-PRES.COMP-I

Did I not put my shirt on?

Negative Non-future Dubitative:

Majízihiwano.

ma-d(i)-yi-jih(i)-yi-w-ano

NEG-say-do-DUB-do-PRES.COMP-I

Maybe I did not say it.

Mamubyízihiwano.

ma-mub(i)-yi-jih(i)-yi-w-ano

NEG-trade-do-DUB-do-PRES.COMP-I

Maybe I did not trade.

Mabwakakyíjihiwano.

ma-bwakak(i)-yi-jih(i)-yi-w-ano

NEG-cover-do-DUB-do-PRES.COMP-I

Maybe I did not cover it.

Mavaihríjihiwano.

ma-paihr(i)-yi-jih(i)-yi-w-ano

NEG-tread-do-DUB-do-PRES.COMP-I

Maybe I did not tread on it.

Mabaazi'má'nyíjihiwano.

ma-baazi'má'n(i)-yi-jih(i)-yi-w-ano

NEG-put.on-do-DUB-do-PRES.COMP-I

Maybe I did not put on my shirt.

Negative Non-future Change of Subject Simultaneous:

Majádaazi

ma-d(i)-y(i)-ad-aa(w)-ji

NEG-say-do-DUR-DYN.I-DEP

While I was not speaking he spoke.

(see note on (58a))

díwaka.

díwaka

he.said

Mamubyádaazi nyidíwa'.
ma-mub(i)-y(i)-ad-aa(w)-ji nyidíwa'
 while.I.did.not.trade he.said.to.me
 While I was not trading he talked to me.

Mabwakakyádaazi bwakákiwa'.
 while.I.did.not.cover he.covered.it
 While I did not cover it he did.

Mavaihíryadaazi paihí' mwako.
 while.I.did.not.tread he.trod
 While I did not tread on it he did.

Mabaazi'má'nyadaazi máanga díwako.
 while.I.did.not.put.on anger he.said
 While I did not put on my shirt he was angry.

Negative Infinitive:

Mají yíwana.
ma-d(i)-yi yíwana
 NEG-say-do I.did
 I did not speak.

Mamubyí yíwana.
 to.not.trade I.did
 I did not trade.

Mabwakakyí yíwana.
 to.not.cover I.did
 I did not cover it.

Mavaihíri yíwana.
 to.not.tread I.did
 I did not tread on it.

Mabaazi'má'nyi yíwana.
 to.not.put.on I.did
 I did not put my shirt on.

Negative Gerund:

Majá yíwana.
 not.saying I.did
 I did not speak.

Mamubyá yíwana.
 not.trading I.did
 I did not trade.

Mabwakakyá yíwana.
 not.covering I.did
 I did not cover it.

Mavaihárya yíwana.

not.treading I.did

I did not tread on it.

Mabaazi'má'nya yíwana.

not.putting.on I.did

I did not put my shirt on.

Negatives which must include a Negative Infinitive and Matching Forms with Dependent Marker:

Mavaihári yímo.

to.not.tread I.will.do

I will not tread on it.

Mavaihári yidéro.

to.not.tread I.will.do

I will not tread on it.

Mavaihári yidérají wangámwa.

to.not.tread I.will.do.DEP I.saw

Thinking "I will not tread on it," I watched it.

Mavaihári yijíwano.

to.not.tread shall.I.do

Shall I not tread on it?

Mavaihári yijíwanají mwáalina jó.

to.not.tread shall.I.do.DEP to.sit do

Thinking "Shall I not tread on it?", you sit down.'

Mavaihári yijíhyiwano.

to.not.tread I.may.do

Maybe I will not tread on it.

Mavaihári yijíhyiwanáji mwáalina jó.

to.not.tread I.may.do.DEP to.sit do

Thinking "Maybe I will not tread on it", you sit down.

Mavaihári yíde' dáako?

to.not.sit I.will.do.she is.it

Shall I not tread on it?

