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TONDANO PHONOLOGY AND GRAMMAR

by

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PREFACE

Field research on Tondano was carried out in North Celebes, Indonesia during the periods August-December, 1968 and October, 1969 - March, 1970. Further work was done with a number of Tondanese in Australia.

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The study was commenced during the tenure of a teaching fellowship in the Department of Anthropology, The University of Sydney. While in that department I received generous help from Professor W.R. Geddes and Dr. A. Capell, to both of whom I express my thanks.

From 1971 my study was financed by a Commonwealth post-graduate research award within the Department of Indonesian Languages and Literature, The Australian National University. I am most grateful to Professor A.H. Johns of that department for his support. I especially wish to thank Dr. D.J. Prentice for his guidance throughout the writing of this thesis. His detailed comments on drafts and readiness to discuss my work at length have resulted in innumerable improvements.

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Canberra

June, 1973

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Possible alternative analyses of some sections in Chapter Five became apparent too late for inclusion in the body of the work. Instead, these alternative treatments are mentioned in footnotes to the relevant sections.

Canberra

December, 1973

CHAPTER ONE

1. INTRODUCTION

1.1. GENERAL BACKGROUND

The Tondano language is spoken in Minahasa, the eastern-most region of the North Celebes peninsula. There are about seventy thousand Tondanese, living around the perimeter of Lake Tondano and in the area between the lake and the Minahasan east coast. The largest concentration of speakers is an estimated thirty thousand in the town of Tondano.

The boundaries of the Toulour administrative district follow closely the limits of the Tondano-speaking area and the name Toulour is sometimes used to designate the Tondano people and language.

There are three dialects of Tondano. The largest, both in area and number of speakers, is found in and around the town of Tondano in the north, along the north-east shore of the lake and eastward to the coast. The other dialects centre around Remboken in the west and Kakas in the south. A comparison of basic vocabulary items from the Tondano and Kakas dialects gives a cognate percentage of 83.

Several thousand Tondanese have settled in southern Minahasa and considerable numbers live in Manado, the provincial capital of North Celebes, situated about 35 km. north-west of the Tondano-speaking area.

Tondano is most closely related to the adjacent languages, Tombulu in the west and Tonsea in the north, with each of which it shares about 70 percent of basic vocabulary. These three form the northern branch of a Minahasan language group which also includes Tontemboan and Tombatu (Tonsawang), spoken in the southern part of Minahasa.

These languages would appear to have their closest links with the languages of the Philippines but are probably not closely related enough to be assigned to the Philippine group. Dyen (1965) places Tontemboan, the only Minahasan language used in his lexicostatistical study, in a

separate branch of his Malayopolynesian Linkage, co-ordinate with the Hesperonesian Linkage of which the Philippinè Hesion is a lower level subgroup. It is expected, however, that the Minahasan languages will prove to be more closely linked to the Philippine group than Dyen's study suggests.

The only Minahasan language on which detailed information has been published is Tontemboan, for which we have Schwarz's texts (1907) and dictionary (1908) and Adriani's grammar (1908). Very little has been published on any of the other languages and for some almost the only information is in nineteenth century word lists by Jansen (1855) and Niemann (1869-70). Adriani (1925) contains a bibliography of works (mostly of no linguistic import) to that date and Uhlenbeck (1971) lists the few additions since then. Brief surveys of the languages can be found in Adriani (1925) and Sneddon (1970).

The only publications concerned solely with Tondano are a number of short articles by Wantalangi and Watuseke. These are listed in the bibliography. Those by Wantalangi are of little value but Watuseke provides a number of texts and some other useful information. There is also a short Tondano-Indonesian dictionary of poor quality by Lengkong and Wantalangi.

The present analysis is of the northern dialect, all informants being from the town of Tondano or from nearby villages. The principal informants were all more than 55 years of age at the time of the study. A number of differences are evident in the speech of younger Tondanese but these are not treated here except for phonological changes which are mentioned in section 2.5. Informants were bilingual, as are all Tondanese, speaking both Tondano and Menado (Minahasan) Malay as first languages. Tondanese are literate, learning Standard Indonesian at school, and although there is little or no call for writing in Tondano, they are able to do so. There is, however, no conventional Tondano orthography and each person adapts the Indonesian system as he thinks best, this resulting in considerable variation in spelling.

Use was made of a number of Tondanese texts published by Watuseke (see bibliography). Passages from the texts used as examples were sometimes abbreviated or otherwise altered, usually in order to highlight a point being illustrated and/or to delete irrelevancies. Such modification to the texts was always checked with informants.

1.2. THE DESCRIPTION

Tondano grammar is analysed here according to the tagmemic theory introduced by Pike (see Pike, 1967) and developed by Longacre (1960, 1964).

A limited use is made of grammatical transformations. The incorporation of transformations into tagmemic grammar recognised as a legitimate method of simplifying the grammatical statement and of revealing the underlying relationships between two or more different constructions which have the same meaning. The use of transformations in a tagmemic grammar is suggested by Longacre (1964) and considered in detail by Cook (1964).

This description of Tondano grammar is aided by two sorts of transformational rules: those which produce Basic Verbal clauses from underlying structure (mapping rules - see 3.1.0.11) and those which act on such Basic clauses either to change the order of nuclear clause level tagmemes (permutation rules - see 4.1.2) or to produce derived clauses (derivational rules - see 6.1).

Mapping rules specify the correlations which exist between underlying case relationships and surface grammatical functions. Two or more constructions which differ as to voice but which have the same meaning (a comparison can be made with active and passive sentences in English) are linked together, not by a transformation deriving one from the other, but by a shared set of mapping rules deriving them all from the same underlying base.

A number of tagmemic studies of Philipping languages recognise the occurrence of underlying semantic roles and attempt to correlate these with surface grammatical roles. The terms they use, such as *dramatis personae*, situational roles, participant roles, refer to notions essentially the same as those which Fillmore (1968) calls cases. The term case was, however, used by Kerr (1965) in a paper on Cotabato Manobo clauses, several years before it was popularised by Fillmore.

The classification of Verbal clauses (see 3.1) according to the correlation between underlying semantic roles and surface grammatical roles is based on the method proposed by Kerr for Cotabato Manobo. Here Kerr's proposals have been developed and formalised, with some modifications, in an attempt to adequately account for the full Tondano clause classificatory system. A tagmemic description of surface structure fits well with a case analysis of underlying structure, grammatical functions correlating with case relationships and their exponents identifying the participants in the action.

The arrangement of the grammar, especially that of Verbal clauses in Chapter Three, owes much to Reid's Ivatan syntax and to Prentice's more extensive grammar of Timugon Murut.

In the chapters dealing with syntax all Tondano examples are accompanied by literal/structural translations as well as by free English translations. Literal/structural (l/s) translations attempt to specify

both tagmemic slots and their exponents in so far as this is practicable and useful. An attempt to provide too much information would result in loss of clarity and so defeat its own purpose. Examples have the format illustrated below. The top line is the Tondano example, the second line is the l/s translation and the third line is the free English translation:

 si tuama makelan
T: (cm man) P: (walk_{sv})

The man is walking.

Where possible exponents are given an English translation but where there is no equivalent to a word the label for the class of items of which it is a member is given instead. Thus, in the above example, *si* specifies that the following noun, *tuama man*, is animate and singular. Since no adequate lexical equivalent can be given in the l/s translation *si* is identified by *cm* which is the label for the set of class markers of which *si* is a member. The l/s translation to the above example indicates that the construction consists of two tagmemes, Topic (T) and Predicate (P), but lower level tagmemes are omitted. Thus, the Topic is shown to contain *si tauma the man* but it is not indicated that *si* expounds the Classifier slot and *tuama* the Head slot of a Noun phrase expounding Topic.

An attempt is made to keep l/s translations of examples at the same level as uniform as possible but no fast rules are kept and the content of these translations is varied if the circumstances warrant it.

Reid (1966) and Prentice (1971) provide reading and exponence rules for all examples of phrase level constructions. This is felt to be unnecessary because each example (i) represents a particular reading (with the substitution of lexical items for names of classes) of a tagmemic formula already given in the formal statement for the particular construction type and (ii) is provided with an l/s translation. An exception is made in the section on Identificational clauses (see 6.2.2) where, because internal complexity makes it impossible to provide adequate l/s translations, rewrite operations are fully carried out for some examples, as suggested by Longacre (1964).

This work aims to describe the structure of the Tondano language at all levels from sentences to phonology. Since such an extensive coverage is aimed at it is obvious that a detailed statement of any one part of the language is not feasible. Consequently, no part of the grammar can be regarded as a full or final statement. In some sections it has been necessary to ignore various minor construction types while only

partially describing others. Inevitably some parts of the grammar will suffer from lack of data and no statement should be regarded as more than tentative.

In many parts of a grammatical description reference to structures not yet described will be necessary. The chapters below do not follow the grammatical hierarchy in any set direction but aim to give the clearest description by ensuring the least amount of forward referencing.

1.3. ABBREVIATIONS AND SIGNS

In this section are given abbreviations used in formal statements and signs used throughout the grammar. Some abbreviations occur in the grammar both capitalised, as function labels, and without capitals, as exponential labels or as subscript labels. In such cases only the capitalised abbreviations are listed here. In some instances a symbol has two denotations (e.g. S represents both Sentence and Subject) but such identical labelling is avoided where there might be a possibility of confusion.

A'	Associative case
AB	Active Battery
Adv	Adverb
an	animate
Ap	Appositive
At	Attributive
Att	Attributing (sentence)
AV	Active verb (stem class)
Ax	Axis
B	Base
B'	Benefactive case
Bas	Basic (clause)
C'	Causative case
CB	Causative Battery
Cen	Centre
Ch	Characterisation
Cj	Conjoined (clause)
Cl	clause
clo	close (apposition)
cm	class marker
Cmp	Comparative
Cmz	Complementizer

cn	common (noun)
Co	Co-ordinating (sentence)
co	co-ordination
Com	Complement
Com	Compound (clause)
Cs	Classifier
CV	Causative verb (stem class)
Deg	Degree
Dem	Demonstrative
Des	Descriptive
Ex	Existential
Excl	Exclamation
H	Head
I	Instrument
I'	Instrumental case
Id	Identificational
Imp	Imperative
in	inanimate
Ind	Independent (clause)
Int	Interrogative
int	internal (apposition)
IV	Instrument voice
loc	locative
M	Margin (sentence slot)
M	Manner (clause slot)
Mes	Measure
Mod	Mode, modal
N	Noun phrase, Noun (clause), noun
NB	Non-volitional Battery
Neg	Negative
No	Number
Nom	Moninalised
Num	Numeral
NV	Non-volitional verb (stem class)
O	Object
O'	Objective case
OV	Object voice
P	Predicate
Ph	Prohibitive
pl	plural
pn	proper (noun)
Po	Possessor

Pp	Predicate phrase
Pr	Pronoun phrase, pronoun
P-T	Pro-Topic
qn	quantitative
Qt	Quotation
Qu	Qualifier, Qualifying (clause)
R	Referent
R'	Referential case
R-A	Relator-Axis
RB	Reciprocal Battery
Ref	Referential
Rel	Relator
Res	Response
rm	relator (relation marker)
RV	Reciprocal verb (stem class)
RV	Referent voice
S	Sentence
S	Subject
S'	Subjective case
Seq	Sequential
sg	singular
Sim	Similitude
Smp	Simple (sentence)
Sof	Softner
Sub	Subordinating (sentence)
sub	subordination (relator)
SV	Subject voice
T	Topic
Tc	Topic Concord
Te	Time
Th	Theme, Thematic
tm	topic marker
V	Verb phrase, Verbal (clause), verb
Voc	Vocative
X	} variables
Y	
Z	

/x/	X is a phoneme
[x]	X is a phone
{x}	X is a morpheme
[[x]]	X is a hypermorpheme
<x>	X is a set of hypermorphemes
(x)	X is optional
# X	X follows a pause
X ~ Y	X and Y alternate freely
X → Y	X is rewritten as Y
X : Y	X is expounded by Y
X →	X is transformed into Y
X + Y	X and Y are a string on the same level

$\left\{ \begin{array}{c} X \\ Y \end{array} \right\}$ either X or Y but not both

$\left[\begin{array}{c} X \\ Y \end{array} \right] + \left[\begin{array}{c} Z \end{array} \right]$ either X + Z or Y + anything

X → Y / ___ Z X is rewritten as Y before Z

X → Y (+...) X is rewritten as a string consisting obligatorily of Y followed optionally by other tagmemes as previously specified.

CHAPTER TWO

2. PHONOLOGY

2.1. NON-SEGMENTAL PHONOLOGY

2.1.0. In this section are described the non-segmental phenomena of stress, pause, juncture, pitch and intonation.

2.1.1. Stress

2.1.1.0. There are three degrees of stress: unstress (unmarked), word stress (') and phrase stress (`).

2.1.1.1. *Unstress*

Any syllable not covered in section 2.1.1.2. is unstressed.

2.1.1.2. *Word Stress*

2.1.1.2.0. Word stress is treated as phonemic because its placement does not appear to be always predictable on purely phonological grounds. In most words the placement of stress conforms to the statement in section 2.1.1.2.1. This is called regular stress and is not indicated in the phonemic orthography. In the presence of some morphemes word stress does not conform to the statement on regular stress placement. This is called irregular stress and is described in section 2.1.1.2.2. Irregular stress is marked in the phonemic orthography in this chapter, but is not indicated in subsequent chapters. No instances of minimal stress contrast have been recorded but contrast in terms of CVCV structure does occur.

2.1.1.2.1. *Regular Word Stress*

Stress usually falls on the penultimate syllable of the word:

/wale/	[wáɛ]	house
/wanua/	[wanúa]	village
/karimaŋkaʔ/	[kaʔimáŋkaʔ]	spider

Word stress shifts from the penultimate syllable under the following conditions:

(a) A long vocoid, which is interpreted as two phonemic syllable nuclei, takes stress if it is in the last or second-last phonetic syllable in the word:

/kinaaŋku/	[kíná:ŋku]	has been eaten by me
/weenu/	[wé:nu]	will be given by you
/tikoo/	[tíkú:]	throat

If both the last and second-last phonetic syllables contain long vocoids, then the last takes stress:

/məŋaəŋaən/	[məŋa:ŋá:n]	is continually eating
-------------	-------------	-----------------------

(b) If the penultimate syllable nucleus is /ə/ the following changes occur:

(i) Stress falls on the final syllable if its nucleus is a vowel other than /ə/ and it is separated from the penultimate syllable by just one consonant, provided the word is of two or three syllables or is of four or more syllables in which the third-last syllable nucleus is also /ə/:

/səraʔ/	[səʔáʔ]	fish
/rimədey/	[řimədəý]	is standing
/məɾəɾədey/	[məʔəʔədəý]	intends to stand

(ii) In words of four or more syllables in which conditions listed under (i) hold, except that the third-last syllable contains a vowel other than /ə/, the third-last syllable takes stress:

/kaənəna/	[ká:nəna]	will be eaten by him
/wiŋkotəna/	[wiŋkú:təna]	will be asked by him

Penultimate schwa takes stress under conditions not listed above:

/təmpok/	[təmpók]	tip, end
/kaənəŋku/	[ka:nəŋku]	will be eaten by me
/wəʔŋəl/	[wəʔŋəl]	stupid
/rəpət/	[řəpət]	fast

(c) If the penultimate vowel is immediately preceded by a lower vowel, stress occurs on the lower vowel:

/reidəm/	[řéidəm]	<i>dark</i>
/lourən/	[lóuřən]	<i>will be taken to the lake</i>
/maeker/	[máεkεř]	<i>is coughing</i>
/maoas/	[máɔas]	<i>is washing</i>

(d) When the penultimate vowel is separated from the preceding vowel by glottal stop the preceding vowel takes stress if it is identical with the penultimate vowel or is lower than it:

/woʔodo/	[wóʔodo]	<i>tomorrow</i>
/raʔipeʔ/	[ř^áʔipeʔ]	<i>not yet</i>
/wətiʔila/	[bəříʔila]	<i>there</i>

2.1.1.2.2. Irregular Word Stress

In some environments stress does not conform with the statement in section 2.1.1.2.1. These environments appear to be morphological rather than phonological. The most important of these are stated here.

(a) When prefix {maka-}² *owner* (see 8.1.2e) is attached to a two-syllable stem beginning with a vowel, stress fluctuates freely between the third-last and second-last syllables if {maka-}² is manifested as maka-:

/makaokiʔ/	~	/makaókiʔ/	<i>owner of the child</i>
/makauma/	~	/makaúma/	<i>owner of the field</i>

When allomorph makaʔ- occurs before a vowel, stress always falls on the second-last syllable (cf. 2.1.1.2.1d):

/makaʔúma/	<i>owner of the field</i>
/makaʔásu/	<i>owner of the dog</i>

(b) Initial ni- on pronouns does not take stress:

/nikó/	<i>you</i>
/nikéy/	<i>we</i>

(c) Postclitic pronoun {-mey ~ -məy} *our; by us* always takes stress if it is the last (or second-last) syllable in the word:

/baleméy/	<i>our house</i>
/nialiméy/	<i>has been carried by us</i>

(d) When a prefix ending in /Vʔ/, other than that mentioned in (a)

above, precedes a two-syllable stem beginning with a vowel, stress varies freely between the third-last and second-last syllables if the vowel of the prefix is of the same quality as, or lower than, the following stem vowel. Elsewhere, e.g., within a morpheme, stress would always fall on the third-last syllable (see 2.1.1.2.1d):

/ne[?]eret/ ~ /ne[?]éret/ *belt*
 /ma[?]isiŋ/ ~ /ma[?]ísiŋ/ *are quarrelling*
 /saŋa[?]aka/ ~ /saŋa[?]áka/ *one stem (of plant)*

Contrastive stress in terms of CVCV patterns is shown by the following pairs:

/baleméy/ *our house* and /kawoley/ *ill-mannered behaviour*
 /nikó/ *you* and /nike/ *fish up*
 /ka[?]ápa/ *or* and /ma[?]apas/ *swallow (bird sp.)*

2.1.1.3. Phrase Stress

Word stress is replaced by stronger stress on the last word of a phrase:

/bale/ [bàle] *the house*
 /bale waŋko[?]/ [bále wàŋkɔ[?]] *the big house*
 /bale waŋko[?] rua/ [bále wàŋkɔ[?] řùa] *the two big houses*

2.1.2. Pause

Any halt in the flow of speech, whether a momentary pause or a longer silence, may have an influence on the adjacent segmental phonemes. Any such stretch of silence is called pause and is represented /#/ . The influence of pause on segmental phonemes is described in the treatment of the individual phonemes in section 2.2.1.

2.1.3. Word Juncture

Word juncture is a boundary between two words and is signalled by the phonological features listed below. In phonemic script juncture is indicated by a space between words.

(a) A sequence of two identical vowels is manifested as two short syllabic vocoids and not as one long vocoid as it is within the word:

/rua asu/ [řúaàsu] *two dogs* (cf. /kaanu/ [ká:nu] *your rice*)
 /si ina[?]/ [siína[?]] *mother* (cf. /wiiru/ [ví:řu] *your rice*)
 /toko oki[?]/ [t̥ɔ́kɔ̀ð̀ki[?]] *small shop* (cf. /tikooku/ [t̥ikɔ́:ku] *my throat*)

In slower speech a glottal stop may appear between the two vowels, especially between two low vowels:

/rua asu/ [ʔúaʔàsú] *two dogs*

(b) When juncture occurs between /a/ and /i/ or /u/, /a/ is manifested as [a] and not as a raised phone as it is within the word (see /a/ in 2.2.1.):

/kapaya itiʔi/ [kapáyaiṭiʔi] *that papaw*

/lima uraŋ/ [límaùʔraŋ] *five children*

When the subordination relation markers *sa* and *ka* (see 7.2.4.) are followed by a high vowel both stress and the quality of /a/ are affected so that one phonological word results:

/sa + itu/ → /saitu/ [sʰáit̪u] *if it*

/ka + itu/ → /kaitu/ [kʰáit̪u] *because it*

(c) When juncture comes between a lower vowel and a higher vowel stress is unaffected; the higher vowel still takes stress if it is in the penultimate syllable:

/lima uraŋ/ [límaùʔraŋ] *five children*

/rua ipus/ [ʔúaipus] *two tails*

The relators *sa* and *ka* are affected as indicated in (b) above.