Mavaihári yíde' dáakají divánige.

to.not.tread I.will.do.she is.it.I.DEP I.am.saying

Thinking "Shall I not tread on it?", I am saying.

Mavaihári yíde' dínkako.

to.not.tread I.will.do.she it.may.be

Maybe I will not tread on it.

Mavaihári yíde' dínkakáji divánige.

to.not.tread I.will.do.she it.may.be.DEP I.am.saying

Thinking "Maybe I will not tread on it", I am saying.

Mavaihiri kyá'muji dáthe' mika.
to.not.tread after.I.will.do he.will.say.she be.not
After I do not tread on it he will not say anything.

Mavaihiri kyiwá paihí'mwako.
to.not.tread after.I.did he.trod
I did not tread on it and he did.

Mavaihiriwanáji paihí'mwano.
I.did.not.tread.DEP I.trod
Thinking "I did not tread on it", I trod on it.

Mavaihiriwanáji paihí'mwa.
did.I.not.tread.DEP I.trod
Thinking "Did I not tread on it?" I trod on it.

Some Other Future Forms with Dependent Marker:

The penultimate syllable gains a high tone after a low syllable.

Paihíride' dáakaji wangámanige.
I.will.tread.she is.it.DEP I.am.seeing
Thinking "Shall I tread on it?" I am watching it.

Paihíride' dínkakáji divánige.
I.will.tread.she it.may.be.DEP I.am.saying
Thinking "Maybe I will tread on it", I am saying.

Paihírijihiwanáji mwáalina jó.
I.may.tread.DEP to.sit do
Thinking "Maybe I will tread on it," you sit down.

Mavaihirihiwanáji diváni'.
I.may.not.tread.DEP he.is.saying
Thinking "Maybe I will not tread on it", he is saying.

Some Future Nominalised/Embedded Forms:

Paihíride'nyí wasi'nde.
paihíri-m(o)-de-w(o)-ny(o) wasi'nde
tread-I.will-FUT-F-I I.will.throw
I the one who will tread on it will throw it away.

Paihíride'nyíro.
paihíri-m(o)-de-w(o)-ny(o)-yiro
tread-I.will-FUT-F-I-be
It is I who will tread on it.

Paihíride'nyí nyangánade.
paihíri-m(o)-de-w(o)-nyí(no) nyangánade.
tread-I.will-FUT-F-me he.will.see.me
He will see me, the one who will tread on it.

Paihíridengí *wasi'níde*.
paihíri-m(o)-de-ngí(no) *wasi'níde*
 tread-I.will-FUT-them I.will.throw
 I will throw away those which I will tread on.

Paihíridengíro.
paihíri-m(o)-de-ng(o)-(y)iro
 tread-I.will-FUT-they-be
 It is they I will tread on.

Paihíride' *wasi'níde*.
paihíri-m(o)-de-w(o) *wasi'níde*
 tread-I.will-FUT-she I.will.throw
 What I will tread on I will throw away.

Paihírideví *wangánade*.
paihíri-m(o)-de-ví(no) *wangánade*
 tread-I.will-FUT-her I.will.see
 I will see it which I will tread on.

Some Negative Nominalised/Embedded Forms:

<i>Mavaihrimweinyí</i>	<i>mwáaimwa</i> .
<i>ma-paihr(i)-yi-m-w-a-ya-l(o)-ny(o)</i>	<i>mwáaimwa</i>
NEG-tread-do-TRANS-PRES.COMP-I-EMB-M-I	I.sat
I, the one who did not tread on it, sat.	

Mavaihiri *yídeinyí*.
mavaihiri *yi-m(o)-de-l(o)-ny(o)*
 to.not.tread do-I.will-FUT-M-I
 I am the one who will not tread on it.

Future verbs preceded by *berí'* 'what' or *be'ná* 'why' have the same tone as without:

The Immediate Future Interrogative is the only interrogative which can be preceded by 'what' or 'why'.

Mubídero.
 I will trade.

Berí' mubídero?
 What will I trade?

Be'ná mubídero?
 Why will I trade?

Mubíjiwano?
 Will I trade?

Berí' mubíjiwano?
 What will I trade?

Negative Verbs Preceded by 'what' or 'why':

Mamubyíwano.

I did not trade.

Berí' mamubyíwano?

What did I not trade?

Be'ná mamubyíwano?

Why did I not trade?

Identificational Future Verbs:

Paihíridéráji nyíro.

paihíri-m(o)-der(o)-jin(o)-yíro

tread-I.will-FUT-DEP-be

It is thinking "I will tread on it".

Paihíridéráji miko.

paihíri-m(o)-der(o)-ji(no) miko

tread-I.will-FUT-DEP be.not

It is not thinking "I will tread on it".

Paihíridéráji dáako?

I.will.tread.DEP is.it

Is it thinking "I will tread on it?"

Paihíridéráji mídaako?

I.will.tread.DEP is.it.not

Is it not thinking "I will tread on it?"

Paihíridéráji díngako.

I.will.tread.DEP it.may.be

It may be thinking "I will tread on it".

Paihíride' mídíngako.

I.will.tread.DEP it.may.not.be

It may not be thinking "I will tread on it".

Paihíride' myírajinyíro.

I.will.tread.she be.not.DEP.be

It is thinking "I will not tread on it".

Paihíride' dáakajinyíro.

I.will.tread.she is.it.DEP.be

It is thinking "Shall I tread on it?"

Paihíride' mídaakajinyíro.

I.will.tread.she is.it.not.DEP.be

It is thinking "Shall I not tread on it?"

Identificational Unreal Result Subjunctive:

*Kamubíwídikíro.**ka-mubí-wi-dik(o)-(y)iro*

UNREAL-trade-I.SUBJN-result-be

It is that I would have bought it but didn't.

*Kavaihi' mwidikíro.**ka-paihi'r(i)-m-wi-dik(o)-(y)iro*

UNREAL-tread-TRANS-I.SUBJN-result-be

It is that I would have trodden on it but didn't.

*Kavaihi' mwidí'**míko.**ka-paihi'r(i)-m-wi-di'(ko)**míko*

UNREAL-tread-TRANS-I.SUBJN-result not.be

It is not that I would have trodden on it but didn't.

*Kavaihi' mwidí'**dáako?*

I.would.have.trodden is.it

Is it that I would have trodden on it but didn't?

*Kavaihi' mwidí'**mídaako?*

I.would.have.trodden is.it.not

Is it not that I would have trodden on it but didn't?

*Kavaihi' mwidí'**díngako.*

I.would.have.trodden it.may.be

It may be that I would have trodden on it but didn't.

*Kavaihi' mwidí'**mídingako.*

I.would.have.trodden it.may.not.be

It may not be that I would have trodden on it but didn't.

RULE 2

Infinitives:

All tested verbs have high tone on the last syllable, which is the first suffix, except *bwakakí* 'cover'. This is a compound stem comprising *b(i)-wak(i)-(w)akí* (come-put-put). In this form (only) the high tone from the first root of the reduplication is retained instead of the high tone from the second root as happens in other forms of this verb.

Diná jo.

Say it.

(say.INFIN do)

Mubíná jo.

Trade.

(trade.INFIN do)

Bwakákina jo.

Cover it.

(cover.INFIN do)

Paihi'ná jo.

Tread on it.

(tread.INFIN do)

Baazi'ma'nyíná jo.

Put your shirt on.

(put.on.do.INFIN do)

Gerunds: (see note on infinitives above.)

<i>Yagaala já jo.</i>	Speak.	(speech saying do)
<i>Mubyá jo.</i>	Trade	(trading do)
<i>Bwakákya jo.</i>	Cover it.	(covering do)
<i>Paihitá jo.</i>	Tread on it.	(trading do)
<i>Baazi'ma'nyá jo.</i>	Put on your shirt.	(putting.on do)

Repetitive Gerunds:

These have a rule of their own, that is high tone at the beginning of each stem. (See note on Infinitives above.)