(d) /ə/ can follow vowels other than /a/ (cf. section 2.4.2.):

/wale əsa/ *one house*

/nu əsa/ *alone*

Between final /a/ and initial /ə/ a glottal stop occurs in slow speech:

/kapaya əsəm/ [kapáyəʔəsəm] *sour papaw*

/wanua əsa/ [wánúaʔəsà] *one village*

In other than slow speech assimilation occurs, resulting in a long low vocoid which takes stress if it is the second-last (phonetic) syllable. Thus one phonological word results:

/kapayaəsəm/ [kapayá:səm] *sour papaw*

/wanuaasa/ [wánuá:sa] *one village*

When /ə/ follows another vowel at a morpheme boundary within the word such assimilation occurs even in slow, careful speech.

(e) The likelihood of schwa being inserted between two consonants varies according to whether the cluster is within a word or separated

by word juncture (see 2.4.1.). In particular, when juncture occurs between two identical consonants they are not separated by schwa as obligatorily occurs within the word. A sequence of two identical phonemic consonants occurs, manifested as a long continuant or a held stop:

/ŋaran ni tuama/ [ŋářan:ituáma] *the man's name*
 /mapurut tali/ [mapúřut-áli] *is picking up the rope*

2.1.4. Pitch

There are three phonemic pitch levels. These are low pitch /1/, medium pitch /2/ and high pitch /3/.

2.1.5. Intonation

Intonation is phonemic, as the sole contrast between two utterances may be the different intonation contours accompanying them. Intonation contours are distinguished by different changes among the three pitch levels.

Two contrastive clause intonation contours occur: identificational and neutral (or non-identificational) contours. Identificational contour occurs on an Identificational clause (see 6.2.2.) and is characterised by a sharp rise to /3/ on the last syllable of the Predicate phrase. Neutral contour occurs on all other clause types and is marked by a relatively level contour over the clause on pitch /2/.

Two contrastive sentence intonation contours occur: declarative and interrogative contours. Declarative contour is characterised by a fall to pitch /1/ sentence-finally. Interrogative contour is characterised by a rise to /3/ sentence-finally.

When a clause occurs sentence-finally the clause and sentence intonation contours combine to form a four-way contrast of intonation patterns:

Neutral declarative pattern:

si tuama si mapa'yaŋ / 221
The man is working.

Neutral interrogative pattern:

si tuama si mapa'yaŋ / 223
Is the man working?

Identificational declarative pattern:

si tuama si mapa'yaŋ / 231
It is the man who is working.

Identificational interrogative pattern:

si tuama si mapa'yaŋ / 233

Is it the man who is working?

2.2. SEGMENTAL PHONEMES

2.2.0. There are twenty two segmental phonemes: sixteen consonants and six vowels. These are shown in Table I.

TABLE I: SEGMENTAL PHONEMES

		CONSONANTS			
		labial	alveo-dental	velar	glottal
stops	voiceless	p	t	k	ʔ
	voiced	b	d	g	
nasals		m	n	ŋ	
fricatives		w		ɣ	
vibrant			r		
sibilant			s		
lateral			l		
semi-vowel			y		
		VOWELS			
		front	central	back	
	high	i		u	
	mid	e	ə	o	
	low		a		

2.2.1. Description of Phonemes

This section lists the segmental phonemes, describes their allophones and gives the distribution of the allophones.

Voiceless stops

- /p/ [p] voiceless unaspirated released bilabial stop: /pitu/ [pʰitu] *seven*, /rəpət/ [rəpətʰ] *fast*, /liʔlip/ [liʔlip] *swim*
- /t/ [t̚] voiceless unaspirated released dental stop: /taʔan/ [t̚áʔan] *but*, /pitu/ [pʰitu] *seven*, /rəpət/ [rəpətʰ] *fast*

- /k/ [k̥] voiceless unaspirated released front velar stop. Occurs before front vowels and after front vowels word finally: /okiʔ/ [ʒ̥k̥iʔ] *little*, /maeker/ [maé̃k̥eʔ] *is coughing*, /liʔlik/ [lɪʔlik̥] *edge*
- [k] voiceless unaspirated released velar stop. Occurs elsewhere: /kakaʔ/ [kákaʔ] *older sibling*, /pekak/ [pékak] *frog*

The released allophones of /p,t,k/ described above occur in all environments except immediately before another consonant, in which environment unreleased allophones occur. The unreleased variants also occur before a pause /#/ in free variation with released variants: /liʔlik#/ [lɪʔlik̥] ~ [lɪʔlik̚] *edge*, /kaʔampitku/ [kaʔampit̚ku] *my friend*, /liʔlip#/ [lɪʔlip] ~ [lɪʔlip̚] *swim*

Slightly to moderately aspirated allophones of /p,t,k/ commonly occur in free variation with unaspirated allophones: /kakipit/ [kak̥ipit̚] ~ [k^hak̥^hip̥^hit̚^h] *very difficult*

Released allophones of voiceless stops are usually held momentarily before release preceding a pause: /rəpət#/ [řé̃pət̚] ~ [řé̃pət̚⁻] *fast*, /wuʔuk#/ [búʔuk] ~ [búʔuk⁻] *hair*

Some speakers substitute an interdental stop [t̪] for dental [t̚]: /pitu/ [pit̪u] *seven*

- /ʔ/ [ʔ] voiceless glottal stop: /saʔut/ [sáʔut̚] *banana*, /poʔpoʔ/ [p̚ʔp̚ʔ] *coconut*

Voiced stops

- /b/ [b] voiced bilabial stop: /bale/ [bá̃le] *house*, /rəbət/ [řé̃bət̚] *tight*
- /d/ [d] voiced alveolar stop: /dua/ [dú̃a] *two*, /ədo/ [əd̚] *day*
- /g/ [g] voiced velar stop: /gio/ [gí̃] *face*, /logo/ [l̚g̚] *sweat*

Nasals

- /m/ [m] voiced bilabial nasal: /membeʔ/ [mé̃mbeʔ] *goat*, /suminsim/ [sumí̃nsim] *bird sp.*
- /n/ [n̥] voiced dental stop. Occurs before /t/: /ntali/ [n̥t̚áli] *rope*, /rintək/ [ří̃n̥t̚ək] *fine*
- [ñ] voiced centro-palatal nasal without complete closure.¹ Occurs between a preceding vowel (within the word or across a word boundary without intervening pause) and a following /s/: /suminsim/ [sumí̃nsim] *bird sp.* /witu nsəkola/ [ví̃tũnsək̚la] *in school*. In slow careful speech [ñ] is replaced by [n]

- [n] voiced alveolar nasal. Occurs elsewhere: /nəndo/ [nán̥d̥ɔ̃] *day*, /naran/ [nán̥ʃan] *stairs*
- /ŋ/ [ŋ] voiced velar nasal: /ŋaran/ [ŋán̥ʃan] *name*, /waʔaŋ/ [wán̥ʔaŋ] *tooth*

Fricatives

/w/ The following statement indicates the most common distribution for each allophone of /w/. However, a considerable degree of fluctuation occurs and a number of allophones occur in most positions, in addition to the one listed below for that position. The allophones listed are only points of reference; in fact there is a continuum of variants between [w] and [v].

- [w] voiced high back rounded non-syllabic vocoid. Occurs word-finally after /o/. No other allophone occurs in this position: /tow/ [t̥ow] *person*
- [w̥] voiced high back rounded non-syllabic vocoid with accompanying slight bilabial friction. Occurs before /o/: /wo/ [w̥o] *and*, /towo/ [t̥ów̥o] *lie*
- [w̥̄] voiced high back unrounded non-syllabic vocoid with or without accompanying slight bilabial friction. Occurs before /a/: /waŋkoʔ/ [w̥án̥k̥ɔ̃ʔ] *big*, /lawas/ [lán̥was] *hand*
- [b] voiced bilabial fricative. Occurs before /e/, /ə/ and /u/ and word-finally after vowels other than /o/: /weʔwek/ [b̥éʔb̥ek̥] *duck*, /wutər/ [b̥úʔt̥əʃ] *heavy*, /taruwun/ [t̥aʃúʔbun] *mildew*, /tətəlew/ [t̥ət̥éʔl̥ɛb̥] *wing*
- [v] voiced labio-dental fricative. Occurs before /i/: /witu/ [vít̥u] *at*, /kawii/ [kaví:] *left*
- /ʃ/ [ʃ̣] voiced front velar or palatal fricative. Occurs before front vowels medially and after front vowels word-finally: /paəʃiʔ/ [pá:ʃ̣iʔ] *knife*, /tətəʃer/ [t̥ət̥éʃ̣ɛʃ̣] *pole*, /siliʃ/ [síl̥iʃ̣] *allude*
- [ʃ̣] voiced back velar or uvular fricative. Occurs elsewhere: /ʃ̣orəm/ [ʃ̣óʃ̣əm] *inside*, /paʃər/ [páʃ̣əʃ̣] *fence*

Before a pause a very weakly articulated, almost inaudible variant occurs in free variation with stronger allophones: /raʔraʃ̣#/ [ʃ̣án̥ʃ̣aʃ̣] ~ [ʃ̣án̥ʃ̣aʃ̣̣] *fall*, /siliʃ̣#/ [síl̥iʃ̣] ~ [síl̥iʃ̣̣] *allude*

Vibrant

- /r/ [r̥] voiced alveolar trill. Occurs in all positions in the word: /rua/ [r̥úa] *two*, /karua/ [kaʃ̣úa] *second*, /kamar/ [kámaʃ̣] *room*

- [\tilde{r}] voiceless alveolar trill. Occurs before a pause in free variation with [ř]: /kamar#/ [kámař] ~ [káma \tilde{r}] *room*
- [ř] voiced alveolar flap. Occurs initially and medially in free variation with [ř]: /#rua/ [řúa] ~ [řúa] *two*, /karua/ [kařúa] ~ [kařúa] *second*
- [d r] voiced alveolar vibrant (flapped or trilled) with voiced plosive onset. Occurs following /n/ across a word boundary without intervening pause: /wəwean rua/ [bəb d éan d rúa] *there are two*

Sibilant

- /s/ [s] voiceless alveolar grooved fricative: /slow/ [słow] *nine*, /asu/ [ásu] *dog*, /ipis/ [ípis] *thin*

Lateral

- /l/ [l] voiced alveolar lateral: /lalan/ [lálan] *road*, /wuʔul/ [búʔul] *rotten*

Semi-vowel

- /y/ [y] voiced high front unrounded non-syllabic vocoid: /yaʔl/ [yáʔi] *this*, /waya/ [wáya] *all*, /lodey/ [lɔ́dey] *boat*

Vowels

- /i/ [i] high front unrounded vocoid: /ipis/ [ípis] *thin*, /api/ [ápi] *fire*
- /e/ [e] higher mid front unrounded vocoid. Occurs before /i/ and /y/: /lodey/ [lɔ́dey] *boat*, /reidəm/ [řéidəm] *dark*
- [ɛ] lower mid front unrounded vocoid. Occurs elsewhere: /maeker/ [máεkεř] *is coughing*, /edo/ [édɔ] *sun*, /mawee/ [mabé:] *is giving*
- /ə/ [ə] mid central unrounded vocoid: /əris/ [əřís] *sand*, /rəpət/ [řəpət] *fast*
- [ə>] backed mid central unrounded vocoid. Occurs frequently in the syllable preceding the stressed syllable when preceded and followed by bilabial consonants and sometimes in other environments when preceding a bilabial consonant, in variation with [ə]: /pəpalən/ [pəpálən] *door*, /wəwene/ [bə>béne] *woman*, /məwewew/ [mə>bə>bébe] *intends to hit*, /əmpuŋ/ [ə>mpuŋ] *Lord*, /kələw/ [kálə>b] *lid*

- /a/ [ʰa] higher fronted low central unrounded vocoid. Occurs before /i/ with or without an intervening glottal stop: /naiwaŋker/ [nʰaiwáŋkɛɾ] *has been sold*, /yaʰi/ [yʰáʰi] *this*
- [aː] higher backed low central unrounded vocoid. Occurs before /u/ with or without intervening /ʰ/: /taraukaʰ/ [tʰaɾáʰukaʰ] *skull*, /waʰu/ [wáʰu] *tortoise*
- [a] low central unrounded vocoid. Occurs elsewhere: /asu/ [ásu] *dog*, /rua/ [řúa] *two*, /tian/ [tʰían] *belly*
- /u/ [u] high back rounded vocoid: /upus/ [úpus] *love*, /asu/ [ásu] *dog*
- /o/ [o] higher mid back rounded vocoid. Occurs before /u/ and /w/: /lour/ [lóuɾ] *lake*, /tow/ [tʰow] *person*
- [ɔ] lower mid back rounded vocoid. Occurs before /i/, /y/ and /r/: /loit/ [lóit] *money*, /loyot/ [lóyot] *owl*, /gorəm/ [gʰóɾəm] *inside*
- [ɔ̃] higher low back rounded vocoid. Occurs elsewhere in variation with [ɔ]: /oki/ [ók̃iʰ] ~ [ók̃iʰ] *little*, /oat/ [óat̃] ~ [óat̃] *day*, /edo/ [éd̃ɔ̃] ~ [éd̃ɔ̃] *sun*

Preceding a pause vowels have a voiceless off-glide which is usually slight after non-high vowels but often long and forceful after high vowels: /api#/ [ápiI] *fire*, /asu#/ [ásuU] *dog*, /mate#/ [máɾɛɛ] *dead*.

Following a pause vowels are preceded by a non-phonemic glottal stop: /#oat/ [ʰóat̃] *day*, /#enteʰ/ [ʰáŋt̃ɛʰ] *strong*, /#api/ [ʰápi] *fire*.

Vowels have nasalised variants following a nasal consonant. Nasality is usually very slight or absent but tends to be stronger in the following environment: N__ (? (V))#, i.e., after a nasal consonant and before a pause with or without an intervening glottal stop plus optional vowel. In this environment the vowel following glottal stop may also be heavily nasalised: /suŋe/ [sún̄ɛ] *horn*, /lumooʰ/ [lum̄óʰ:] *will drink*, /naʰe/ [náʰɛ] *foot*.

2.2.2. Phonemic Contrasts

Phonemic contrast between phonetically similar segments is established by their occurrence in the same environment as shown in the following pairs:

- /p/ - /b/ /rəpət/ *fast* and /rəbət/ *tight*
 /t/ - /d/ /tutuʰ/ *act deliberately* and /tuduʰ/ *point*

/k/ - /g/	/rokoʔ/ greedy and /rogoʔ/ worn out
/m/ - /n/	/tuama/ man and /tuana/ thus
/n/ - /ŋ/	/naran/ stairs and /ŋaran/ name
/t/ - /r/	/tutuʔ/ act deliberately and /turuʔ/ teach
/d/ - /r/	/todo/ push and /toro/ approach
/d/ - /l/	/sodo/ ladle and /solo/ lamp
/r/ - /l/	/serok/ interrupt and /selok/ pour
/r/ - /g/	/rəʔrəg/ often and /gəʔgər/ cold
/b/ - /w/	/tibo/ sell and /siwo/ make; /ləban/ leech and /ləwaŋ/ valley
/g/ - /g/	/logas/ bald and /pogər/ shallow; /rəgak/ emerge and /təgaʔ/ guard
/ʔ/ - /k/	/taʔər/ almost and /takər/ until
/ʔ/ - Ø	/reʔo/ thirsty and /reo/ order; /lakaʔ/ rooster and /laka/ flushed
/i/ - /e/	/nisia/ he and /nisea/ they
/e/ - /a/	/sake/ ride and /saka/ cock fight
/a/ - /o/	/rəgak/ emerge and /rəgok/ snore
/o/ - /u/	/solo/ lamp and /sulu/ claw
/ə/ - /i/	/tuʔmər/ catch and /tuʔmir/ heel
/ə/ - /e/	/matəwəl/ sharpen and /matewəl/ fly
/ə/ - /a/	/gəʔgər/ cold and /gaʔgər/ spring
/ə/ - /o/	/pərəŋ/ blind and /poroŋ/ head covering
/ə/ - /u/	/rubər/ sit and /rəbur/ fat

2.3. SYLLABLE STRUCTURE AND PHONEME DISTRIBUTION

2.3.1. Syllable Types

A phonemic syllable consists of a vowel (V) as nucleus and may also contain one or two consonants (C) before V and one consonant after V. The six syllable types are illustrated below. Phonemic syllable boundaries are indicated by a point and the syllable being illustrated is underlined.

V	/i.pus/ tail, /ma.ɔ.as/ is washing, /ru.ə/ two
VC	/ən.teʔ/ strong, /kaʔ.am.pit/ friend, /ka.an/ rice
CV	/wa.le.ku/ my house
CVC	/tim.paʔ/ palm wine, /lə.loŋ.ko.tan/ ladder
CCV	/nta.li/ rope, /mba.le/ house
CCVC	/nsaʔ.ut/ banana, /mbaŋ.koʔ/ big

As shown in the examples above, a consonant cluster within the one syllable occurs only word initially, where it consists of a nasal plus homorganic obstruent, the two consonants belonging to separate morphemes (see 8.0j).

2.3.2. Phoneme Classes

2.3.2.0. This section describes the classes of phonemes in terms of their distribution within the syllable and word.

2.3.2.1. Consonant Classes

Five distribution classes of consonants occur. The classes overlap in membership since most consonants occur in a number of environments. For each class the environment is stated in words and in formula, restrictions are noted and a list of member phonemes is given together with examples. In formal statements a word boundary is indicated (+) and a syllable break is indicated (·).

(a) Class one

Consonant class 1 (C^1) precedes the syllable nucleus and occurs either word-initially or following a vowel or a consonant of class 4 or class 5.

$$\text{environment: } \left\{ \begin{array}{c} + \\ v \\ C^4 \\ C^5 \end{array} \right\} \cdot \text{---} v$$

members: All consonants except /ʔ/

restrictions: The voiced stops /b,d,g/ occur word-initially only under certain grammatical conditions, replacing /w,r,ŋ/ respectively (see 8.0j). Velar stop /g/ has not been observed to follow C^5 (see (e) below). Restrictions on C^4C^1 clusters are described in (d) below.

The following examples illustrate C^1 word-initially and intervocalically. Occurrence following another consonant is exemplified in (d) and (e) below.

initially

/paʔa/ *thigh*
 /bae/ *house*
 /tɪmpaʔ/ *palm wine*
 /dano/ *water*
 /kalo/ *friend*
 /qio/ *face*

intervocalically

/rəpət/ *fast*
 /rəbət/ *tight*
 /atas/ *above*
 /ədo/ *day*
 /lakər/ *many*
 /logo/ *sweat*

/meaʔ/ red	/lima/ five
/naʔe/ foot	/lana/ oil
/ŋaran/ name	/taliŋa/ ear
/wia/ here	/wawaʔ/ below
/rəraa/ girl	/karia/ female friend
/sapa/ what	/asu/ dog
/ləntər/ thunder	/lalan/ road
/yaʔi/ this	/payan̄ka/ fish sp.
/gula/ sugar	/sigaʔ/ clever

(b) Class two

Consonant class 2 (C^2) precedes a class 3 consonant. Word-initially C^2 begins the syllable, medially it follows the syllable nucleus.

$$\text{environment: } \left[\begin{array}{c} + \\ v \end{array} \right] \text{ — } \left[\begin{array}{c} C^3v \\ .C^3 \end{array} \right]$$

members: The nasals /m,n,ŋ/

restrictions: C^2C^3 clusters are homorganic sequences. These are further discussed and exemplified under (c) below.

(c) Class three

Consonant class 3 (C^3) precedes the syllable nucleus and follows a C^2 consonant with or without an intervening syllable break.

$$\text{environment: } C^2(.) \text{ ___ } v$$

members: The obstruents /p,b,t,d,s,k,g/

restrictions: A C^3 consonant must follow a C^2 consonant having the same place of articulation; C^2C^3 clusters thus comprise seven homorganic nasal-obstruent sequences. A C^2C^3 cluster differs from a C^4C^1 cluster (see (d) below) in that it can occur word-initially and morpheme-medially and cannot be separated by an epenthetic schwa when occurring across a morpheme boundary (see 2.4.1.). The cluster /ŋg/ does not occur medially (except in names - see 2.5.1.). Word-medially the clusters /mb/ and /nd/ fluctuate with /b/ and /d/ respectively (see 2.5.1.).

The following examples illustrate C^2C^3 clusters word-initially and morpheme-medially:

initially	medially
/mpaʔa/ thigh	/timpaʔ/ palm wine
/mbale/ house	/membeʔ/ goat
/ntali/ rope	/ənteʔ/ strong

/nd <u>u</u> a/ two	/ə <u>n</u> do/ day
/n <u>s</u> u <u>m</u> a/ mouth	/l <u>e</u> n <u>s</u> o/ handkerchief
/ŋ <u>k</u> u <u>r</u> eʔ/ cooking pot	/t <u>i</u> ŋ <u>k</u> uʔ <u>k</u> uʔ/ chin
/ŋ <u>g</u> i <u>o</u> / face	

(d) Class four

A class 4 consonant (C⁴) occurs morpheme-finally and is followed by either word juncture or a C¹ consonant.

environment: $v _ \cdot \left\{ \begin{array}{c} + \\ C^1 \end{array} \right\}$

members: All consonants except /b, d, g, ʔ/

restrictions: All consonants except voiced stops occur word-finally but /ʔ/ is assigned to a separate class (see (e) below).

C⁴C¹ clusters can only occur between a stem morpheme and a following bound morpheme and are restricted in number by the limited number of consonants which begin a suffix or postclitic and the fact that some potential clusters do not occur because of the loss of one of the consonants (see 8.0c and d). Most C⁴C¹ clusters are also usually avoided by the insertion of /ə/ between the two consonants (see 2.4.1.). A C⁴C¹ cluster of identical consonants does not occur, being avoided by the loss of one of the consonants (in the case of /n/ - see 8.0d) or the occurrence of epenthetic schwa.

In the following examples C⁴ is illustrated word-finally and in some C⁴C¹ clusters.

word-finally

/atə <u>p</u> / roof	/tətə <u>l</u> e <u>w</u> / wing
/pəʔ <u>o</u> t/ belly	/rəʔ <u>r</u> ə <u>g</u> / often
/w <u>u</u> ʔ <u>u</u> k/ hair	/w <u>i</u> ir/ uncooked rice
/ən <u>ə</u> m/ six	/kək <u>o</u> s/ wet
/tə <u>r</u> ek <u>ə</u> n/ now	/kət <u>i</u> l/ tight
/tə <u>b</u> ule <u>l</u> ə <u>n</u> / round	/t <u>i</u> e <u>y</u> / pig

C⁴C¹ clusters

/rimədə <u>y</u> peʔ/ is still standing	/nam <u>u</u> tn <u>a</u> / root
/rimədə <u>y</u> mow/ is already standing	/w <u>u</u> ʔ <u>u</u> kt <u>a</u> / our hair
/kaʔ <u>a</u> mpit <u>k</u> u/ my friend	/k <u>u</u> miʔ <u>i</u> tl <u>a</u> / will follow
/ipət <u>a</u> n <u>ə</u> mt <u>a</u> / is planted by us	/law <u>a</u> s <u>n</u> a/ his hand

(e) Class five

This class (C⁵) follows the syllable nucleus and occurs word-finally

or preceding a vowel or C¹ consonant.

environment: $v \text{ ____ } \left\{ \begin{array}{c} + \\ v \\ C^1 \end{array} \right\}$

member: The only member is glottal stop /ʔ/

This class always occurs in the same environment, in terms of adjacent vowels and consonants, as other classes but is treated as distinct for the following reasons: (i) Glottal stop does not occur morpheme-initially. Because of this it is interpreted as being syllable-final when occurring intervocally. All other consonants intervocally are syllable-initial (all other consonants belong to C¹ and can occur morpheme-initially but not all can occur morpheme-finally). (ii) /ʔ/ can precede all other consonants in a C⁵C¹ cluster (except that */ʔg/ has not been recorded) morpheme-medially. The only other clusters occurring morpheme-medially are homorganic C²C³ sequences. (iii) Whereas a C⁴C¹ cluster is often avoided by the occurrence of an epenthetic schwa, a C⁵C¹ cluster is not (although it is sometimes avoided in a somewhat different way - see 2.4.3.).

In the following examples C⁵ is illustrated medially and finally and all C⁵C¹ clusters are illustrated morpheme-medially.

intervocally

/paʔar/ *like*

/raʔi/ *not*

finally

/okiʔ/ *little*

/lakaʔ/ *rooster*

C⁵C¹ clusters

/piʔpiʔ/ *wet*

/saʔbet/ *lasso*

/taʔtaʔ/ *house lizard*

/tuʔdək/ *prod*

/koʔkoʔ/ *hen*

/riʔris/ *hate*

/reʔsok/ *slide*

/tuʔmər/ *catch*

/nəniʔnis/ *tooth brush*

/wəʔŋəl/ *stupid*

/kiʔwəl/ *squeeze*

/gəʔgər/ *cold*

/liʔlik/ *edge*

/paʔyaŋ/ *work*

2.3.2.2. Vowel Classes

There are two distribution classes of vowels. These are described in the same way as indicated for consonants in section 2.3.2.1.

(a) Class one

Vowel class 1 (v¹) precedes a consonant and either begins a word or follows a consonant.

environment: $\left\{ \begin{array}{c} + \\ C \end{array} \right\} \text{---} C$

members: All vowels

v^1 vowels are illustrated word-initially and medially:

word-initially

ipus/ tail
edo/ sun
əpat/ four
ate/ liver
utu?/ lad
oras/ season

word-medially

wisa/ where
 reŋa?/ snail
 kəwit/ whisper
 paluka/ shoulder
 tunu/ burn
 sosot/ steam

(b) Class two

Vowel class 2 (v^2) occurs either word-finally or preceding another v^2 or else it follows a v^2 and precedes a consonant.

environment: $\left[\begin{array}{c} \\ v^2 \end{array} \right] \text{---} \left[\begin{array}{c} \{ + \\ v^2 \} \\ C \end{array} \right]$

members: All vowels except /ə/

Examples of v^2 word-finally:

tali/ rope
ure/ long
lima/ five

asu/ dog
edo/ sun

It follows from the environment statement above that any vowel, except /ə/, can occur in sequence with any other vowel and that vowel sequences of any length can occur. However, there are restrictions on the co-occurrence of vowels. The following examples illustrate the two-vowel sequences which have been observed to occur within morphemes:

tiis/ drip
tiey/ pig
tian/ belly
niu/ winnow
gio/ face
reidəm/ dark
lee?/ neck
mea?/ red

tarauka?/ skull
sao/ dew
rui/ bone
lue?/ tears
rua/ two
kuun/ long grass sp.
kuok/ call
ləloi?/ snake

/meoŋ/	cat	/loloati/	worm
/raiʔ/	not	/lour/	lake
/tae/	just	/kooʔ/	drink
/kaan/	rice		

The sequences /eu, oe/ have only been recorded in reduplicated stems, occurring across the morpheme boundary:

/maureureʔ/	is continually chasing away
/maedoeodo/	is continually fetching

No sequences of more than two vowels occur within morphemes. Sequences of three or more vowels occur only at morpheme boundaries and are limited by the restricted number of vowels occurring finally in a prefix or initially in a suffix. The following examples illustrate three-vowel clusters:

/kaoatan/	world
/makioas/	request to wash
/pəŋaeən/	place where (someone) is going
/maae/	is going

Only two sequences of four vowels and one sequence of five vowels have been recorded:

/niaean/	place where (someone) has gone
/minaeaeemi/	has continually gone
/maoaoas/	is continually washing

2.4. MORPHOPHONEMICS

2.4.0. In certain environments there sometimes occurs the loss, addition or replacement of a segment. This section describes such phenomena which occur under purely phonological conditions. Other changes are described in section 8.0.

2.4.1. Schwa Insertion

In certain phonological environments a schwa occurs which has no grammatical status but which is interpreted as phonemic.

(a) As stated in section 2.3.2.1d, a C¹ consonant follows a C⁴ consonant at a morpheme boundary within the word. This cluster is usually avoided by the insertion of /ə/ between the two consonants (the C⁴C¹ cluster then becomes a sequence of C¹əC¹).

• If the first consonant of the C⁴C¹ cluster is /y/ or /w/, schwa does not occur except that it has been recorded, though only rarely,

in a few words following /y/:

/tow + -na/ → /towna/ *his body*
 /lodey + -ku/ → /lodeyku/ or (rarely) /lodeyaku/ *my boat*

Where two identical consonants would otherwise be contiguous at a morpheme boundary /ə/ obligatorily occurs:

/wuʔuk + -ku/ → /wuʔukəku/ *my hair*

Elsewhere /ə/ is rarely omitted:

/kaʔampit + -ku/ → /kaʔampitəku/ or (rarely) /kaʔampitku/
my friend
 /lawas + -na/ → /lawasəna/ or (rarely) /lawasna/ *his hand*

Epenthetic schwa is given phonemic status since its interpretation as non-phonemic would result in phonetically identical sequences being phonemically different:

(i) [kəʔɔ̃r + -ən + -na] → [kəʔɔ̃rəna]
 (ii) [i- + kəʔɔ̃r + -na] → [ikəʔɔ̃rəna]

The phonetic identity of epenthetic schwa with functional schwa in this environment demands similar interpretation:

(i) /kətorəna/ *will be cut by him*
 (ii) /ikətorəna/ *will be used by him to cut with*

It should be noted that this schwa only occurs with a C⁴C¹ consonant cluster, never with a C²C³ or C⁵C¹ cluster.

(b) Schwa may precede a single word-initial consonant if the preceding word ends in a consonant and the two words are not separated by a pause.

Schwa is far less common in this environment than in that described in (a) above. The likelihood of its occurrence depends on the two consonants involved. Only a rough statement is given here.

Schwa has not been observed if the sequence (separated by word juncture) is of a nasal followed by an obstruent (either homorganic or heterorganic):

/taʔun tumodoŋ/ *next year*
 /waʔaŋ putiʔ/ *white teeth*

or of two identical consonants (see also 2.1.3e):

/ŋaran ni tuama/ *the man's name*

It most frequently occurs when the sequence involves /r/ and some other alveo-dental consonant (but not /n/ - see /r/ in 2.2.1.):

/loit + rintək/ → /loit rintək/ ~ /loit ərintək/ *small change*
 /susur + nədo/ → /susur nədo/ ~ /susur ənədo/ *every day*

When a word begins with a nasal-obstruent cluster schwa always occurs if the preceding word ends with a consonant and there is no intervening pause:

/naran + mbale/ → /naran əmbale/ *stairs of the house*
 /timiboy + ntali/ → /timiboy əntali/ *is holding the rope*
 /ɲaran + nsəkola/ → /ɲaran ənsəkola/ *name of the school*

and occurs optionally following a pause:

/#mbale/ ~ /#əmbale/ *house*
 /#nsuməsulana/ ~ /#ənsuməsulana/ *thorn*

Prothetic schwa is treated as phonemic because it is phonetically similar to a functional schwa:

[ənt_ət_əʔ + -mow] → [ənt_ət_əʔmow] /ənt_əʔmow/ *already strong*
 [n- + t_ənaʔ] → [ənt_ət_ənaʔ] /ənt_ənaʔ/ *ground*

2.4.2. Schwa Assimilation

Schwa assimilates to an immediately preceding vowel within the word. The assimilation also occurs through an intervening glottal stop:

/ma- + ənaʔ/ → /maanaʔ/ *lives*
 /maʔ- + ənaʔ/ → /maʔanaʔ/ *intends to live*
 /lutuʔ + -ən/ → /lutuʔun/ *will be cooked*

2.4.3. Glottal Stop And Following Vowel

When glottal stop precedes a consonant within the word a vowel may be inserted between them. On the other hand, a vowel following /ʔ/ may be deleted, resulting in a C⁵C¹ cluster.

(a) When /ʔ/ is followed by a C¹ consonant (within a morpheme or at a morpheme boundary) a vowel having the same quality as the vowel preceding /ʔ/ may occur between the two consonants:

/koʔkoʔ/ ~ /koʔokoʔ/ *hen*
 /weʔwek/ ~ /weʔewek/ *duck*
 /kuliʔ + -na/ → /kuliʔna/ ~ /kuliʔina/ *his skin*

This vowel is treated as phonemic because its interpretation as non-phonemic would result in phonetically identical sequences being phonemically different:

(i) [luʔuʔ + -ən + -na] → [luʔúʔuna]

(ii) [kapaluʔuʔ + -na] → [kapaluʔúʔuna] (as well as
[kapaluʔúʔna])

This phonetic identity demands the same interpretation:

(i) /lutuʔuna/ *will be cooked by her*

(ii) /kapalutuʔuna/ (as well as /kapalutuʔna/) *her manner of cooking*

Also, the post-glottal vowel may occur in careful pronunciation as a deliberately articulated sound.²

An exception to the insertion of a vowel as described above is that if the vowel preceding glottal stop is schwa then no insertion occurs:

/wəʔŋəl/ *stupid*

/gəʔgər/ *cold*

The post-glottal vowel described above has the same quality and quantity as the vowel preceding glottal stop. However, glottal stop and a following consonant may instead be separated by a short, weak vocoid of the same quality as the vowel preceding glottal stop though usually somewhat centered:

[kʰʔ^okʰʔ] as well as [kʰʔkʰʔ]

[kʰulʰⁱna] as well as [kʰulʰna]

This vocoid is treated as a non-phonemic transitional sound between /ʔ/ and the following consonant; a manifestation of an open release of /ʔ/. The phonemic identification of [kʰʔ^okʰʔ], for instance, with /koʔkoʔ/ and not with /koʔokoʔ/ appears to be necessary since the vocoid in question may be so short and weak as to be almost undetectable. However, it is sometimes somewhat more forceful so that it is not always easy to decide if the sound should be regarded as the phonemic sound, as in [kʰʔ^okʰʔ] (→ /koʔokoʔ/) or as the non-phonemic transitional vocoid as in [kʰʔ^okʰʔ] (→ /koʔkoʔ/). In other words the vocoid between glottal stop and a following consonant ranges from one having full vowel quality to one of extreme tenuousness and an arbitrary decision is made as to the degree sufficient to warrant phonemic status.

(b) When a vowel occurs at a morpheme boundary and is preceded by glottal stop it may be deleted in normal or fast speech if the vowel preceding /ʔ/ is of the same quality as it:

/woʔo + -mow/ → /woʔomow/ ~ /woʔmow/ *perhaps*

/nuʔ + umanən/ → /nuʔumanən/ ~ /nuʔmanən/ *story*

/lutuʔ + -ən + -na/ → /lutuʔuna/ ~ /lutuʔna/ *will be cooked
by her*

The vowel is never lost if the resultant sequence would be other than a C⁵C¹ cluster:

/kaʔampit/ *friend*

/kumiʔitla/ *will follow*

Deletion can also occur within the morpheme (although not in careful speech) provided the loss does not result in a word-final consonant cluster:

/pakatuʔutuʔus + -an/ → /pakatuʔutuʔusan/ ~ /pakatuʔtuʔsan/
is observed carefully (from /tuʔus/ observe)

2.5. DIACHRONIC CHANGE

2.5.0. The first four sections of this chapter outline the phonology of the variety of Tondano used by the principal informants for this study, all of whom were more than fifty five years of age. A number of phonological changes are at present in progress in the language, of which the most important are discussed in this section. These changes appear to have reached completion in the speech of younger Tondanese so that their variety of speech differs in a number of ways from that described in the above four sections.

2.5.1. Loss Of Nasals Before Voiced Stops

As is shown by several word lists compiled in the nineteenth century (e.g. Niemann, 1869-70) and by comparison with other dialects, until recently in Tondano voiced stops occurred word-medially only following homorganic nasals. A process is now in operation whereby nasal consonants are being lost from this environment, resulting in intervocalic voiced stops, which did not occur before the sound change began.

Loss of /ŋ/ before /g/ word-medially is complete, having occurred, apparently, before the birth of any Tondanese still living at the time of this study.³ Niemann's list includes words such as /loŋgo/ *sweat* and /səŋgor/ *steam*. In present-day Tondano the cluster /ŋg/ does not occur word-medially and the only forms for these words are /logo/ and /səgor/.

The clusters /mb/ and /nd/ still occur medially in fluctuation with /b/ and /d/ respectively. Loss of /m/ before /b/ appears to be complete in casual speech, the cluster being confined to careful or formal speech. Thus /tambəlaŋ/ and /tabəlaŋ/ *bamboo* both occur, although the former only in restricted speech styles. Loss of /n/ has not progressed so far and the cluster /nd/ still persists in informal speech although

less frequently than /d/. Thus: /əndo/ ~ /ədo/ *day*.⁴

In terms of consonant classes the change involves the replacement of a C²C³ cluster by a C¹ consonant.

The loss of the nasal from this environment appears to be complete in the speech of Tondanese of about forty years of age and under. Thus, in their speech, only forms such as /tabəlan/ *bamboo* and /ədo/ *day* occur.

However, the clusters persist in certain words. The cluster /mb/ is retained in a few animal names, e.g. /membeʔ/ *goat*, /mombo/ *dove*. All three clusters remain in the names of people and places, e.g. /runturambi/ *person's name*, /tandəŋan/ *village name*, /katingolan/ *village name*. The clusters also are retained in borrowed words, e.g., /gambar/ *picture*, /walanda/ *Dutch*, /dumungu/ *week*.⁵

2.5.2. Merger Of /a/ With Mid Vowels

As described in section 2.2.1., phoneme /a/ has allophone [ʌ] before /(?i)/ and allophone [aː] before /(?u)/. These allophones are in the process of merging with mid vowels; [ʌ] with /e/ and [aː] with /o/. In the speech of the informants for this study the phonemes fluctuate in these environments in fast speech. Thus: /maideʔ/[mʌáideʔ] ~ /meideʔ/[méideʔ] *afraid*, /maupiʔ/[máupiʔ] ~ /moupiʔ/[móupiʔ] *angry*. In the speech of people under about forty years of age the merger is complete and only the sequences /e(?i)/ and /o(?u)/ occur, /a/ being lost from these environments.

2.5.3. Loss Of Epenthetic Schwa

In the speech of younger Tondanese epenthetic schwa (see 2.4.1.) does not occur. Thus, in their speech, C⁴C¹ consonant clusters at morpheme boundaries are never lost through schwa insertion, only forms such as /kaʔampitku/ *my friend* and /lawasna/ *his hand* occurring.

Loss of the schwa insertion rule also results in geminate clusters within the word as well as at the word boundary:

/wuʔukku/ [búʔukːu] *my hair*
 /kaʔampitta/ [kaʔampítːa] *our friend*

However, prothetic schwa continues to remain optionally preceding a word-initial nasal-obstruent cluster:

/#ənsuʔəsulana/ ~ /#nsuʔəsulana/ *thorn*

2.6. LOAN WORDS

The phonology outlined above describes the "native core" of Tondano and does not take account of the many loan words in the language. Most borrowings are from Malay but many derive from other languages (usually European), although these too have usually entered the language via Malay.

Tondanese are bilingual, speaking both their own language and Manado (Minahasan) Malay and recent borrowings from that source undergo no phonological change (although words from other languages may have previously been modified when borrowed into Malay). Most of these words conform to the Tondano phonemic system but many do not. Among phonological features introduced by recent borrowing are the following:

- (a) Consonant clusters within the morpheme: /kaptɛŋ/ *captain*, /kopra/ *copra*, /listrik/ *electricity*.
- (b) Word-initial /b,d,g/ which are not in grammatical alternation with /w,r,ŋ/ (see 8.0j): /baca/ *read*, /dumingu/ *week*, /gareja/ *church*.
- (c) New phonemes. The most prominent of these are the three alveo-palatal phonemes of Manado Malay not found in native Tondano, the affricates /c/ and /j/ and the nasal /ñ/: /ciŋke/ *clove*, /meja/ *table*, /puña/ *possession*.