Likilikya yíwa'.

He dug and dug.

Máarimáarya yíwa'.

He took and took.

Múbimúbya yíwa'.

He traded and traded.

Bwakákibwakákya yíwa'.

He covered and covered it.

Páihí'páihita yíwa'.

He trod and trod on it.

Some Matching Forms with Dependent Marker:

Davaihi'mwánaji yíde.

did.I.tread.DEP I.will.do

Thinking "Did I tread on it?" I will do it.

Some Matching Nominalised/Embedded Forms:

Final pronoun suffixes, the time suffix *-gáa'* and the 'instrument' suffix *-ji/-si/-yi* take high tone in precedence over preceding suffixes. Longer forms gain an extra high tone between the stem (if applicable) and the emphasised suffix so that high tone occurs approximately every second syllable after the first.

Paihirá'mujíyainyí *widéro.*

paihirá'muji-ya-l(o)-ny(o) *widéro*

after.I.tread.on.it-EMB-M-I I.will.go

I, a man who after I tread on it, will go.

Mavaihiryá'mujíyainyí *wílaabíde.*

mavaihiryá'muji-ya-l(o)-ny(o) *wílaabíde*

after.I.do.not.tread.on.it-EMB-M-I I.will.come.up

I, a man who after I do not tread on it, will come up.

Paihi'mwijainyí *kwají* *kádiwídika.*

paihi(i)-m-wi-i-(i)-(y)a-l(o)-ny(o) *kwáji* *kádiwídika*

tread-TRANS-I.SUBJN-DEP-EMB-M-I UNREAL I.would.have.said

If I had been the one who planned to tread on it I would have said.

Paihi'mweinyí *mwáaimwa.*
paihr(i)-m-w-a-ya-l(o)-ny(o) *mwáaimwa*
 tread-TRANS-PRES.COMP-I-EMB-M-I I.sat
 I, the one who trod on it, sat down.

Paihi'mweinyíro.
 It is I who trod on it.

Paihi'mwengi *wasí'niwano.*
paihr(i)-m-w-a-ya-ngi(ro) *wasí'niwano*
 tread-TRANS-PRES.COMP-I-EMB-them I.threw
 I threw away those which I trod on.

Paihi'mwengi-ro.
 It is those which I trod on.

Paihi'mwé' *wasí'niwano.*
paihr(i)-m-w-a-ya-w(o) *wasí'niwano*
 tread-TRANS-PRES.COMP-I-EMB-she I.threw
 I threw away that which I trod on.

Paihi'mwesíro.
 It is that which I trod on.

Paihi'mweví *wangámwa'.*
paihr(i)-m-w-a-ya-vi(no) *wangámwa'*
 tread-TRANS-PRES.COMP-I-EMB-her he.saw
 It which I trod on he saw.

Paihi'mwelyí *wawakáde.*
paihr(i)-m-w-a-ya-l(o)-yi *wawakáde*
 tread-TRANS-PRES.COMP-I-EMB-he-with we.two.will.go
 With me who trod on it he will go.

Paihi'mweinyína *nyidívani'.*
paihr(i)-m-w-a-ya-l(o)-nyi(no)-na(no) *nyidívani'*
 tread-TRANS-PRES.COMP-I-EMB-M-me-REF he.is.speaking.to.me
 Concerning me who trod he is speaking to me.

Paihi'mweinyídaa'nyi *nyidívani'.*
paihr(i)-m-w-a-ya-i-nyi(no)-daa'nyi(no) *nyidívani'*
 tread-TRANS-PRES.COMP-I-EMB-M-me-from he.is.speaking.to.me
 He is talking to me first, the one who trod on it.

Paihi'mweinyídaa'nyinyíro.
paihr(i)-m-w-a-ya-l(o)-ny(o)-daa'nyin(o)-yíro
 tread-TRANS-PRES.COMP-I-EMB-M-I-from-be
 It is I the first one who trod on it.