Furthermore, most Tondanese have Dutch, and sometimes English, Christian names. These have usually undergone no phonological change and have introduced a number of structural innovations and new sounds into the language: /hendrik/ *Hendrik*, /frans/ *Frans*, /maks/ *Max*, /jak/ *Jack*, /miykə/ *Mieke*.

CHAPTER THREE

3. BASIC CLAUSES

3.0. A Basic clause is defined as one which cannot be derived by transformation from another clause type. Derived clauses - those which are best described in terms of a transformation from Basic clauses - are described in section 6.1.

All Basic clauses are capable of expounding the Base of a Simple sentence (see 7.2.1.). Any clause capable of this is an Independent clause. Derived clauses are either Independent or Dependent, i.e., not able to expound the Base of a Simple sentence.

There are two Basic clause types which differ considerably in internal structure from other Basic clauses. Inclusion of these here would complicate the description of clause exponents and their internal structure in the following two chapters. The description of these clause types is therefore left until Chapter Six. All statements below on the structure of Basic clauses refer only to the clauses described in this chapter.

Clause types in Tondano are outlined in Table II.

A Basic clause consists minimally of two tagmemes: Topic and Predicate. Other tagmemes may occur, either optionally or obligatorily, depending on the particular clause type. The Topic is defined as that tagmeme which is marked by agreement within the Predicate by a topic marker (see 5.8.1.).

This chapter is concerned only with the nuclear tagmemes of Basic clauses. A nuclear tagmeme is defined as one which is obligatory to a construction or which, in Verbal clauses, is associated with a case relationship. All other clause level tagmemes are peripheral. These are described in section 4.2.

TABLE II: TONDANO CLAUSE TYPES

		INDEPENDENT					DEPENDENT			
BASIC	DERIVED	CONJOINED	COMPOUND	IMPERATIVE	INTERROGATIVE PREDICATE	INTERROGATIVE TAGMEME	SEQUENTIAL	PRO-TOPIC	QUALIFYING	VERBAL COMPLEMENT
		VERBAL		X	X			X	X	X
	ACTIVE			X						
	CAUSATIVE			X						
	RECIPROCAL			X						
	NON-VOLITIONAL									
TOPIC-COMMENT					X			X		
	DESCRIPTIVE			X						
	NUMERAL						X			
	SIMILITUDE									
	REFERENTIAL						X			
	NOUN									
EXISTENTIAL								X		
IDENTIFICATIONAL										

An X indicates the derivational transformations undergone by each Basic clause type. Where an X occurs in the row for a major Basic type it indicates that all its subtypes undergo the transformation.

A primary division in Basic clause types is made between Verbal and Non-verbal clauses. A Verbal clause is one whose Predicate Centre (see 5.8.3.) is expounded by a Verb phrase. Verbal clauses are described in section 3.1. Of the Non-verbal clauses only one set, the Topic-Comment clauses, are described in this chapter, in section 3.2. The others are dealt with in Chapter Six.

3.1. VERBAL CLAUSES

3.1.0. Introduction

3.1.0.1. *Case Relationships, Case Markers And Topicalisation*

Verbal clauses are described in terms of case relationships and the ways in which these relationships are marked in surface structure. A discussion of the notion of case and of the individual cases is given in sections 3.1.0.8. and 3.1.0.9. It is just noted here that each clause level nominal is dominated by a case relationship, this role being identified by certain surface phenomena which are characteristic of the particular clause type.

Underlying case relationships are signalled in surface structure by devices called case markers. There are two categories of case markers in Tondano: relators and voice affixes.

A Verbal clause can be regarded as having an underlying structure consisting of a verb followed by a string of nominals, each of which holds a case relationship to the verb. The case relationship of each nominal is signalled by a case relator. A relator can be a free preposition or a form in portmanteau relationship with some component of the nominal whose case it marks.

In this chapter the term relator refers only to the clause level case marking relators. Other relation markers occur at other levels of the grammatical hierarchy which are not associated with the notion of case.

A feature of Tondano, as of the languages of the Philippines, is that a verb, through its affixation in a particular construction, highlights or focuses attention on a particular case relationship. This case relationship is then said to be in focus.¹ The inflections on the verb which focus the various cases are voice affixes.²

The nominal dominated by the focused case is topicalised, or made Topic of the clause. Topicalisation in Tondano involves:

(i) Deletion of the chosen nominal's relation marker. (ii) Removal of the Topic nominal to pre-Predicate position. A later permutation rule may optionally or obligatorily shift Topic to post-Predicate

position (see 4.1.2.1.). (iii) Optional agreement with the Topic within the Predicate phrase (see 5.8.1.).

All cases which are not focused in a particular construction are said to be out of focus or unfocused. Any nominal dominated by an unfocused case is a non-Topic nominal.

A Verbal clause thus consists basically of a Topic nominal, a verb whose voice affix focuses the case of the Topic, and a string of other nominals each preceded by a case relator.

Most of the case relationships relevant to the situation described by the verb can be focused. Thus the verb typically can be inflected with one of a number of voice affixes, each of which focuses a different case relationship. When each of the cases is in turn focused, with concomitant topicalisation of the appropriate nominal, a number of different constructions are produced. If all these constructions contain the same lexical items they all have the same meaning,³ differing only in their choice of focused case and any structural changes this entails. Such a set or paradigm of clauses is called a battery of clause constructions or a clause battery.⁴

3.1.0.2. *Shift In Function Of Case Markers*

A characteristic of case markers in Tondano is that their function is not fixed. That is, a particular marker does not always signal the one case relationship but with different sets of constructions may mark different cases. This shift in function of case markers is a major basis for the classification of Tondano Verbal clauses. A further criterion for classification is clause class, as described in section 3.1.0.12.

3.1.0.3. *Clause Batteries*

Two sets or paradigms of clauses are different batteries if there is at least one case marker which has a difference in function in constructions of one set as against its function in constructions of the other set (a minor modification to this statement is made in section 3.1.1.1.5.).

3.1.0.4. *Verb Classes*

The system of clause batteries also presents a verb classificatory system. Two verb stems belong to the same class if they operate in the same battery and belong to different classes if they operate in different batteries.

Most verb stems have multiple classification, i.e., they belong to more than one stem class because they operate in more than one clause

battery. In particular, most stems can operate in more than one of the four clause classes. Some also operate in more than one battery within the same clause class (see 3.1.1.5.).

3.1.0.5. *Full And Reduced Batteries*

Two verb stems which belong to the same stem class can differ as to the number and types of case relationships relevant to the situations they describe. When this is so the two stems belong to different subclasses of the same stem class and operate in different versions of the same clause battery.

As an example, the verb stem *kelaŋ walk* describes a situation to which two cases are relevant, Subjective and Referential, while the stem *wewe hit* describes a situation in which two additional cases are relevant, Objective and Instrumental.

Both *kelaŋ* and *wewe* operate in the same clause battery because any case relationship which can occur in association with both verbs is always marked in the same way with one as with the other.

However, they operate in different versions of the one battery. The stem *kelaŋ* operates in a version which contains two constructions, one to focus each of the two case relationships which can occur, while *wewe* operates in a version which has four constructions, one to focus each of the four relevant cases.

Thus a clause battery can occur in a number of versions, each of which differs from every other in the number and/or types of case categories underlying its constructions. A version in which all cases occur is called the full version of the battery. All other versions lack one or more cases and are called reduced versions. All versions of one battery will meet the same description as regards the function of case markers (with one exception, see 3.1.1.1.5.).

3.1.0.6. *Standard Function Of Case Markers*

The function of a case marker may vary according to the battery in which it is operating. Each case marker is treated as having a standard case-marking function and any change from this is called a shift in function. The standard function of a case marker is defined as the role it plays in a particular clause battery called the Standard Battery.⁵ This is the battery of Active Verbal clauses in which every case marker operates, each with its distinctive function.

Almost all other clause batteries are characterised by a shift in case-marking function of at least one case marker. Those few batteries in which there is no such shift contrast with the Standard Battery in other formal features associated with Verbal clause class.

3.1.0.7. *Cases And Clause Classification*

Concerning sentence type and verb classification Fillmore (1968, p21) writes:

"The sentence in its basic structure consists of a verb and one or more noun phrases, each associated with the verb in a particular case relationship....

The various permitted arrays of distinct cases occurring in simple sentences express a notion of 'sentence type' that may be expected to have universal validity, independently of such superficial differences as subject selection. The arrays of cases defining the sentence types of a language have the effect of imposing a classification of the verbs in the language (according to the sentence type into which they may be inserted) and it is very likely that many aspects of this classification will be universally valid."

The present analysis agrees with Fillmore's approach in classifying verbs according to the clause types (Fillmore's simple sentence types) in which they may be inserted.

However, clause types are classified here primarily, not according to the case relationships occurring in them, but according to the ways in which case relationships are mapped into surface structure. Classification according to the possible array of cases occurring in the clause is secondary, i.e., defining battery versions rather than batteries.

3.1.0.8. *The Notion Of Case*

Explaining the term case, Fillmore writes (p24):

"The case notions comprise a set of universal, presumably innate, concepts which identify certain types of judgements human beings are capable of making about the events that are going on around them, judgements about such matters as who did it, who it happened to, and what got changed."

A number of linguistic descriptions have made use of Fillmore's case grammar, applying the 'universal concepts' to the analysis of sentences in various languages. Some of these accept Fillmore's suggested categories with little or no modification.

The term case as used in this work refers to the underlying roles which participants play in relation to the action expressed by the verb. However, these roles are not equated with Fillmore's universal concepts. No position is taken here for or against Fillmore's claim for the

existence of such universals. What is claimed is that no necessity exists for appeal to these universal notions for an adequate description of Tondano Verbal clauses.

The set of distinctive cases, or participant roles, recognised here are those necessary to account for surface phenomena in Tondano. The set is thus based on evidence from formal structure rather than on a consideration of the sorts of judgements humans are capable of making.

The cases thus comprise a set of language-particular concepts which identify the distinctive categories underlying Tondano syntactic relations. No claim need, or can, be made for the universality of such concepts. They occur at a much 'shallower' level than the deep case notions suggested by Fillmore.⁶

Some of the case distinctions Fillmore makes can be examined together with the reasons why these distinctions appear to be unnecessary to the description of Tondano syntax.

Fillmore regards the animate-inanimate distinction as highly relevant to participant roles. At least two cases, Agentive and Dative, can only be taken by nouns representing animate beings. He defines these cases (p24):

"Agentive, the case of the typically animate perceived instigator of the action identified by the verb.

Dative, the case of the animate being affected by the state or action identified by the verb."

While Tondano nouns overtly distinguish animate and inanimate class the distinction appears not to be relevant in determining the case categories necessary to describe syntactic relations.

First, Fillmore's Dative, in most of its surface manifestations in Tondano, can be conflated with Locative case. If the two cases were kept separate in Tondano the difference between them would be largely one of the animateness of the participant. Fillmore defines Locative:

"Locative, the case which identifies the location or spatial orientation of the state or action identified by the verb."

The overspecification of participant roles can be seen by considering the following constructions:

1a. si tuama mawee buku wia niaku

The man gives the book to me.

b. si tuama mawee buku wia meja

The man puts the book on the table.

In (1) the translation of the verb wee depends on the lexical item following the relator wia. When this noun represents an animate

participant *wee* is translated *give*, as in (a). When the noun represents an inanimate participant, as in (b), the verb is translated *put*, *place*. In English *give* is inserted into a case frame (see Fillmore, p27) containing Dative. *Put* is inserted into a case frame containing Locative. Retention of the case distinction for Tondano would require *wee* to be (in Fillmore's terms) inserted into two case frames, one containing Dative and one containing Locative, the choice depending on the animateness feature.

In English the Dative noun in (1a) can be subjectivalised in a passive construction. But the English construction in (1b) cannot be directly passivised with the Locative noun as subject of the verb *put*. However, this evidence for case distinction is lacking in Tondano. Both (1a) and (1b) can be 'passivised' with the noun following *wia* being topicalised, as in the following constructions:

- 2a. *nisia pawean ni tuama buku*
He is given the book by the man.
- b. *meja pawean ni tuama buku*
The table has the book put on it by the man.

In (2), as in (1), the Tondano constructions differ only in the choice of one lexical item, the relevance of animateness to case selection not being established by any formal grammatical evidence.

The recognition of a Dative-Locative distinction would, in the model of analysis adopted here, require the verb *wee* to occur in two batteries, one in which relation marker *wia* marks Dative out of focus (1a) and voice affix *-an* focuses Dative (2a) and a second battery in which the same case markers signal Locative case (1b,2b).

This would result in the establishment of two separate clause batteries, a distinction for which no formal evidence exists. Insistence on the relevance of the feature of animateness in assigning nouns to cases would thus result in unnecessary complexity to the grammatical description.

Consequently the distinction, as far as Dative and Locative are concerned, is not made. Fillmore's two cases are conflated into one case relationship called Referential. Some occurrences of Fillmore's Dative cannot be incorporated into Referential; these are discussed presently. The question of whether a Referential noun can be animate, inanimate or both becomes a property of the individual verb, not of the clause battery within which it operates.

Second, Fillmore's Agentive can be conflated with some instances of other cases where the case choice would, in Tondano, be largely determined by the feature or animateness.

Since Fillmore's Agentive is the case of the animate instigator, the Topic (Fillmore's subject) of an 'active' construction must hold some other case if it is inanimate. Consider the following:

- 3a. si tuama makelaŋ *The man walks.*
- b. si edo makelaŋ *The sun moves.*
- c. ntəberan makelaŋ *The river flows.*

According to Fillmore's criterion the Topic nominal of (3a), tuama *man*, holds Agentive while the inanimate Topic in (3c), təberan *river*, holds Objective.⁷

To maintain this distinction in Tondano would result in assigning (3a) and (3c) to separate clause batteries, one in which voice affix -um- (which combines with aspect affix pa- in the form ma-) focuses Agentive case (3a) and one in which -um- focuses Objective case (3c). Just as the Dative-Locative distinction would result in unnecessary complexity to the grammar, so too insistence on an Agentive-Objective distinction in the above constructions would add complexity without any compensating advantage.

A further problem would be the case relationship of edo *sun* in (3b). From scientific knowledge it is obvious that edo is not the animate instigator of the action. However, in Tondano edo belongs to the animate noun class (see 5.4.1.). The question then is, if animateness is held to be relevant to case, on which basis is it determined, scientific knowledge or the language's own classificatory system?

Huddleston (1970) questions the validity of some of the case distinctions Fillmore makes on the basis of animateness but does not altogether discount the relevance of the animate-inanimate distinction. He writes (p504):

"Prima facie evidence that animateness does have some relevance to participant roles is its connection with such notions as volition, intention, responsibility; except figuratively, these are not attributed to inanimates."

Regarding intention, Tondano makes no clear distinction between animate and inanimate participants. The aspect morpheme pəCə- (see 8.1.1.2.lg) expresses the notion of intention or desire or indicates that the action is on the point of occurring and can apply irrespective of the animateness of the participant (in the following constructions pəCə- is subjected to a number of morphophonemic changes):

- 4a. ku məwəwareŋ *I intend/want to go back.*
- b. ntoka mələlətok *The mountain is about to erupt.*

c. si ma'aro *It is about to rain.*

Here again, evidence is lacking that animateness has relevance to participant roles in Tondano.

A further difficulty with the distinction arises in Non-volitional clauses (see 3.1.4.). In the following constructions:

- 5a. si tuama rima'rag
 The man jumped down. (i.e., The man dropped (deliberately).)
- b. si tuama naikəra'rag
 The man fell. (i.e., (The man dropped (accidentally).)
- c. mbatu naikəra'rag
 The stone fell.

(5a) is a construction of the Standard Battery in which the Topic noun *tuama man* would be assigned to Agentive case. (5c) is a Non-volitional construction in which the Topic *watu stone* would be Objective. The problem arises in (5b) which is formally identical to (5c) except in the choice of the Topic noun.

If *tuama* in (5b) is Agentive then (5b) and (5c) belong to separate batteries because of the difference in the function of voice affixes. This problem has been pointed out several times above; two otherwise identical constructions would have to be treated as distinct solely on the basis of the animateness or otherwise of a participant.

On the other hand, to treat *tuama* in (5b) as holding Objective case is also unsatisfactory. The undesirability of recognising Objective in (5b) can better be seen in (6) which contrasts with (5b) only in the choice of verb stem:

6. si tuama naikali'lip
 The man managed (unexpectedly) to swim.

The choice of Objective would also result in a discrepancy between transitive and intransitive Non-volitional constructions.

This can be seen by comparing (5) with (7):

- 7a. si tuama simawut əmbu'uk
 The man deliberately plucked out a hair.
- b. si tuama naikəsawut əmbu'uk
 The man accidentally plucked out a hair.

The relationship between (5a) and (5b) is the same as that between (7a) and (7b), i.e., deliberate action as against unintentional action. But in (7b) *tuama* cannot hold Objective case, since this case is held by *wu'uk hair*, and can only be interpreted as Agentive, assuming these

categories are maintained. So if *tuama* in (5b) were classified as Objective there would be a difference in case relationship between (5a) and (5b) but not between (7a) and (7b), although the semantic difference between (a) and (b) is the same in both (5) and (7). No justification exists for such an inconsistency.

The above considerations show that in Tondano animateness is not relevant to syntactic relations of the kind being considered here and that insistence on maintaining the distinction in the semantic base would result in unnecessary complexity of description. Consequently no necessity exists for an Agentive-Objective distinction in constructions (3) to (7). The Topic nominal in these constructions can best be treated as holding one case relationship. This will result in simplification of description without abandonment of any of the distinctions the language requires. The label chosen for this case is Subjective. Of course a semantic distinction can be made between the notion of 'perceived instigator', as in (3a), and 'affected participant', as in (3c). The point, however, is that this distinction is not incorporated into the classificatory system of Tondano and should not be recognised in describing that system.⁸ All participants holding this case can be perceived as in some way performing the action, whether deliberately or willy-nilly.

Subjective case will also incorporate some instances of Fillmore's Dative. Fillmore (p31) assigns the animate source of such verbs as *look* and *listen* to Agentive and of such verbs as *see* and *hear* to Dative. The distinction accounts for certain characteristics of English verbs. For instance, only verbs taking Agentive case can have progressive aspect or occur in imperative sentences. Here Tondano requires no such Agentive-Dative distinction, *look* and *see* translating one verb, *looʔ*, and *listen* and *hear* translating one verb, *liŋa*. For instance,

8. *ku limooʔ nisia*

translates either *I saw him* or *I looked at him* as the context requires.

3.1.0.9. *The Case Categories*

Clause level grammatical relations in Tondano can best be described with reference to seven underlying case categories. Two of these, Causative and Associative, have no counterpart in Fillmore's case set. The seven cases are now given with an indication of the semantic role, or roles, specified by each. Cases will as a rule be referred to by the abbreviated symbols given in parentheses after their names.

Subjective (S'): The case of the primary participant in the action or state specified by the verb; the initiator of an action or the partic-

ipant affected by an action of which there is no external initiator or source; the participant which can be perceived as in some way performing the action, whether deliberately or willy-nilly.

Objective (O'): The case of the participant involved in or affected by an action performed by some other participant.

Instrumental (I'): The case of the instrument or means by which the action is performed.

Referential (R'): The case of the location of the action or of the person or place to or from which the action is directed.

Causative (C'): The case of the causer of the action, i.e., the one who causes (orders, requests, allows) the subject to perform the action or allows or waits for the action to occur.⁹

Benefactive (B'): The case of the participant for whose benefit the action is performed.

Associative (A'): The case of the participant in whose company the subject performs the action.

The participants in the action can be referred to according to their case relationships. Thus the participant holding Subjective case is the subject, the participant holding Objective case is the object, and so on.