Paihi'mweinyíbi' *nyidívani'.*
paihr(i)-m-w-a-ya-l(o)-ny(o)-bi'(ko) *nyidívani'*
 tread-TRANS-PRES.COMP-I-EMB-M-me-like he.is.speaking.to.me
 Like me who trod on it he is speaking to me.

Paihi' mweinyíre' *máa'mwa'.*
paihír(i)-m-w-a-ya-l(o)-nyi(no)-re-w(o) *máa'mwa'*
 tread-TRANS-PRES.COMP-I-EMB-M-me-POSS-she he.took
 He took that which I trod on which belongs to me.

Paihi' mweví *nyidathéro.*
paihír(i)-m-w-a-ya-ví(no) *nyidathéro*
 tread-TRANS-PRES.COMP-I-EMB-her he.will.speak.to.me
 In that I trod on it he will speak to me.

Paihi' mwevína *nyidathéro.*
paihír(i)-m-w-a-ya-ví(no)-na(no) *nyidathéro*
 tread-TRANS-PRES.COMP-I-EMB-her-REF he.will.speak.to.me
 Concerning that I trod on it he will speak to me.

Paihi' mwevídaa'nyi *nyidathéro.*
paihír(i)-m-w-a-ya-ví(no)-daa'nyi *nyidathéro*
 tread-TRANS-PRES.COMP-I-EMB-her-from he.will.speak.to.me
 From my treading on it he will speak to me.

Paihi' mweyába *nyidathéro.*
paihír(i)-m-w-a-ya-(víno)-ya-ba(no) *nyidathéro*
 tread-TRANS-PRES.COMP-I-EMB-her-EMB-place he.will.speak.to.me
 At my treading on it he will speak to me.

Paihi' mwegáa' *nyangámwako.*
paihír(i)-m-w-a-ya-gaa' *nyangámwako*
 tread-TRANS-PRES.COMP-I-EMB-time he.saw.me
 The time I trod on it he saw me.

In the absence of these morphemes, high tone occurs on the first suffix.

Paihi' mwéba *ditháaka.*
paihír(i)-m-w-a-ya-ba(no) *ditháaka*
 tread-TRANS-PRES.COMP-I-EMB-place you.stand
 Stand where I trod on it.

Paihi' mwébanna *divaihíko.*
paihír(i)-m-w-a-ya-ban(o)-na(no) *divaihíko*
 tread-TRANS-PRES.COMP-I-EMB-place-REF you.tread
 Tread where I trod on it.

Paihi' mwérisi *maralíkidéro.*
paihír(i)-m-w-a-ya-rí'(ko)-zi *maralíkidéro*
 tread-TRANS-PRES.COMP-I-EMB-TSG-with I.will.bury
 With it on which I trod I will bury it.

Paihi' mwébadaa'nyi *dáa'mwano.*
paihír(i)-m-w-a-ya-ba(no)-daa'nyi(no) *dáa'mwano*
 tread-TRANS-PRES.COMP-I-EMB-place-from I.stood
 From where I trod on it I'm standing.

<i>Paihi'mwébaabi'</i>	<i>áyina paihíríde.</i>
<i>paihír(i)-m-w-a-ya-baal(o)-bi'(ko)</i>	<i>áyina paihíríde</i>
tread-TRANS-PRES.COMP-I-EMB-same-like	again I.will.tread
Just as I trod on it I will tread again.	

Identificational Non-future with Change of Subject (Sequential):

The suffix *-yiro* gains high tone in precedence over the preceding syllable.

Kamubíwanyíro.
ka-mubí-w-an(o)-yíro
 CS-trade-PRES.COMP-I-be
 It is after I traded.

Kavaihi'mwanyíro.
ka-paihír(i)-m-w-an(o)-yíro
 CS-tread-TRANS-PRES.COMP-I-be
 It is after I trod on it.

Kavaihi'mwá miko.
 I.trod.CS be.not
 It is not after I trod on it.