3.1.0.10. *The Case Markers*

Of the seven cases C' is a feature only of Causative clauses (see 3.1.2.). All the others occur in the Standard Battery. B' and A' do not have their own distinctive case markers. These two cases are not considered in the subclassification of clauses and are discussed separately in section 3.1.1.5.

Each of the remaining cases, S', O', I' and R', functions in the Standard Battery, each with its distinctive case markers.

The four voice affixes are given in Fig.I together with their standard function labels.

Fig. I: Voice affixes

-um-	Subject voice	i-	Instrument voice
-ən	Object voice	-an	Referent voice

The voice morphemes do not always have the phonemic shapes by which they are represented in Fig. I. Here they are abstracted from the morpheme clusters within which they occur and by which they are conditioned. Allomorphs of voice morphemes are described in section 8.1.1.1.1.

Any two clauses whose verbs are differently inflected for voice are different clause constructions. Constructions are labelled according

to the particular voice affixation of the Predicate verb. Thus a clause in which the verb is inflected with *-um-* is a Subject voice construction, one in which the verb is inflected with *-ən* is an Object voice construction, and so on.

This labelling is based on voice affixation and is independent of the particular case relationship being focused. Hence an Object voice construction may be one in which O' is focused (e.g., in the Standard Battery) or one in which S' is focused (e.g., in some Causative batteries) and so on, the focusing function of the voice affix being a feature of the clause battery to which the construction belongs.

Relators correspond to the four voice affixes and are likewise labelled according to their standard function. Thus the relator which marks S' in the Standard Battery is labelled the Subject relator, and so on. A set of Referent relators occur, signalling distance as well as case. The Object relator has zero manifestation.¹⁰ Case relators are detailed in section 5.1.

3.1.0.11. *Mapping Rules And Clause Bases*

In the following description of verbal clauses a semantic base is posited comprising the set of cases or participant roles underlying clause level syntactic relations.

Linking the semantic base to surface structure are transformational rules called mapping rules. These specify the ways in which the cases are marked in surface structure.

Since the marking of case relationships varies from battery to battery the set of mapping rules must be specified for each battery. Two batteries sometimes have identical mapping rules but contrast on other grounds, i.e., they belong to separate clause classes (see 3.1.0.12.).

There are two sets of mapping rules: marking rules and focus rules. Marking rules specify the way in which each case relationship is marked within the battery when out of focus; they indicate the function of each relator. Focus rules specify the way in which each case is focused within the battery; they indicate the function of each voice affix.

Not every battery makes use of the whole of the semantic base. For instance, Causative case is a feature only of Causative batteries. For each battery a clause base¹¹ is set up. The clause base specifies the cases underlying constructions of the battery and the class of verb stems which are inserted into those constructions.

Derivation of constructions proceeds in two stages. First, the marking rules are applied to the clause base. This, together with

lexical insertion, produces the string (verb plus prepositional phrases) underlying all the constructions of the battery.

The next stage is the derivation of a construction from the underlying string. One case is selected for focusing. The focus rules specify the particular voice affix which will focus the selected case. Topicalisation, as outlined in section 3.1.0.1., works on the nominal holding the focused case.

The application of each focus rule in turn derives all the constructions which together make up the battery. Thus all the constructions of the battery are of equal status, each deriving from the same underlying string and none being regarded as primary or as the kernel from which the others derive.

When a battery occurs in more than one version, each version has its own clause base. This specifies the subclass of verbs operating in the version and the set of cases underlying constructions of the version.

Since mapping rules define the battery they are identical for all versions (with the exception noted in 3.1.1.1.5.) although the various versions differ as to the part of the total set of mapping rules applicable to them.

It should be noted that a shift in function of a case marker of one type does not entail any shift in function of the corresponding marker of the other type. For instance, in one battery (Active Battery Two) Instrument voice affix shifts in function to focus O', but Instrument relator does not shift to mark O' out of focus, this function being retained by Object relator. Two constructions of this battery are given in (9) with the verb stem *waŋker sell*. The constructions are restricted, not all participants being expressed.

- 9a. *ku maŋker si ko'ko'*
 b. *si ko'ko' iwaŋkerku*
I will sell the hen.

In (a) Object relator (zero) marks O'. In (b) O' is focused, the object nominal *si ko'ko' hen* being topicalised. But O' is focused by Instrument voice affix *i-*, not by Object voice affix *-ən*. Thus in this battery Instrument voice affix shifts in function but there is no corresponding shift in the function of Instrument relator.

In the description of each clause battery focus and marking rules must be separately indicated as joint rules could not account for this inconsistency in function shift. Also, in some batteries certain cases cannot be focused. Separate focus rules are thus necessary to indicate which cases are capable of taking focus.

For each version of a battery the clause base is stated according to the format in Fig. II. The class of verb stems is specified, followed by a list of the cases underlying constructions of the version. Labels for the cases are placed in brackets.

Fig. II: Clause base format

verb stem class [cases]

This format is exemplified for the full version of the Standard Battery (labelled AB1a) in Fig. III. This indicates that the cases S', O', I' and R' underlie constructions of this set and that verbs of stem class AV1a are inserted into the constructions.

Fig. III: Full Standard Battery clause base

AV1a [S' O' I' R']

Mapping rules must be stated for each battery. These can be shown graphically by a series of arrows applied to the base. If, however, the battery has a number of versions, each with its own base, then a composite base must be used incorporating all cases occurring in all versions of the battery and specifying the class of verb stems operating in the battery rather than the subclass operating in any particular version (as occurs in Fig. III). Each arrow is broken by a symbol. The arrows indicate the cases and the superimposed symbols indicate the case markers. Mapping rules are illustrated for the Standard Battery. First, marking rules are indicated as in Fig. IV. Since the full version of the Standard Battery incorporates all four cases the composite base in Fig. IV is the same as the clause base for the full version except that the class of verb stems (AV1) is specified and not the subclass (AV1a) occurring in the full version.

Fig. IV: Standard Battery marking rules

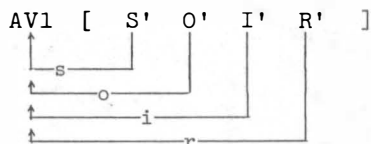


Fig. IV shows how each case is marked out of focus in constructions of the Standard Battery. The letters s, o, i, r indicate Subject, Object, Instrument and Referent respectively. The marking of a particular case is indicated by the label for the relator superimposed on an arrow running from the label for that case to the label of the verb stem class.

Focus rules are indicated as in Fig. V.

Fig. V: Standard Battery focus rules

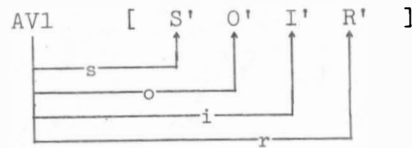


Fig. V shows how each case is focused in constructions of the Standard Battery. The small letters s, o, i, r are symbols for Subject, Object, Instrument and Referent voices. An arrow indicates that the voice inflection on the verb specified by the superimposed symbol focuses the case to whose label the arrow points.

The marking and focus rules, as presented in Figs. IV and V, can be simplified for clarity and to highlight the characteristics of each battery. In the formal statement for any battery the function of a case marker will only be indicated when it has shifted from its standard function. When a case is marked by its standard marker this will be indicated by the absence of any overt mapping rule. When all the markers of any type function in the standard way the rules will be replaced by the word 'standard'.

The rules for the Standard Battery, given in Figs. IV and V, can thus be abbreviated as in Fig. VI.

Fig. VI: Standard Battery mapping rules

marking rules: standard
focus rules: standard

Two constructions of Active Battery Two (AB2) are illustrated in (9) above. Constructions of this battery contain verbs of stem class AV2 and the cases S', O', I' and R' occur in the full version. The only shift in function is that of Instrument voice. The mapping rules for this battery can be stated as in Fig. VII.

Fig. VII: AB2 mapping rules

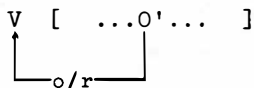
marking rules: standard
focus rules: AV2 [S' O' I' R']
 └───┬───┘
 i

Fig. VII indicates that in this battery all case markers perform their standard function except that Instrument voice affix shifts in function to focus O', as well as performing its standard function of focusing I'.

In some batteries a case relationship can be signalled by either of two case markers. This is indicated in the marking rules or focus rules

(in whichever the feature occurs) by the presence of both symbols, separated by a slash. Thus, if in a battery O' is marked out of focus by either Object or Referent relator, this is indicated in the marking rules as in Fig. VIII.

Fig. VIII: Choice of case markers



It sometimes happens that a case can be expressed within a version of a particular battery but cannot occur in focus. This is indicated in the formal statement for the version by repeating the battery's focus rules but with the case in question absent from the base given in those focus rules. The first example of this is seen in section 3.1.1.1.3.

3.1.0.12. *Verbal Clause Classes*

There are four classes of Verbal clauses: Active, Causative, Reciprocal and Non-volitional. Each class comprises a number of clause batteries.

The four classes contrast in the following ways:

(i) Verbal inflection. Verbal inflection always identifies the clause class of a construction (although some instances of homophony require a voice transformation to disambiguate).

(ii) The type of action described. The four types of action are indicated by the labels of the four classes.

(iii) Function of case markers. The set of mapping rules for any two batteries of the one clause class tend to share certain characteristics unique to that class. With one or two exceptions the differences in the function of case markers would still require the recognition of separate batteries even if clause class were not a criterion for battery classification.

Point (i), verbal inflection, is the criterion for clause class and identifies two constructions as belonging to separate classes even if they differ in no other way. Thus several Causative batteries are distinguished from Active batteries solely on the basis of their verbal inflection (see 3.1.2.4. for further comment). This approach provides a mechanical means of assigning clauses to classes and does not depend on interpretation of semantic relationships or action type to determine class.

3.1.0.13. *Tagmemic Description*

As noted in section 1.2, the surface structure of clauses is described according to the tagmemic model. The nominal holding the focused case relationship expounds the Topic slot (T) of the clause. The verb occurs at a lower level within the Predicate phrase which expounds the Predicate slot (P). The other nominals together with their case relators form Relator-Axis phrases. Each of these Relator-Axis phrases expounds a tagmeme whose grammatical function is Subject, Object, Instrument or Referent, these functions being indicated by the capital letters S, O, I, R respectively. Each of these grammatical functions is correlated with a semantic function (case relationship), the correlation varying from battery to battery and specified in each battery's marking rules. The slots are labelled according to the cases with which they correlate in the Standard Battery.

In examples throughout the grammar, except in section 5.1.2, the zero Object relator is not indicated in l/s translations.

The term 'nominal' has been used above as a cover term for Noun phrases and Pronoun phrases, both of which are described in Chapter Five. Besides these, the participant holding Objective case can be manifested as a Quotation (see 4.1.1.)¹² or an Object Complement (see 5.7.).¹³

3.1.0.14. *Arrangement*

In the following description of Basic Verbal clauses each clause class is treated separately. First, the features diagnostic of the clause class are briefly stated. This is followed by a separate description of each battery within the clause class.

In the description of a battery, first its distinctive characteristics are noted. This includes a specification of the case marking features which distinguish the battery from all other batteries of the same clause class. A formal statement follows, giving the mapping rules in the manner indicated in section 3.1.0.11.

Each version of the battery is then described individually. The set of cases which underlie constructions of the version are noted, together with any other features which distinguish it from all other versions of the same battery. A formal statement is then given. This includes the clause base and a list of stems representative of the relevant verb subclass together with English glosses. Finally an exemplary paradigm is given illustrating each of the constructions derived from the clause base by the application of the mapping rules.

Each battery is labelled as follows. First, the clause class is identified by the capital letters A (Active), C (Causative), R (Reciprocal) or N (Non-volitional) plus B (Battery). Next, batteries are numbered (1, 2, 3 ...) in the order in which they are described. When a battery occurs in more than one version, each version is labelled with a small letter (a, b, c ...). Thus the label AB1c denotes Active Battery One, version c.

Classes and subclasses of verb stems are labelled according to the battery and version in which they occur. The letter V (verb) replaces the letter B. Thus AV1c indicates Active verb stem class one, subclass c, which is the subclass of verb stems operating in AB1c.

When a battery occurs in only one version the formal statement for the battery will include the clause base, the list of representative stems and the exemplary paradigm.

Each construction in the paradigm is provided with a literal/structural translation, as described in section 1.2, and the paradigm as a whole is followed by a free translation. In addition, the following points should be noted: (i) To the left of each construction an indication of its voice is given by the letters SV (Subject voice), OV (Object voice), IV (Instrument voice), RV (Referent voice). The same label as occurs to the left of the construction is given, with small letters, below and to the right of the literal translation of the verb stem. This latter indication of voice is given in examples throughout the grammar. Thus

SV kumelaŋ
P: walk_{sv}

indicates a Subject voice construction in which the Predicate contains the Subject voice verb kumelaŋ *walk*. (ii) The focused case is indicated in brackets below and to the right of the translation of the Topic exponent. Thus

si tuama
T:cm man_[S']

specifies that the Topic exponent, si tuama, holds Subjective case. The case relationship of a non-Topic nominal is likewise indicated when the relator has undergone a shift in function or when such indication is thought necessary for clarity even if no shift in function has occurred.

The symbols S, O, I, R specify functional slots; the symbols S', O', I', R' specify case relationships.

Examples of clause constructions in this chapter have been chosen for simplicity and contain only nuclear clause level tagmemes. Optional tagmemes at all levels below the clause level are also absent wherever this does not result in unnatural constructions.

3.1.1. Active Clauses

3.1.1.0. Active verbal clauses are identified in a negative way; they are those clauses in which verbal inflection does not identify one of the other clause classes. Some inflections associated with Subject voice Active clauses are homophonous with inflections in Subject voice Non-volitional clauses. With these constructions clause class can always be determined by a transformation of the clause to a non-Subject voice construction.

The meaning of Active clauses is likewise identified in a negative way; they describe events which are non-causative, non-reciprocal and which are not non-volitional.¹⁴

All case relationships, except C', may be expressed in Active constructions, although most cases are excluded from various versions of each battery. B' and A' are described separately in section 3.1.1.6. There are four batteries of Active clauses, the Standard Battery and three other batteries, each characterised by a shift in function of at least one case marker.

3.1.1.1. Active Battery One: *The Standard Battery*

The Standard Battery (AB1) is characterised by the standard function performed by each case marker. AB1 has a full version and five reduced versions. Some versions of AB1 make use of the same cases as each other but differ formally in various ways.

AB1 marking rules: standard
focus rules: standard

3.1.1.1.1. AB1 version a

AB1a is the full version of the Standard Battery. All case markers operate in this version, each with its standard function.

AB1a base: AV1a [S' O' I' R']

Representative AV1a verb stems:

ali	<i>carry</i>	rərət	<i>slice</i>
kaan	<i>eat</i>	upuʔ	<i>harvest</i>
kətor	<i>cut</i>	wewe	<i>hit</i>
keoŋ	<i>pull</i>	wunuʔ	<i>kill</i>

Exemplary paradigm:

SV	si tuama	kumeoŋ	roda	wo ntali	witu lalan
	T: cm man _[S']	P: pull _{SV}	O: cart	I: rm ₁ cm-rope	R: rm _R road
OV	roda	keoŋən	ni tuama	wo ntali	witu lalan
	T: cart _[O']	P: pull _{OV}	S: rm _S /cm man	I: rm ₁ cm-rope	R: rm _R road
IV	tali	ikeoŋ	ni tuama	roda	witu lalan
	T: rope _[I']	P: pull _{IV}	S: rm _S /cm man	O: cart	R: rm _R road
RV	lalan	keoŋən	ni tuama	roda	wo ntali
	T: road _[R']	P: pull _{RV}	S: rm _S /cm man	O: cart	I: rm ₁ cm-rope

The man will pull the cart on the road with the rope.

3.1.1.1.2. AB1 version b

AB1b lacks I' from its base. Verbs of stem class AV1b, which operate in this version, denote actions to which I' is not applicable. Some of these stems describe actions to which an instrument would appear to be relevant, but an instrument can only be expressed by means of a Conjoined clause (see 6.1.1.).

AB1b base: AV1b [S' O' R']

Representative AB1b verb stems:

kawəŋ	marry	lutuʔ	cook
kooʔ	drink	siwo	cook, make
liŋa	hear	tələs	buy
looʔ	see	tunu	burn

Exemplary paradigm:

SV	si papa	tumələs	si tiey	wia si kaʔampitəna
	T: cm father _[S']	P: buy _{SV}	O: cm pig	R: rm _R cm friend-his
OV	si tiey	tələsən	ni papa	wia si kaʔampitəna
	T: cm pig _[O']	P: buy _{OV}	S: rm _S /cm father	R: rm _R cm friend-his
RV	si kaʔampitəna	tələsən	ni papa	si tiey
	T: cm friend-his _[R']	P: buy _{RV}	S: rm _S /cm father	O: cm pig

Father will buy the pig from his friend.

3.1.1.1.3. AB1 version c

AB1c contains two constructions, Subject voice and Object voice. Some verbs operating in this version can take R', but it cannot be

focused. Other stems cannot take R', a Conjoined clause (see 6.1.1.) being required to express this. The possibility of R' occurring with only some stems is not regarded as sufficient reason for recognising two versions since with all stems only two constructions can occur. In the statement of the clause base below R' is placed in parentheses to indicate that its occurrence depends on the particular verb stem. Focus rules must be given to specify that only S' and O' can be focused.

ABlc base: AVlc [S' O' (R')]
 focus rules: AVlc [S' O']

Representative AVlc verb stems:

gegey	carry in the hand	leley	carry (child) on shoulders
geŋaŋ	think about, consider	pəsa'an	carry (things) on the shoulder
ideʔ	frighten	su'un	carry on the head
iraŋ	embarrass	upiʔ	anger

Exemplary paradigm:

SV si wəwene sumu'un lo'lo'
 T:cm woman[S'] P:carry-on-head_{SV} O:basket

OV lo'lo' su'unən ni wəwene
 T:basket[O'] P:carry-on-head_{OV} S:rm_S/cm woman

The woman will carry the basket on her head.

3.1.1.1.4. AB1 version d

AB1d lacks both O' and I'. Its base contains only two cases, S' and R'.

AB1d base: AV1d [S' R']

Representative AV1d verb stems:

ga'gar	spring up (of water)	rədey	stand
karo'koʔ	boil (of water)	rubər	sit
kelaŋ	walk	təkəl	sleep
li'lip	swim	tewel	fly

Exemplary paradigm:

SV si tuama rumubər witu ŋkadera
 T:cm man[S'] P:sit_{SV} R:rm_R cm-chair

RV kadera rubəran ni tuama
 T:chair[R'] P:sit_{RV} S:rm_S/cm man

The man will sit in the chair.

3.1.1.1.5. AB1 version e

This version, referred to in section 3.1.0.3., is the exception to the rule that any shift in the function of case markers requires a new battery. In ABle Object relator shifts in function to mark R'. However, the shift is only optional and is accompanied by no other shifts from standard function. This set of constructions is therefore treated as a version of the Standard Battery rather than as a new battery on the basis of one optional function shift.

ABle bears a formal resemblance to battery AB3 and it could be argued that it is a version of AB3. However, the fact that the case marked by Object or Referent relator out of focus and by Referent voice in focus is R' in ABle, and not O' as in AB3, is indicated by the following evidence: (i) Stems operating in ABle occur also in AB2b in which an extra case, Objective, occurs (although not all stems operating in AB2b also operate in ABle). Comparison with AB2b shows that ABle constructions lack O' (see also 3.1.1.5d. for a comparison of AVle and AV2b stems). (ii) Stems operating in ABle function in the same Causative construction as stems from other Active sets lacking O' (see 3.1.2.2.). Marking rules are given below to show that R' can be marked in one of two ways.