Kavaihi'mwá dáako?
 I.trod.CS is.it
 Is it after I trod on it?

Kavaihi'mwá midaako?
 I.trod.CS is.it.not
 Is it not after I trod on it?

Kavaihi'mwá dingako.
 I.trod.CS it.may.be
 It may be after I trod on it.

Kavaihi'mwá midingako.
 I.trod.CS it.may.not.be
 It may not be after I trod on it.

RULE 3

Present Complete with Dependent Marker *-ji*:

Paihí'mwanaji díwano.
 Thinking "I have trodden on it", I talked.

Non-future Tenses preceded by *berí* 'what' or *be'ná* 'why' have the same tone as without.

Mubíwano.
 I traded.

Berí' mubíwano.
 What did I trade?

Be'ná mubíwano?

Why did I trade?

Baazí' ma'niwano?

I put my shirt on.

Berí' baazí' ma'niwano?

What shirt did I put on?

RULE 4

Non-future Dubitative with Dependent Marker -jì:

A high tone occurs on the penultimate syllable after a low syllable.

Dahaváíhi' mwanáji wangámanige.

Thinking "I may have trodden on it" I'm looking.

Non-future Dubitative preceded by *berí'* 'what' follows the same tone rules as without.

Dahamúbiwano.

I may have traded.

Berí' dahamúbiwano?

I may have traded what?

APPENDIX 3: MORPHOPHONEMIC RULES

Many morphophonemic rules between roots and between roots and affixes have the effect of shortening words as much as possible. These rules are general and there are exceptions. This tantalising study cannot be completed without a detailed comparison of related languages to see possible origins of roots. See footnote 4 also.

- (a) The noun marker -ya is written as *ia* after *w*. The *a* is syllabic. For example *nígwia* 'necklace/money'.
- (b) The letter *v* can be lost before *y* and *w* in the speech of people about 40 years of age and under, as in examples (11c) and (39d). Consider also *taavyá/taayá* 'girl' (the *v* is present in *taavi* 'girl, title'). However *v* is retained before *y* after either of the noun markers -*ka* or -*ta* has been dropped, as in example (5a).
- (c) The letters *ng* can be lost before *w* in the speech of people about 40 years of age and under, as in example (8c). Consider also *jawe/jangwe* 'grub'. However *ng* is retained before *w* after the noun marker -*na* has been dropped, as in example (5d).
- (d) When a non-final root ends with *la* (nouns) or *li* (verbs) the vowel is dropped and the *l* becomes *i* before a consonant or *w*, resulting in a *Vi* sequence in which *V* is the syllable nucleus. The *Vi* sequence **i* becomes *i*, as in example (8b). Consider also:

mwaaimwano
mwaal(i)-m-w-ano
 sit-TRANS-PRES.COMP-I
 I sat down.

- (e) The sequences *aya* and *aaya* become *e* word-medially. For example:

wapemáye
wapaayá-maye
 sweet.potato-flower
 kind of flower

maa'mweinyí...
maar(i)-m-w-a-ya-i-nyi
 take-TRANS-PRES.COMP-I-NOM-M-I
 I the one who took it...

However if a non-final stem in a noun compound ended in *e* (from *aya*) the *-ya* is dropped and *a* retained, as in example (7c). Consider also:

mayahwanála
maye-kwanala < maya(ya)-kwanala
 flower-grove
 flower garden

- (f) Word-medial voiceless stops and affricates are longer than word-initial ones. Grammatically they include glottal stop preceding *p*, *t*, *k* or *s*. Glottal stop occurs syllable-finally before nasals and before voiced (or voiceless) stops and affricates, also word-finally and very occasionally before semivowels, as in examples (4c) and (4e). Consider also *yayo/ya'yo* 'yes' and *wa'waaya* 'sore'. When it is possible to isolate the original root, glottal stop always results as a morphophonemic change from *w*, *v*, or *r*, as in example (5a). Consider also:

a'mwéwo/a'mwé'
 woman, SUBJ

Maa'mwano.
maar(i)-m-w-ano
 take-TRANS-PRES.COMP-I
 I took it.