ABle base: AVle [S' R']
 marking rules: AVle [S' R']
 ↑ |
 o/r

Representative AVle verb stems:

gorəm	<i>enter</i>	rərəm	<i>go beneath</i>
kaluar	<i>leave, go out</i>	sakə	<i>mount, ride (horse)</i>
kawok	<i>climb (tree)</i>	serət	<i>get in, drive (vehicle)</i>

Exemplary paradigm:

SV	si tuama	sumake	si kuda
	T:cm man[S']	P:ride _{sv}	O:cm horse[R']
SV	si tuama	sumake	wia si kuda
	T:cm man[S']	P:ride _{sv}	R:rm _r cm horse[R']
RV	si kuda	sakean	ni tuama
	T:cm horse[R']	P:ride _{rv}	S:rm _s /cm man

The man will ride (on) the horse.

3.1.1.1.6. *AB1 version 6*

AB1f constructions are meteorological clauses. The small group of stems known to function in this version also occur as nouns indicating natural phenomena. AB1f contains two constructions, Subject voice and Referent voice, and is recognised as having S' and R' in its base. However, no nominal occurs which can be associated with S'. Thus there is no Subject tagmeme and in the Subject voice construction no Topic tagmeme occurs. S' is therefore regarded as the case of a null participant. In the Subject voice construction an animate topic marker (see 5.8.1.) occurs optionally within the Predicate phrase, e.g., (si) maro *It will rain*, (si) ruməgəs *It will be windy*. Here si has a somewhat equivalent function to the subject *it* in the English translation in that they both refer to a non-existent participant.¹⁵

AB1f base: AV1f [S' R']

Representative AV1f verb stems:

aro	<i>rain</i>	pəŋeroʔ	<i>quake (of earthquake)</i>
kerap	<i>flash (of lightning)</i>	rəgəs	<i>blow (of wind)</i>
ləntər	<i>thunder</i>	tariʔtik	<i>drizzle, rain lightly</i>

Exemplary paradigm:

SV mətəmpəl waki titiwuŋən
 P:*drizzle*_{SV} R:rm_R *Titiwungen*

RV titiwuŋən pətəmpələn
 T:*Titiwungen*_[R'] P:*drizzle*_{RV}

It is drizzling in Titiwungen.

3.1.1.2. *Active Battery Two*

AB2 is characterised by a shift in function of Instrument voice to focus O'. Consequently no Object voice construction occurs in this battery.

A semantic feature characteristic of verbs (stem class AV2) operating in this battery is that the object is moved in a direction away from the subject. Apparently any stem specifying such activity belongs to AV2 although a few other verbs, in which the directional activity is not apparent, also belong to the class.

There are two versions of this battery, a full version and one in which I' is lacking.

AB2 marking rules: standard

focus rules: AV2 [S' O' I' R']

3.1.1.2.1. AB2 version a

AB2a is the full version of the battery. Two Instrument voice constructions occur, one in which O' is focused and one in which Instrument voice retains its standard function of focusing I'.

AB2a base: AV2a [S' O' I' R']

Representative AV2a verb stems:

enson	<i>push, slide</i>	tulis	<i>write</i>
sebok	<i>bail, tip out</i>	wa'kas	<i>tie</i>
todo	<i>push</i>	wəroy	<i>lower</i>

Exemplary paradigm:

SV	si tuama	sumebok	əndano	witu lodey	wo luka?
T:cm	man _[S']	P:bail _{sv}	O:cm-water	R:rm _r boat	I:rm _i scoop
IV	dano	isebok	ni tuama	witu lodey	wo luka?
T:water	[O']	P:bail _{iv}	S:rm _{s/cm} man	R:rm _r boat	I:rm _i scoop
IV	luka?	isebok	ni tuama	ndano	witu lodey
T:scoop	[I']	P:bail _{iv}	S:rm _{s/cm} man	O:cm-water	R:rm _r boat
RV	lodey	sebokan	ni tuama	ndano	wo luka?
T:boat	[R']	P:bail _{rv}	S:rm _{s/cm} man	O:cm-water	I:rm _i scoop

The man will bail out the water from the boat with a scoop.

3.1.1.2.2. AB2 version b

AB2b lacks I' from its base. Instrument voice functions only to focus O'.

AB2b base: AV2b [S' O' R']

Representative AV2b verb stems:

kirim	<i>send</i>	tanəm	<i>plant</i>
ra'rag	<i>drop</i>	tea'	<i>throw away</i>
rəta'	<i>put down, place</i>	wareŋ	<i>return, give back</i>
rura'	<i>spit out</i>	wee	<i>give, put</i>

Exemplary paradigm:

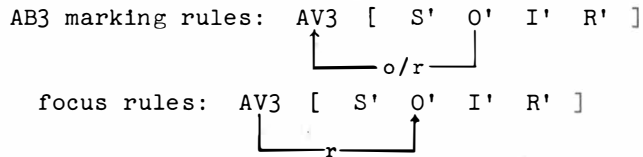
SV	si tuama	tumanəm	kaan	witu ləpo
	T:cm man _[S']	P:plant _{sv}	O:rice	R:rm _r field
IV	kaan	itanəm	ni	tuama witu ləpo
	T:rice _[O']	P:plant _{iv}	S:rm _s /cm man	R:rm _r field
RV	ləpo	tanəman	ni	tuama kaan
	T:field _[R']	P:plant _{rv}	S:rm _s /cm man	O:rice

The man will plant the rice in the field.

3.1.1.3. Active Battery Three

AB3 is characterised by a shift in function of Referent voice to focus O'. Consequently, as in AB2, no Object voice construction occurs. Another feature is that out of focus O' can be marked by either Referent or Object relator.

With verbs in this battery, unlike AV2 verbs, a common semantic component is difficult to detect. Some verbs with similar meanings to AV3 verbs belong to different classes, e.g., tiboy (AV3) and sikop (AV1) *catch*, sawaŋ (AV3) and tuluŋ (AV1) *help*. Many AV3 verbs involve some sort of cleaning activity while others indicate that the object is subjected to the removal of something.¹⁶



3.1.1.3.1. AB3 version a

AB3a is the full version of the battery. Two Referent voice constructions occur, one to focus O' and one to focus R'. Object and Referent tagmemes are shown as alternatives within the same constructions of the exemplary paradigm rather than in separate constructions.

AB3a base: [S' O' I' R']

Representative AV3a verb stems:

kəməs	wash, launder	so'sop	scale (fish)
kuliʔ	skin, peel	tiboy	seize, catch
kuwaŋ	dehusk	tutuŋ	turn on (lamp), light (candle)
ni'nis	brush (teeth)	wə'təs	trap, snare

Exemplary paradigm:

SV si mama kuməməs (witu) labuŋ wo nsaboŋ
 T:cm mother_[S'] P:wash_{SV} { O: } clothes_[O'] I:rm_I cm-soap
 { R:rm_R }

witu lələlə'an
 R:rm_R washroom

RV labuŋ kəməsan ni mama wo nsaboŋ
 T:clothes_[O'] P:wash_{RV} S:rm_S/cm mother I:rm_I cm-soap

witu lələlə'an
 R:rm_R washroom

IV sabooŋ ikəməs ni mama (witu) labuŋ
 T:soap_[I'] P:wash_{IV} S:rm_S/cm mother { O: } clothes_[O']
 { R:rm_R }

witu lələlə'an
 R:rm_R washroom

RV lələlə'an kəməsan ni mama (witu) labuŋ
 T:washroom_[R'] P:wash_{RV} S:rm_S/cm mother { O: } clothes_[O']
 { R:rm_R }

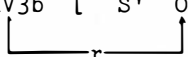
wo nsaboŋ
 I:rm_I cm-soap

Mother will wash the clothes with soap in the washroom.

3.1.1.3.2. AB3 version b

AB3b lacks I' from its base. Another feature of this version is that R' can only occur out of focus.¹⁷ Focus rules are given to show that only S' and O' can be focused.

AB3b base: AV3b [S' O' R']

focus rules: AV3b [S' O']


Representative AV3b verb stems:

ki'wəl	<i>squeeze, hold tightly</i>	sioŋ	<i>kiss</i>
kutu	<i>delouse</i>	tayur	<i>guard</i>
pe'an	<i>taste</i>	tu'us	<i>observe, scrutinise</i>
sawaŋ	<i>help</i>	wədu	<i>tire, exhaust</i>

Exemplary paradigm:

SV si papa sumawaŋ (wia) si tuama witu numa
 T:cm father_[S'] P:help_{SV} $\left. \begin{array}{l} \text{O:} \\ \text{R:rm}_R \end{array} \right\}$ cm man_[O'] R:rm_R cm-garden

RV si tuama sawaŋan ni papa witu numa
 T:cm man_[O'] P:help_{RV} S:rm_S/cm father R:rm_R cm-garden

Father will help the man in the gardens.

3.1.1.4. Active Battery Four

AB4, which has only one version, is characterised by a shift in function of Object case markers to signal R'. Only two cases occur, S' and R', and there are two constructions, Subject voice and Object voice. The case marked by the Object case markers is identified as R' by comparison with AB2b constructions in which the same stems operate and an extra participant occurs holding O' (see 3.1.1.5e. for a comparison of AB2b and AB4). Only a small number of AV4 stems have been identified but it is expected there are others.

AB4 base: AV4 [S' R']

marking rules: AV4 [S' R']
 $\left. \begin{array}{l} \uparrow \\ \text{---} \\ \circ \end{array} \right\}$

focus rules: AV4 [S' R']
 $\left. \begin{array}{l} \text{---} \\ \circ \\ \uparrow \end{array} \right\}$

AV4 verb stems:

laŋkoy	go past	tawi	approach, go near
ledoŋ	go round	todoŋ	follow, go behind
saru	face, go toward		

Exemplary paradigm:

SV si tuama tumawi mbale
 T:cm man_[S'] P:approach_{SV} O:cm-house_[R']

OV mbale tawin ni tuama
 T:cm-house_[R'] P:approach_{OV} S:rm_S/cm man

The man will go toward the house.

3.1.1.5. Multiple Classification Of Verb Stems

It is mentioned in section 3.1.0.4. that many verb stems operate in more than one set of constructions and therefore belong to more than one class. A number of stems, in addition to operating in more than

one clause class, operate in two batteries within the Active clause class or within two versions of the one Active battery. Most cases of such dual classification involve stems which can occur either with or without an object participant. Each subsection below deals with a particular set of such dual class verbs, grouped according to the sets of constructions in which they operate. For each group of stems a representative list is provided with an indication of their meanings in each of the sets of constructions in which they operate. Only relevant constructions and cases are included in examples.

(a) A number of stems operate with O' in the full Standard Battery (AB1a) and without O' in a reduced version (AB1d). Among these stems are a considerable number which function also as descriptives.

Representative stems:

	AB1a	AB1d
lələ?	<i>bath (someone)</i>	<i>bath (oneself)</i>
pate	<i>kill</i>	<i>die</i>
səla	<i>enlarge (something)</i>	<i>become bigger</i>
toto?	<i>suckle</i>	<i>suck at breast</i>
ae	<i>go and fetch</i>	<i>go</i>

Example:

AB1a

SV si mama lumələ? si oki? witu lələlə'an
 T:cm mother P:bath_{sv} O:cm child R:rm_r bathroom

OV si oki? lələ'en ni mama witu lələlə'an
 T:cm child P:bath_{ov} S:rm_s/cm mother R:rm_r bathroom

Mother will bath the child in the bathroom.

AB1d

SV si mama lumələ? witu lələlə'an
 T:cm mother P:bath_{sv} R:rm_r bathroom

Mother will bath in the bathroom.

(b) Some stems indicating various means of carrying operate in AB1c and in AB2b. In AB2b they indicate action directed toward another person while in AB1c they indicate action not directed toward another person.

Representative stems:

	AB1c	AB2b
gegey	carry by hand	put in (someone's) hand
leley	carry (child) on shoulder	put on (someone's) shoulder
peša'an	carry (thing) on shoulder	put on (someone's) shoulder
su'un	carry on the head	put on (someone's) head

Example:

AB1c

SV si wəwene sumu'un lo'lo'
 T:cm woman P:carry-on-head_{SV} O:basket

OV lo'lo' su'unən ni wəwene
 T:basket P:carry-on-head_{OV} S:rm_S/cm woman

The woman will carry (or:put) the basket on her head.

AB2b

SV si wəwene sumu'un lo'lo' wia si oki'
 T:cm woman P:carry-on-head_{SV} O:basket R:rm_R cm child

IV lo'lo' isu'un ni wəwene wia si oki'
 T:basket_[O'] P:carry-on-head_{IV} S:rm_S/cm woman R:rm_R cm child

The woman will put the basket on the child's head.

(c) A large number of stems operate without O' in AB1d and with O' in AB2 (in either version a or b).

Representative stems:

	AB1d	AB2
ke'ke'	laugh	laugh at, ridicule
rədey	stand, rise	build, erect
tiŋkas	run	run with, abduct
rəta'	lie, be situated	put, place
wareŋ	return, go back	return, take back

Example:

AB1d

SV si tuama mareŋ waki walena
 T:cm man P:return_{SV} R:rm_R house-his

The man will return to his house.

AB2

SV si tuama mareŋ ləloŋkotan waki wale
 T:cm man P:return_{SV} O:ladder R:rm_r house

IV ləloŋkotan iwareŋ ni tuama waki wale
 T:ladder_[O'] P:return_{IV} S:rm_s/cm man R:rm_r house

The man will return the ladder to the house.

(d) As mentioned in section 3.1.1.1.5., verb stems of class AVle also occur with O' in class AV2b. Comparison with AB2b shows Able to have R', and not O', in its base.

Representative stems:

	Able	AB2b
gorəm	enter	put, take inside
kaluar	leave	take out
sake	mount (horse)	put onto (horse)
seret	get in (vehicle)	put into (vehicle)

Example:

Able

SV si tuama gumorəm (witu) mbale
 T:cm man P:enter_{SV} $\left\{ \begin{array}{l} O: \\ R:rm_r \end{array} \right\}$ cm-house

The man will enter the house.

AB2b

SV si tuama gumorəm sinaput witu mbale
 T:cm man P:enter_{SV} O:parcel R:rm_r cm-house

IV sinaput igorəm ni tuama witu mbale
 T:parcel_[O'] P:enter_{IV} S:rm_s/cm man R:rm_r cm-house

The man will take the parcel into the house.

(e) The small group of stems known to function in AB4 occur also in AB2b. Comparison with AB2b shows AB4 to have R', and not O', in its base.

Representative stems:

	AB2b	AB4
lan koy	take past	go past
ledon	take around	go around

saru *face (something) toward* *turn toward*
 tawi *take close to* *approach*

Example:

AB2b

SV si tuama lumedoŋ si oki? waki lour
 T:cm man P:around_{SV} O:cm child R:rm_r lake

IV si oki? iledoŋ ni tuama waki lour
 T:cm child_[O'] P:around_{IV} S:rm_S/cm man R:rm_r lake

RV lour ledoŋan ni tuama si oki?
 T:lake P:around_{RV} S:rm_S/cm man O:cm child

The man will take the child around the lake.

AB4

SV si tuama lumedoŋ lour
 T:cm man P:around_{SV} O:lake_[R']

OV lour ledoŋan ni tuama
 T:lake_[R'] P:around_{OV} S:rm_S/cm man

The man will go around the lake.

(f) Some stems can occur with O' in two different batteries, usually, though not always, having a somewhat different meaning in each battery. The following stems occur in AB1 and in either AB2 or AB3.

	AB1	AB2
rədey	<i>straighten</i>	<i>erect, build</i>
əna?	<i>await</i>	<i>stop (someone)</i>
səŋo	<i>blow on (hands), blow up (fire)</i>	<i>blow away (something)</i>
tulis	<i>write</i>	<i>write</i>
	AB1	AB3
ide?	<i>frighten</i>	<i>frighten</i>
sawəl	<i>change (clothes)</i>	<i>replace, exchange</i>
ləle?	<i>bath (someone)</i>	<i>baptise</i>
liŋa	<i>listen</i>	<i>follow advice</i>

Examples:

1. rədey

AB1b

OV pipa rədeyən ni tuama
T:pipe P:straighten_{OV} S:rm_S/cm man

The man will straighten the pipe.

AB2b

IV bale irədey ni tuama
T:house_[O'] P:build_{IV} S:rm_S/cm man

The man will build the house.

2. sawəl

AB1b

OV labuŋ sawələn ni tuama
T:shirt P:change_{OV} S:rm_S/cm man

The man will change his shirt.

AB3b

RV tətəboan sawələn ni tuama
T>window_[O'] P:change_{RV} S:rm_S/cm man

The man will replace the window.

(g) The stem *turu?* operates in AB2b with the meaning *show, indicate*. It also has the meaning *teach, instruct*. With the latter meaning *turu?* functions idiosyncratically in that it occurs in a set of constructions in which no other stems have been observed to operate. In this set of constructions both O' and R' are marked out of focus by Object relators. R' is focused by Object voice and O' by Instrument voice. The discovery of further stems functioning in the same way as *turu?* *teach* would warrant the recognition of a new clause battery.

turu? *show, indicate* (AB2b)

SV si tuama tumuru? lalan wia si oki?
T:cm man P:show_{SV} O:road R:rm_R cm child

IV lalan ituru? ni tuama wia si oki?
T:road_[O'] P:show_{IV} S:rm_S/cm man R:rm_R cm child

3. (from AB3)

SV si papa kumuli? sa?ut si oki?
 T:cm *father* P:*peel*_{SV} O:*banana*[O'] O:cm *child*[B']

IV si oki? ikuli? ni papa sa?ut
 T:cm *child*[B'] P:*peel*_{IV} S:rm_S/cm *father* O:*banana*[O']

Father will peel a banana for the child.

(b) Associative case does not have a distinct case marker but is always marked out of focus by Instrument relator. Although both A' and I' are marked by the same relator the difference between the two semantic roles is seen to be relevant to the description of Tondano clauses by the fact that A' cannot be focused. Thus a nominal marked by Instrument relator can only be topicalised if its case relationship is I'. The only known restriction on the occurrence of A' is that it cannot occur in AB1f. The following marking rule for A' can be added to any of the bases except that of AB1f.

marking rule:
$$\begin{array}{c} V \quad [\quad A' \quad] \\ \quad \quad \quad | \\ \quad \quad \quad \text{---} \quad \text{---} \end{array}$$

1. si tuama rumədey əmbale wo si ka?ampitəna
 T:cm *man* P:*build*_{SV} O:cm-*house* I:rm_I cm *friend-his*[A']

The man will build the house with his friend.

2. si asuta matokol wo si meon
 T:cm *dog-our* P:*fight*_{SV} I:rm_I cm *cat*[A']

Our dog is fighting with a cat.

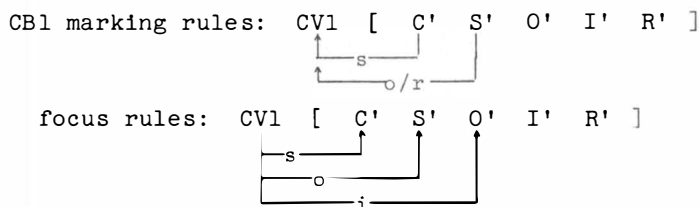
3.1.2. Causative Clauses

3.1.2.0. Causative clauses are constructions in which the Predicate verb is inflected for Causative aspect (see 8.1.1.2.1m) or for Petiteive aspect (see 8.1.1.2.1o). Most Causative clauses describe actions to which Causative case is relevant. This is the case of the participant (the causer) who, while not directly performing the action expressed by the stem, orders or requests the subject to perform the action or allows or waits for the action to occur. There are two batteries (CB4, CB5) which describe situations to which C' is not relevant. These batteries resemble Active constructions in their underlying cases and in the function of case markers but are formally identified as Causative by verbal inflection.

Causative clauses, apart from CB4 and CB5, are characterised by multiple shifts in case marking function. C' is always marked in the same way as S' in Active clauses. In lists of representative stems the English gloss always indicates the meaning of the stem plus Causative aspect.

3.1.2.1. *Causative Battery One*

CB1 has three versions, all of which contain O' in their base. Each verb stem operating in CB1 (with the exception of a very few in CB1c) operates in a version of AB1, AB2 and AB3 which contains O' in its base. The case marking features by which the Active batteries contrast are neutralised in CB1, which has the following case marking features: (i) Relators. Subject relator marks C', S' is marked by either Object or Referent relator.¹⁸ Other cases are marked out of focus in the standard way. (ii) Voice affixes. Subject voice focuses C', Object voice focuses S', Instrument voice focuses O'. Other cases are focused in the standard way.

3.1.2.1.1. *CB1 version a*

CB1a is the full version of the battery. In CB1a there appears to be a restriction on the co-occurrence of all post-Predicate nuclear tagmemes in any one clause. This restriction is apparently for stylistic rather than grammatical reasons as any two or three such phrases can occur together in the one clause. Constructions in the exemplary paradigm are restricted in a number of ways. I' and R' are only given in focus although they can also occur out of focus. S' is also omitted from some constructions. Object and Referent tagmemes (expressing S') are shown as alternatives within the same constructions of the exemplary paradigm rather than in separate constructions. Possible variants other than those given in the exemplary paradigm are shown in sections 4.1.2.4. and 4.1.2.5. The English translation for the paradigm expresses all the participants.

CB1a base: CV1a [C' S' O' I' R']

Representative CV1a verb stems:

keon	<i>cause to pull</i>	todo	<i>cause to push</i>
kuli'	<i>cause to peel</i>	tutuŋ	<i>cause to light</i>
oas	<i>cause to wash</i>	wewe	<i>cause to hit</i>

Exemplary paradigm:

SV	si mama	mapakəmēs	labuŋ	(wia) si okiʔ
	T:cm mother _[C']	P:cause-wash _{SV}	O:clothes _[O']	$\left. \begin{array}{l} \text{O:} \\ \text{R:rm}_R \end{array} \right\}$ cm child _[S']
OV	si okiʔ	papakəmēsən	ni mama	labuŋ
	T:cm child _[S']	P:cause-wash _{OV}	S:rm _S /cm mother _[C']	O:clothes _[O']
IV	labuŋ	ipapakəmēs	ni mama	(wia) si okiʔ
	T:clothes _[O']	P:cause-wash _{SV}	S:rm _S /cm mother _[C']	$\left. \begin{array}{l} \text{O:} \\ \text{R:rm}_R \end{array} \right\}$ cm child _[S']
IV	saboŋ	ipapakəmēs	ni mama	labuŋ
	T:soap _[I']	P:cause-wash _{IV}	S:rm _S /cm mother _[C']	O:clothes _[O']
RV	lələleʔan	papakəmēsən	ni mama	labuŋ
	T:washroom _[R']	P:cause-wash _{RV}	S:rm _S /cm mother _[C']	O:clothes _[O']

Mother will have the child wash the clothes with soap in the washroom.

3.1.2.1.2. CB1 version b

CB1b contrasts with CB1a by the absence of I' from its base. The sole function of Instrument voice in this version is to focus O'. Verb stems of class CV1b also operate in Active constructions lacking I' from their base. In the exemplary paradigm R' is only illustrated in focus although it can also occur out of focus.

CB1b base: CV1b [C' S' O' R']

Representative CV1b verb stems:

kirim	cause to send	seret	cause to put into (vehicle)
liŋa	cause to hear	waŋker	cause to sell
looʔ	show, cause to see	wareŋ	cause to return

Exemplary paradigm:

SV	si tauma	mapalooʔ	wuŋaŋ	(wia) si wəwene
	T:cm man _[C']	P:cause-see _{SV}	O:flower	$\left. \begin{array}{l} \text{O:} \\ \text{R:rm}_R \end{array} \right\}$ cm woman _[S']
OV	si wəwene	papalooʔon	ni tuama	wuŋaŋ
	T:cm woman _[S']	P:cause-see _{OV}	S:rm _S /cm man _[C']	O:flower
IV	wuŋaŋ	ipapalooʔ	ni tuama	(wia) si wəwene
	T:flower _[O']	P:cause-see _{IV}	S:rm _S /cm man _[C']	$\left. \begin{array}{l} \text{O:} \\ \text{R:rm}_R \end{array} \right\}$ cm woman _[S']

RV kintal papaloʔan ni tuama wuŋaŋ
 T:garden_[R'] P:cause-see_{RV} S:rm_S/cm man_[C'] O:flower

(wia) si wəwene
 $\left. \begin{array}{l} O: \\ R:rm_R \end{array} \right\}$ cm woman_[S']

The man will show the flowers to the woman in the garden.
 (lit: *The man will cause the woman to see the flowers in the garden.*)

3.1.2.1.3. CB1 version c

CB1c lacks both I' and R' from its base. Most verbs of stem class CV1c also occur in AV1c or AV3b although not all stems from those classes belong to CV1c. A few stems do not occur with the same meaning in Active classes but occur instead in NV4 (see 3.1.4.4.).

CB1c base: CV1c [C' S' O']

Representative CV1c verb stems:

gegey	cause to carry by hand	sawaŋ	cause to help
geŋaŋ	remind, cause to remember	suʔun	cause to carry on head
keret	cause to call	taʔu	tell, cause to know

Exemplary paradigm:

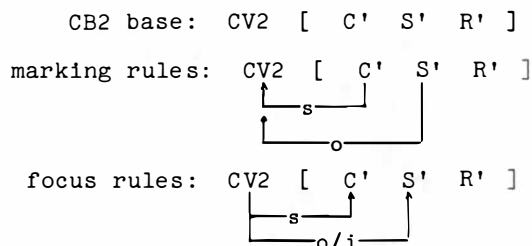
SV	si mama	məpetaʔu	nuʔmanən	(wia) se okiʔ
	T:cm mother _[C']	P:cause-know _{SV}	O:cm-story _[O']	$\left. \begin{array}{l} O: \\ R:rm_R \end{array} \right\}$ cm child _[S']
OV	se oki	pəpetaʔun	ni mama	nuʔmanən
	T:cm child _[S']	P:cause-know _{OV}	S:rm _S /cm mother _[C']	O:cm-story _[O']
IV	nuʔmanən	ipəpetaʔu	ni mama	(wia) se okiʔ
	T:cm-story _[O']	P:cause-know _{IV}	S:rm _S /cm mother _[C']	$\left. \begin{array}{l} O: \\ R:rm_R \end{array} \right\}$ cm child _[S']

Mother will tell the children the story. (lit: *Mother will cause the children to know the story.*)

3.1.2.2. Causative Battery Two

CB2, which has only one version, differs from CB1 by the obligatory absence of O' from its base and several differences in the function of case markers. The following are the case marking characteristics of this battery: (i) Relators. C' is marked by Subject relator, S' is marked by Object relator. (ii) Voice affixes. C' is focused by Subject voice, S' is focused by either Object voice or Instrument voice.

R' is marked in and out of focus in the standard way. There are thus four constructions in CB2, including two in which S' is focused. Stems operating in this battery also occur in either AB1d or AB1e. The difference between those two sets is neutralised in CB2, R' always being marked out of focus by Referent relator.



Representative CV2 verb stems:

kaluar	cause to leave	rubər	cause to sit
loŋkot	cause to climb (stairs)	seret	cause to get in (vehicle)
rədey	cause to stand	wareŋ	cause to go back

Exemplary paradigm:

SV	si mama	maparubər	si oki?	witu ŋkadera
	T:cm <i>mother</i> _[C']	P:cause-sit _{sv}	O:cm <i>child</i> _[S']	R:rm _r cm-chair
OV	si oki?	paparubərən	ni mama	witu ŋkadera
	T:cm <i>child</i> _[S']	P:cause-sit _{ov}	S:rm _s /cm <i>mother</i> _[C']	R:rm _r cm-chair
IV	si oki?	ipaparubər	ni mama	witu ŋkadera
	T:cm <i>child</i> _[S']	P:cause-sit _{iv}	S:rm _s /cm <i>mother</i> _[C']	R:rm _r cm-chair
RV	kadera	paparubərən	ni mama	si oki?
	T:chair _[R']	P:cause-sit _{rv}	S:rm _s /cm <i>mother</i> _[C']	O:cm <i>child</i> _[S']

Mother will get the child to sit in the chair.

3.1.2.3. Causative Battery Three

CB3 constructions lack Objective case but differ from CB2 in case marking. These features in CB3 are as follows: (i) Relators. C' is marked by Subject relator. S' is marked by Object or Referent relator. (ii) Voice affixes. Subject voice focuses C' and Referent voice focuses S'. R' is marked in and out of focus in the standard way.

Another difference between CB3 and other Causative batteries is the nature of the relationship of causer to the action. Whereas in CB1 and CB2 the causer is initially responsible for the action by getting the subject to perform it, in CB3 causer does not initiate the action but merely waits for or allows it to occur. There are two versions of

this battery.

CB3 marking rules: CV3 [C' S' R']

focus rules: CV3 [C' S' R']

3.1.2.3.1. CB3 version a

CB3a contains C' and S' in its base. It is also possible that R' occurs and that it can be focused but this possibility has not been tested. Most CV3a stems occur also as descriptives and constructions containing these indicate that the causer allows or waits for the subject to acquire, of its own accord, the state specified by the stem. Only one recorded stem, ra'rag, indicates an action but other such stems are expected to occur.

CB3a base: CV3a [C' S']

Representative CV3a verb stems:

gə'gər	allow to cool off	ra'rag	allow to fall
kunir	allow to grow yellow	rəbur	allow to grow fat
pəra	allow to dry	waŋko'	allow to become big

Exemplary paradigm:

SV si papa mapawowos (witu) ŋkapaya
 T:cm father_[C'] P:cause-ripe_{sv} { 0: } cm-papaw_[S']
 { R:rm_r }

RV kapaya papawowosan ni papa
 T:papaw_[S'] P:cause-ripe_{rv} S:rm_s/cm father_[C']

Father is allowing the papaws to ripen. or Father is leaving the papaws until they ripen.

3.1.2.3.2. CB3 version b

CB3b base contains only C' and R'. CB3b could alternatively be treated as a reduced version of CB1 but is assigned to the same battery as CB3a because of the similarity in the role of causer in the two sets. CB3b constructions indicate that the causer waits for the state or time specified by the verb stem. Only three stems are known to occur in CB3b, all indicating times of day.

CB3b base: CV3b [C' R']

CV3b verb stems:

oat *wait for daybreak*
 wəŋi *wait for nightfall*
 wəŋido *wait for evening*

Exemplary paradigm:

SV se tow mapaoat mana ntəmpok əŋkota
 T:cm person_[C'] P:cause-day_{SV} R:rm_R cm-end rm_{PO}/cm-town

RV təmpok əŋkota papaoatan ne tow
 T:end rm_{PO}/cm-town_[R'] P:cause-day_{RV} S:rm_S/cm person_[C']

The people will wait for daybreak on the outskirts of town.

3.1.2.4. Causative Battery Four

CB4 and CB5 are characterised by the absence of Causative case from their bases and the standard function performed by Subject case markers. Evidence that the participant marked by Subject case markers is subject and not causer is as follows: (i) In CB4a this participant can use an instrument to perform the action. In all other constructions in which an instrument occurs, including CB1a, it is employed by the subject, never by the causer. (ii) All stems known to operate in CB4b and in CB5 operate also in AB1c and AB3b respectively (although the reverse is not always the case) but constructions of these Causative sets have the same meanings as constructions from the corresponding Active sets and without the addition of an extra participant as occurs in CB1 and CB2.

These batteries are classified as Causative because they are formally identified as such by verbal inflection (see 3.1.0.12.). An alternative analysis would be to treat these as Active constructions in which the verb contains derivational affixation. Such an analysis would have the advantage of recognising the similarity in underlying structure of these constructions and Active constructions and would reduce the number of clause batteries. The classification of these clauses as Causative is made for the sake of consistency, clause class being defined by verbal inflection, although objections to the alternative are not strong.¹⁹

There are no shifts in the function of case markers in CB4.

CB4 marking rules: standard
 focus rules: standard

3.1.2.4.1. CB4 version a

CB4a is the full version of the battery. One feature is that R' can only occur out of focus. Focus rules are given to indicate the absence of Referent voice. CV4a verb stems also function as numbers (see 5.2.1.1.).

CB4a base: CV4a [S' O' I' R']

focus rules: CV4a [S' O' I']

Representative CV4a verb stems:

rua	<i>divide in two</i>	əpat	<i>divide in four</i>
təlu	<i>divide in three</i>	pulu' o rua	<i>divide in twelve</i>

Exemplary paradigm:

SV	si jon	maparua	kue	wo mpaagi'	witu meja
	T:cm Djon _[S']	P:cause-two _{SV}	O:cake	I:rm _I cm-knife	R:rm _R table
OV	kue	paparuan	ni jon	wo mpaagi'	witu meja
	T:cake _[O']	P:cause-two _{OV}	S:rm _S /cm Djon	I:rm _I cm-knife	R:rm _R table
IV	paagi'	ipaparua	ni jon	kue	witu meja
	T:knife _[I']	P:cause-two _{IV}	S:rm _S /cm Djon	O:cake	R:rm _R table

Djon will divide the cake in two with a knife on the table.

3.1.2.4.2. CB4 version b

CB4b contains S' and O' in its base. Only three stems, which also occur in AB1c, are known to operate in CB4b.

CB4b base: CV4b [S' O']

CV4b verb stems:

ide'	<i>frighten</i>	upi'	<i>anger</i>
iraq	<i>embarrass</i>		

Exemplary paradigm:

SV	si tuama	minapaupi'	niaku
	T:cm man _[S']	P:anger _{SV}	O:I
OV	niaku	pinapaupi'	ni tuama
	T:I _[O']	P:anger _{OV}	S:rm _S /cm man

The man made me angry.

3.1.2.5. *Causative Battery Five*

The absence of C' from CB5 is discussed in section 3.1.2.4. CB5 base contains S' and O' but the possibility of other cases occurring has not been tested. CB5 has the same case marking characteristics as AB3b and all known CV5 stems also operate in AB3b, although many AV3b stems do not operate in CB5. The only difference between constructions of the two sets is verbal inflection.

CB5 base: CV5 [S' O']
 marking rules: CV5 [S' O']
└───o/r───┘
 focus rules: CV5 [S' O']
└───r───┘

Representative CV5 verb stems:

arəm	starve, make hungry	riʔris	disgust
ideʔ	frighten ²⁰	sənsəʔ	bore, satiate
reʔo	make thirsty	wədu	tire, exhaust

Exemplary paradigm:

SV	mpəpaʔyaŋən yaʔi	mapawədu	(wia)	niaku
	T:cm-work	this _[S']	P:tire _{sv}	I
			$\left. \begin{array}{l} \text{O:} \\ \text{R:rm}_r \end{array} \right\}$	
RV	niaku	papawəduan	əmpəpaʔyaŋən yaʔi	
	T:I _[O']	P:tire _{rv}	S:rm _s /cm-work	this
	<i>This work makes me tired.</i>			

3.1.3. *Reciprocal Clauses*

3.1.3.0. Reciprocal clauses are constructions in which the verb is inflected for Reciprocal aspect (see 8.1.1.2.2.2.). These clauses specify that a reciprocal relationship holds between two participants in the action. The subject participant is simultaneously referent or object and the referent or object is simultaneously subject. Thus two cases are jointly held by the two participants in reciprocal relationship.

There are two batteries of Reciprocal clauses, each containing two constructions. In one construction of each battery the reciprocal participants are expressed in the one nominal, either by a plural noun or pronoun or by co-ordinated Noun phrases. This nominal obligatorily occurs as Topic, the two cases held by the reciprocal participants being jointly focused. In the second construction of each battery the par-

ticipants in reciprocal relationship are expressed by separate nominals. One of the participants is assigned to S' and this case is focused. The other participant is assigned to R' or O' (whichever is applicable) and this case occurs out of focus.

In each battery the two constructions are both Subject voice clauses and do not constitute a transformational set as do the various voice constructions in Active and Causative batteries. Instead, the two constructions are treated as different variants of the one battery. They both derive from the same clause base, containing the same cases and verb stem class, but they derive via different sets of mapping rules and sometimes require different translations. Since the two variants derive from the same base they have the same meaning (assuming the same lexical items) but represent differences in style and emphasis.

In each battery variant a is a Subject voice construction in which the reciprocal participants are jointly expressed by a nominal which occurs as Topic, both cases being simultaneously focused. Variant b is a Subject voice construction in which S' is focused and the other case involved in the reciprocal participant relationship occurs out of focus, marked by Instrument relator.

It could be argued that, in all Reciprocal constructions, the participant in reciprocal relationship with the subject holds Associative case. Evidence for this would be the fact that in variant b of each battery the case of this participant is marked in the same way as is A' in the Active clauses (see 3.1.1.6b). This approach would allow all Reciprocal constructions to be grouped in the one battery since the basic difference between the two batteries in the present analysis is that the reciprocal participant is assigned to O' in one and to R' in the other.

However, the analysis under which the reciprocal participant would hold Associative case is rejected because this participant cannot be identified with the associate in Active clauses. This can be shown by a comparison of Reciprocal clauses with corresponding Active clauses. Constructions (a) and (b) below are variant a and b respectively from Reciprocal Battery Two.

- a. si jon wo si ema məkəkiriman surat
Djon and Emma send letters to each other.
- b. si jon məkəkiriman surat wo si ema
Djon corresponds with Emma.

Each of the Reciprocal clauses above combines the meanings of the two Active clauses in the sentence (c).

c. si jon makirim surat wia si ema wo si ema makirim surat wia si jon
Djon sends letters to Emma and Emma sends letters to Djon.

It can be seen from (c) that the participants in reciprocal relationship in (a) and (b) jointly hold S' and R', and not S' and A'. Similar comparison with Active clauses shows that O' and not A' underlies constructions of Reciprocal Battery One.

Verb stems in the reciprocal classes occur also in Active verb stem classes. The English gloss provided with each representative stem refers to the meaning of the stem plus Reciprocal aspect.

3.1.3.1. Reciprocal Battery One

In RB1 the participants in reciprocal relationship jointly hold S' and O'. In variant a these cases are jointly focused by Subject voice, the two participants being expressed by one nominal which expounds Topic. In variant b the reciprocal participants are expressed by separate nominals. One participant is assigned to S', which is focused by Subject voice, and the other is assigned to O', which occurs out of focus and is marked by Instrument relator.

It is expected that R' and I' can occur with those stems with which they occur in Active clauses but they have not been recorded. Mapping rules are given separately for each variant. Marking rules are not applicable to variant a since both cases are simultaneously focused. This is indicated in the focus rule for variant a by a slash separating S' and O'.

RB1 base: RV1 [S' O']
 variant a
 focus rule: RV1 [S'/O']
 └──s──┘
 variant b
 marking rule: RV1 [O']
 └──i──┘
 focus rule: RV1 [S']

Representative RV1 verb stems:

kiki	<i>bite each other (e.o.)</i>	oas	<i>wash e.o.</i>
kuntey	<i>box, punch e.o.</i>	tubal	<i>collide, crash into e.o.</i>
loo?	<i>see, look at e.o.</i>	wewe	<i>hit e.o.</i>

Examples:

variant a

se asu rua məkəkikian
 T:cm dog two_[S',O'] P:bite-recip_{sv}
The two dogs are biting each other.

variant b

si asu waŋko' məkəkikian wo so asu oki'
 T:cm dog big[S'] P:bite- recip_{sv} I:rm_i cm dog little[O']
The big dog and the little dog are biting each other.

3.1.3.2. Reciprocal Battery Two

In RB2 the participants in reciprocal relationship jointly hold S' and R' cases. The two variants have the form outlined in section 3.1.3.0.

Objective case occurs with some stems but not with others, this being determined by the Active verb subclass to which each stem belongs. This is not regarded as sufficient reason for setting up two versions of RB2 since no construction occurs to focus O'. O' is placed in parentheses in the following statement to indicate that its occurrence depends on the particular verb stem. Examples are given to illustrate constructions in which Object tagmeme does and does not occur.