Sometimes the two roots remain separate, as in example (5f). The position of the perturbed tone shows that a syllable has been dropped. Compare example (37a) with (37b). Consider also:

yaawariráaka
yaawar(yá)-taaka
 pig-rubbing
 pig rubbing itself
 (*rír* could have become *t*)

- (g) Nasals assimilate to the point of articulation of the following nasal, stop or affricate, as in example (4c).

If the following stop is already prenasalised it absorbs the nasal, as in example (4d).

Sometimes the two roots remain separate, as in example (8d). Compare with the following example:

maabáaka
maang(a)-baaka
 teeth-light
 smile

In nouns when the original stem included a single nasal (i.e. the noun marker was not *-na*) it is lost before a following root beginning with a nasal, as in example (5c). An exception to this is example (8e).

- (h) There is a close relationship between *wi* and *u*, *yi* and *i* respectively, as in example (5a). Consider also:

Duthano.
d(i)-wi-d(i)-ano
 COM-to.him-say-COM.SG
 Speak to him.
 (The sequence **dw* does not occur.)

Minna.
m(a)-y(i)-in-na
 NEG-do-2SG.SUBJN-about
 Don't do it.

bwijá
bul(a)-ja
 colour.in.patches-coloured
 coloured
 (see Appendix 3(d))

After *r* (which is flapped *l* in this position), *yi* becomes *i*. For example:

Mamaariwano.
ma-maar(i)-yi-w-ano
 NEG-take.do-PRES.COMP-I
 I didn't take it.

- (i) When *t* or *d* are followed by *y* the combination becomes *s* or *j* respectively. For example:

Jo.
d(i)-y(i)-o
 COM-do-COM.SG
 Do it.

- (j) When one morpheme ends in a vowel and the next begins with a vowel the first is dropped, as in examples (15d) and (37c). Consider also:

a'mwá'mwe
a'mwé-a'mwé < a'mwá(ya)-a'mwé
 doll/model

However, on rare occasions both vowels are retained. For example:

<i>yaawari-ánga</i>	compare:	<i>yaawaránga</i>
<i>yaawar(yá)-anga</i>		<i>yaawar(yá)-anga</i>
pig-house		pig-many
pig house		many pigs
<i>Baaru-a'mwéi</i>		
<i>baaru(ya)-a'mwé-i</i>		
Baaruya-person-M.SG.SUBJ		
Baaruya man		

The final vowel on verb stems (*i*) is dropped between roots unless needed for transition. If its tone was low then it is lost. Examples of final high on verb roots are rare. The first syllable of the following root is high in any case, except that when *warí* 'lie' or *wakí* 'put' are stem-final, the high tone occurs on their second syllable instead of the first, as in examples (35c), (35d) and (41f). Consider also:

mubánga
mubí-anga
 trade-house
 store

- (k) Word-initial *p*, *t*, *s* and *k* become *v*, *r*, *z* and *h* respectively before vowels or semivowels. The consonants *b*, *d*, *j* and *g* become *v*, *th*, *z* and *h* respectively in the syllable following a prenasalised stop. That is, prenasalised stops do not usually occur in contiguous syllables. Word-initial *t* becomes *th* medially following non-syllabic *i* which has come from *l*, as in example (7b).

Dírámo.
di-tam(i)-o
 COM-hit-COM
 Hit it.

Dívyo.
di-p(i)-yo
 COM-shoot-COM
 Shoot it.

Díhisílo.
di-kisí(i)-o
 COM-saw-COM
 Saw it.

Dívámo.
di-b(i)-amo
 COM-come-COM
 Come.

Dítháno.
di-d(i)-ano
 COM-say-COM
 Speak.

Note example (43c), where *d* does not become *th*, and example (48a), where *j* does not become *z*. If it did, the morpheme *-imo* 'let me' would be lost. Consider also:

Dizáko.
dí-jav(i)-ko
 COM-loosen-COM
 Loosen it.

Dihílo.
dí-gil(i)-o
 COM-count-COM
 Count them.

yuyagaa'(ko)
yuya-gaa'
 all-time
 all the time

dahaa'
da-gaa'(ko)
 this-time
 now

- (l) When *aa* would occur in contiguous syllables the first usually changes to *a*. For example:

Maarimo.
maari-mo
 take-I.will.now
 I will take it.

Má'mwaano.
maar(i)-m-w-aano
 take-TRANS-PRES.COMP-2SG
 You took it.

In long words *aa* is frequently shortened to *a*, as in examples (39d) and (39e).

- (m) The noun clitic *-yíro* 'be' becomes *-íro* after *k* and *ng*, as in example (15e). Consider also:

A'mwéngiro.
a'mwé-ng(o)-yíro
 person-F.PL.SUBJ-be
 They are women.

- (n) Sentence- or word-final *o* rarely occurs, except in pedantic speech. It more often changes to *a*, or else the whole final syllable *no*, *ko*, *lo*, *wo* or *ro* is dropped or contracted by dropping the final *a* and changing *l* to *i* or *w* to glottal stop. For example:

Yíwano. / Yíwana. / Yíwa.
 I did it.

Yíwako. / Yíwaka. / Yíwa'.
 He did it.

(When *ko* is dropped the glottal component of *k* is retained.)

a'mwélo / a'mwéla / a'mwéi

the man

a'mwéwo / a'mwéva / a'mwé'

the woman

(At the time of writing I know of no reason for *wo* becoming *va* instead of **wa*.)

Yivánigawo. / Yivánigava. / Yivániga'.

They are working.

A'mwelyíro. / A'mwelyíra. / A'mwelyí.

He is a man.

A'mwesíro. / A'mwesíra. / A'mwesí.

She is a woman.

(When *-wo* is reduced to *-'* before *-sí* 'with' the glottal is absorbed into the *s*, as in example (20b). When *-wo* is reduced to *-'* before *-yíro* 'be' the combination of glottal plus *y* becomes *s*, as in example (29a). The sequence *y* rarely occurs.

APPENDIX 4: ABBREVIATIONS AND SYMBOLS

CSG	curved singular	NOM	nominaliser
circ	circular	PHR	phrase
COM	command	PL	plural
COMP	complete	POSS	possessive
CS	change of subject	PRES	present
DEP	dependent	QUES	question
DU	dual	REF	reference
DUB	dubitative	SEQ	sequential
DUR	durative	SG	singular
DYN	dynamic	sp.	species
EMB	embedder	SS	same subject
F	feminine	STAT	stative
FUT	future	SUBJ	subject
GER	gerund	SUBJN	subjunctive
INCOMP	incomplete	TKSG	long thick singular
INFIN	infinitive	tog	together
INTER	interrogative	TRANS	transition
M	masculine	TSG	long thin singular
N	neuter	UNDES	undesired
NEG	negative	V	vowel

.	length: half long
:	length: long
ˈ	high tone
/	alternatively
-	between the meanings of roots and affixes
.	between words within the meaning of a root or affix
?	form or meaning not known
#	zero – there is a significant absence of morpheme
()	in morpheme-by-morpheme transcription, around letters which are dropped when the morphemes become one stem or word

ABBREVIATIONS AND SYMBOLS USED TO DESCRIBE INTONATION

CIS	Clause Stress
EXCL	exclamation
H	high intonation on last syllable
HES	hesitation
HL	high-low glide on last syllable
H to L	example begins high and ends low
Lar	Laryngealisation on last syllable
L	low intonation on last syllable
LH	low-high glide on last syllable
L to H	example begins low and ends high
M	mid intonation on last syllable
ML	mid-low glide on last syllable
ParS	Paragraph Stress
PhS	Phrase Stress
PS	non-silent pause
SenS	Sentence Stress
VH	very high intonation on last syllable
:	intonational length
/	division between phrases
//	division between clauses