RB2 base: RV2 [S' R' (O')]

variant a

marking rule: RV2 [(O')]

focus rule: RV2 [S'/R']

variant b

marking rule: RV2 [(O') R']

focus rule: RV2 [S']

Representative RV2 verb stems:

to'or	<i>exchange with e.o.</i>	le'os	<i>be good to e.o., treat e.o. well</i>
kirim	<i>send to e.o.</i>	pənəs	<i>be silent toward e.o.</i>
tələs	<i>buy from e.o.</i>	reten	<i>be next to e.o., be adjacent</i>
wee	<i>give to e.o.</i>	ta'tas	<i>separate from e.o.</i>

Examples:

1. (with O')

variant a

nikey mətəto'oran kəkaanən
 T:we[S'/R'] P:exchange_{sv} O:food
We exchange food with each other.

variant b

niaku mətətəʔoran kəkaanən wo nisia
 T:I[S'] P:exchange_{SV} O:food I:rm_i he[R']
 I exchange food with him.

2. (without O')

variant b

ləpoməy minaretenan
 T:field-our[S'/R'] P:adjacent_{SV}
 Our fields are next to each other.

variant b

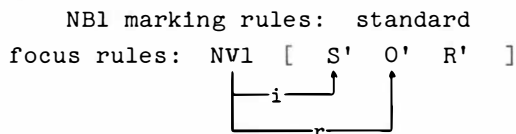
ləpokū minaretenan wo ləpona
 T:field-my[S'] P:adjacent_{SV} I:rm_i field-his[R']
 My field is next to his field.

3.1.4. Non-Volitional Clauses

3.1.4.0. Non-volitional clauses are constructions in which the Predicate verb is inflected for Non-volitional aspect (see 8.1.1.2.1q). These constructions usually report events which are accidental, unexpected or beyond the control of the subject. A number of shifts in the function of case markers occur in constructions of this class. One feature is the absence of Object voice; Objective case, when present, is always focused by some other voice.

3.1.4.1. Non-Volitional Battery One

NB1 is characterised by two shifts in function of voice affixes: S' is focused by Instrument voice and O' is focused by Referent voice. There are two versions, one containing O' in its base and one without O'. NB1 clauses indicate that the subject performs the action accidentally or has the ability, usually unexpectedly, to perform the action. The translation required depends to a large extent on context and the meaning of the verb stem (see 8.1.1.2.1q).



3.1.4.1.1. NB1 version a

NB1a has O' in its base and contains verb stems which also operate in versions of the first three Active batteries which have O' in their

bases. The case marking features by which the three Active batteries contrast are neutralised in NBla. Three constructions occur, an Instrument voice construction which focuses S', a Referent voice construction which focuses O' and another Referent voice construction which focuses R'. Some verbs can take I' while others cannot, but the difference is not significant as it is in Active batteries since I' cannot be focused. I' is parenthesised in the base statement given below to indicate that its occurrence depends on the particular verb stem and it is not illustrated in the exemplary paradigm.

NBla base: NVla [S' O' (I') R']

Representative NVla verb stems:

kətor	<i>cut</i>	tiboy	<i>seize</i>
kuwaŋ	<i>dehusk</i>	totor	<i>mention</i>
looʔ	<i>see</i>	tudeʔ	<i>spike</i>
sawut	<i>pluck</i>	waʔkəs	<i>tie</i>

Exemplary paradigm:

IV	si mama	naikəsawut	wuʔuk əsa	witu ŋkokoŋ
	T:cm <i>mother</i> _[S,]	P: <i>pluck</i> _{iv}	O: <i>hair one</i>	R:rm _r cm- <i>head</i>
RV	wuʔuk əsa	kinəsawutan	ni mama	witu ŋkokoŋ
	T: <i>hair one</i> _[O,]	P: <i>pluck</i> _{rv}	S:rm _s /cm <i>mother</i>	R:rm _r cm- <i>head</i>
RV	kokoŋ	kinəsawutan	ni mama	wuʔuk əsa
	T: <i>head</i> _[R,]	P: <i>pluck</i> _{rv}	S:rm _s /cm <i>mother</i>	O: <i>hair one</i>

Mother accidentally plucked out a hair from her head.

3.1.4.1.2. NB1 version b

NB1b base contains two cases, S' and R', each of which can be focused. English glosses of the representative stems refer to the meaning of stem plus Non-volitional inflection.

NB1b base: NV1b [S' R']

Representative NV1b verb stems:

ayo	<i>arrive</i>	reʔsok	<i>slip</i>
koʔləw	<i>capsize</i>	rətaʔ	<i>escape, break loose</i>
liʔlip	<i>swim</i>	təkəl	<i>fall asleep</i>
raʔrag	<i>fall</i>	wonor	<i>collapse</i>

Exemplary paradigm:

IV	si okiʔ	naikəraʔrag	witu naran
	T:cm <i>child</i> _[S,]	P: <i>fall</i> _{iv}	R:rm _r cm- <i>stairs</i>

RV naran kinəra?raɡan ni oki?
 T:cm-stairs_[R'] P:fall_{rv} S:rm_s/cm child
The child fell from the stairs.

With NV1b verbs indicating directional activity only context may make clear whether direction to or from the referent is meant. Thus the above constructions could also mean *The child fell onto the stairs*. The following constructions also illustrate this:

IV po?po? naikəra?raɡ wia si oki?
 T:coconut_[S'] P:fall_{iv} R:rm_r cm child

RV si oki? kinəra?raɡan əmpo?po?
 T:cm child_[R'] P:fall_{rv} S:rm_s/cm-coconut

These constructions mean either *The coconut fell on the child* or *The child dropped the coconut (accidentally)*. As this example shows, the participant interpreted as referent in Tondano can be the agent in English while the subject in Tondano is object in English. Stems operating in NB1b cannot occur with Objective case in Non-volitional constructions (i.e., they do not occur in NB1a). They can only occur with O' in Active clauses. For example (from AB2b):

SV si oki? rima?raɡ əmpo?po?
 T:cm child_[S'] P:drop_{sv} O:cm-coconut
The child dropped the coconut (deliberately).

3.1.4.2. Non-Volitional Battery Two

NB2 has only one version whose base contains S' and R'. Both cases are marked in and out of focus in the standard way. NB2 thus differs formally from the Standard Battery only in verbal inflection.

NB2 base: NV2 [S' R']
 marking rules: standard
 focus rules: standard

Representative NV2 verb stems:

apu	<i>be used up, depleted</i>	pəte?	<i>break</i>
kisi?	<i>tear, rip</i>	tow	<i>be born</i>
muali	<i>happen</i>	wələs	<i>wither</i>
pəra	<i>dry</i>	wonke	<i>wake up</i>

Exemplary paradigm:

SV mpirin minapəte? witu nawu
 T:cm-plate_[S'] P:break_{sv} R:rm_r cm-kitchen

RV nawu kinapəte'an əmpiriŋ
 T:cm-kitchen_[R'] P:break_{rv} S:rm_s/cm-plate
The plate broke in the kitchen.

Like NV1b stems, most NV2 stems function with O' in Active clauses but only occur without O' in Non-volitional constructions. Often, however, the referent in the Non-volitional construction is best translated as an agent into English, as in the following example:

SV labuŋ minakisi' wia si oki'
 T:shirt_[S'] P:tear_{sv} R:rm_r cm child

RV si oki' kinakisi'an labuŋ
 T:cm child_[R'] P:tear_{rv} S:shirt
The child tore his shirt (accidentally). (lit.: The shirt tore on the child.)

This can be contrasted with the Active construction in which the deliberately acting participant is interpreted as subject:

SV si oki' kimisi' labuŋ
 T:cm child_[S'] P:tear_{sv} O:shirt
The child tore the shirt (deliberately).

3.1.4.3. Non-Volitional Battery Three

NB3 base contains two cases, S' and R', and a class of verb stems which indicate emotional states. Many of these stems function with an object in AB1c and AB3b, in which the emotional state is carried over to the object. In NB3 the state is experienced by the subject in relation to another participant, the referent. R' is marked by Object relator out of focus and is focused by Instrument voice. S' is marked in the standard way.

NB3 base: NV3 [S' R']
 marking rules: NV3 [S' R']
 ↑ ↓
 └───o───┘
 focus rules: NV3 [S' R']
 ↑ ↓
 └───i───┘

Representative NV3 verb stems:

ide'	fear, be afraid	sənsə'	be bored, fed up
iraŋ	be shy, embarrassed	so'ə	dislike ²¹
pa'ar	like ²¹	upi'	be angry
ri'ris	hate	upus	love, pity

Exemplary paradigm:

SV si mama maupi? si oki?
 T:cm mother_[S'] P:angry_{SV} O:cm child_[R']

IV si iki? ikaupi? ni mama
 T:cm child_[R'] P:angry_{IV} S:rm_S/cm mother
Mother is angry at the child.

3.1.4.4. Non-Volitional Battery Four

There is only one version of this battery and only two cases, S' and O', are known to occur in the base. The only shift in function is that O' is focused by Referent voice. A very limited number of stems are known to operate in NB4. Some of these have irregular Subject voice affixation (see 8.1.1.1.3j and note 5 to that section).

NB4 base: NV4 [S' O']
 marking rules: standard
 focus rules: NV4 [S' O']
└───┬───┘
r

NV4 verb stems:

ato	get	ta?u	know (something)
gənaŋ	remember	sina?u	know (someone), be
liur	forget		acquainted with

Exemplary paradigm:

SV se tow mətə?u ŋaraŋku
 T:cm person_[S'] P:know_{SV} O:name-my

RV ŋaraŋku kətə?uan ne tow
 T:name-my_[O'] P:know_{RV} S:rm_S/cm person
The people know my name.

3.2. NON-VERBAL CLAUSES

3.2.0. Non-verbal clauses contrast with Verbal clauses primarily in that the exponent of their Predicate Centre (see 5.8.3.) is not inflected for tense, voice or aspect. Case relationships are not a feature of Non-verbal clauses and paradigms or batteries of constructions do not occur.

Only one group of Non-verbal clauses, the Topic-Comment constructions, are described here. The others are treated in section 6.2. Topic-Comment clauses contain two nuclear tagmemes; a Topic, which is something

known, and a Predicate, which is a comment on the Topic, introducing new information to the discussion. Topic-Comment clauses are subclassified according to the exponent of the Predicate Centre. This is one of a number of non-verbal phrases, these being described in Chapter Five. The Topic-Comment subclasses are listed individually here because the subclass determines the relative order of any two Topic-Comment clauses embedded in the same Noun phrase (see 5.4.5.).

The formal statements for the various Topic-Comment clauses can be summarised:

$$\text{XC1} \longrightarrow \text{T} + \text{P}_x$$

where the symbol X represents any sub-type of Topic-Comment clause and is transferred as a subscript to the Predicate label. Thus the statement for the Descriptive clause is

$$\text{DesC1} \longrightarrow \text{T} + \text{P}_{\text{des}}$$

3.2.1. Descriptive Clauses

A Descriptive clause (DesC1) has a Predicate Centre expounded by a Descriptive phrase (see 5.5.):

1. si papaku si tu'amow *My father is old.*
T:cm father-my P:tm old-Mod
2. bale iti'i mbaŋko' *That house is big.*
T:house that P:tm-big
3. nisia si rəbur *He is fat.*
T:he P:tm fat

3.2.2. Numeral Clauses

A Numeral clause (NumC1) has a Predicate Centre expounded by a Numeral phrase (see 5.2.):

1. se meŋku se rua
T:cm cat-my P:tm two
I have two cats. (lit.: My cats are two.)
2. noto mae waki wenaŋ nəpat
T:cm-car go_{SV} rm_P Manado P:tm-four
There are four cars going to Manado. (lit.: The cars going to Manado are four.)
3. sa'ut ya'i ndua ŋa'aka
T:banana this P:tm-two stems
There are two banana trees here. (lit.: These bananas are two stems.)

A special sub-type of NumCl is one in which the Numeral phrase contains a subclass 3 measure noun. This sub-type occurs only in the Base One slot of a Sequential sentence (see 7.2.6.3a) or occurs nominalised in a clause level Time slot (see 4.2.3c). It is thus not by definition an Independent clause as are all other Basic clauses.

3.2.3. Similitude Clauses

The Similitude clause (SimCl) has a Predicate Centre expounded by a Similitude phrase (see 5.6.):

1. lodeyna nda?i tanu lodeyku
T:boat-his P:tm-neg like boat-my
His boat is not like my boat.
2. se pior tanu ntətədean əŋkasəla
T:cm pike P:like cm-pillow cm-bigness
The pike (fish) is as big as a pillow.

3.2.4. Referential Clauses

A Referential clause (RefCl) has a Predicate Centre expounded by a Referent Relator-Axis phrase (see 5.1.4.) or a referent demonstrative (see 4.1.1.):

1. se tow se wiamow *The people are already here.*
T:cm person P:tm here-Mod
2. se oki? se witu mbale *The children are in the house.*
T:cm child P:tm rm_r cm-house
3. mpasar witu ntoudano mbitu ŋkaunəran əmbanua
T:cm-market rm_r cm-Tondano P:tm-rm_r cm-centre rm_{po}/cm-town
The market in Tondano is in the centre of the town.

3.2.5. Noun Clauses

A Noun clause (NCl) has a Predicate Centre expounded by a Noun phrase (see 5.4. and 5.8.3.). The Head of this Noun phrase appears to be restricted in exponence to common and proper nouns:²²

1. nisia si leksi *He is Lexie.*
T:he P:tm Lexie
2. nisia si asuku *That is my dog.*
T:he P:tm dog-my
3. ntoudano mbanua waŋko? *Tondano is a big town.*
T:cm-Tondano P:tm-village big

CHAPTER FOUR

4. CLAUSE LEVEL TAGMEMES - EXPONENCE AND ORDERING

4.0. This chapter describes the exponence of tagmemes in Basic clauses and their ordering within the clause. Any clause level tagmeme which is obligatory to a construction or which expresses a case relationship is called a nuclear tagmeme. All other tagmemes are peripheral. Nuclear tagmemes are described in section 4.1. and peripheral tagmemes in section 4.2.

4.1. NUCLEAR TAGMEMES

4.1.0. Not all tagmemes described in this section occur in every Basic clause type. For instance, Topic and Predicate are the only nuclear tagmemes occurring in Topic-Comment clauses. Nevertheless, it is convenient to discuss all these tagmemes together. The tagmemes nuclear to each clause type are listed in the individual descriptions of the clauses in Chapter Three.

4.1.1. Nuclear Tagmeme Exponence

The Predicate tagmeme (P) is expounded by a Predicate phrase (Pp). The symbol P is subscripted with the label for the clause type within which it functions. This subscript label is then transferred to the exponential symbol. Thus a Descriptive Predicate (P_{des}), functioning in a Descriptive clause, is expounded by a Descriptive Predicate phrase (Pp_{des}). In the summary of clause exponents below the subscript symbol x represents any such transferred label. The structure of Predicate phrases is described in section 5.8.

Topic is expounded by a Noun phrase or a Pronoun phrase. The Head exponent of the Pronoun phrase is either a subclass 1 pronoun or a

subclass 2 animate pronoun (see 5.3.). In a Verbal clause where O' is in focus, Topic is alternatively expounded by a Quotation (Qt) or an Object Complement (Com_O). In a Verbal clause where R' is in focus it is alternatively expounded by a referent demonstrative (dem_r). Topic exponence is further mentioned in section 4.1.3.2.

Subject, Object, Instrument and Referent tagmemes are expounded by Relator-Axis (R-A) constructions. Since the internal structure of a Relator-Axis phrase varies according to the grammatical function of the tagmeme it expounds, the symbol R-A must be subscripted with the appropriate function label. Thus S: R-A_S means that Subject is expounded by a Subject Relator-Axis phrase. The internal structure of R-A phrases is described in section 5.1.

Object tagmeme is alternatively expounded by an Object Complement (see 5.7.) or a Quotation if it is correlated with Objective case. Qt indicates direct speech:

1. si jon si limila?la wia se tow laape?mi
 T:(cm *Djon*) P:(tm *say*_{SV})-Mod R:(rm_r cm *person*) O:(P:*fetch*_{IV})

rano saŋagelas aku
 O:*water one-glass* T:I)
Djon said to the people "Fetch me a glass of water".

2. si leksi limiwagela sey re?en ko
 T:(cm *Lexie*) P:(*ask*_{SV})-Mod O:(*who* sof *you*)

Lexie asked "Who are you?".

Referent is alternatively expounded by a set of referent demonstratives. These demonstratives, which indicate three degrees of distance, can expound Topic or Referent tagmemes if these correlate with Referential case. They are:

wia, wia?i	here
witu, wəti?ila	there (near)
mana, mənə?imae	there (far)

3. si tuama maana? wia?i
 T:(cm *man*) P:(*live*_{SV}) R:(*here*)

The man lives here.

4. mənə?imae paso?so?an ən təberan
 T:(*over there*) P:(*flow*_{RV}) S:(rm_S/cm-*river*)

The river flows over there.

The exponence of clause level nuclear tagmemes is summarised:

$$\begin{array}{l}
 P_x : Pp_x \\
 \\
 T : \left[\begin{array}{l} \{N, Pr\} \\ Qt \\ Com_o \} \\ \{N, Pr\} \\ dem_r \\ N, Pr \end{array} \right] / \left[\begin{array}{l} T:--[O'] \\ T:--[R'] \\ elsewhere \end{array} \right] \\
 \\
 - Pr \longrightarrow Hpr (+...) \\
 Hpr : pr_1, pr_2 (animate)
 \end{array}$$

S : R-A_s

$$O : \left[\begin{array}{l} \{R-A_o\} \\ Qt \\ Com_o \} \\ R-A_o \end{array} \right] / \left[\begin{array}{l} O:--[O'] \\ elsewhere \end{array} \right]$$

I : R-A_i

$$R : \left[\begin{array}{l} \{R-A_r\} \\ dem_r \} \\ R-A_r \end{array} \right] / \left[\begin{array}{l} R:--[R'] \\ elsewhere \end{array} \right]$$

4.1.2. Nuclear Tagmeme Ordering

4.1.2.0. In a Basic clause Topic may precede Predicate, with exceptions mentioned below. All other nuclear tagmemes obligatorily follow Predicate. The most common ordering of nuclear tagmemes is summarised:

$$T +P +S +O +I +R$$

Any change in the ordering of nuclear tagmemes in a Basic clause is described according to a permutation rule.

4.1.2.1. Topic Permutation

Topic may occur after Predicate in any Verbal or non-Verbal clause. The permutation is obligatory if T is expounded by Qt or Com_o, otherwise it is optional.

In post-Predicate position Topic obligatorily follows Subject and Object and occurs freely either before or after Instrument and Referent.

This statement is subject to the condition that any tagmeme, whether Topic or Object, expounded by Qt or Com₀ always follows all other nuclear tagmemes.

Topic Permutation Rule:

$$T +P +X +Y$$

$$\Rightarrow P +X \left\{ \begin{array}{l} +Y +T \\ +T +Y \end{array} \right\}$$

X = Subject, Object

Y = any other nuclear tagmeme or tagmemes

conditions: Any tagmeme expounded by Qt or

Com₀ follows all other tagmemes. The per-

mutation is optional if T: N, Pr and obligatory

if T: Qt, Com₀.

Examples (1) to (6) below illustrate Basic clauses before and after Topic permutation while (7) to (9) illustrate clauses in which Topic permutation is obligatory:

1. ləloŋkotan niwareŋkula witu si kaloku
T:(*ladder*) P:(tm-return_{1V})-S:(I) Mod R:(rm_r cm *friend-my*)

⇒ niwareŋkula witu si kaloku ləloŋkotan
T:(tm-return_{1V})-S:(I)-Mod R:(rm_r cm *friend-my*) T:(*ladder*)

or niwareŋkula ləloŋkotan witu si kaloku
P:(tm-return_{1V})-S:(I)-Mod T:(*ladder*) R:(rm_r cm *friend-my*)
I will return the ladder to my friend.

2. se wəwene se pinapalo'okula mbuŋaŋ
T:(cm *woman*) P:(tm-cause-see_{OV})-S:(I)-Mod O:(cm-*flower*)

⇒ se pinapalo'okula mbuŋaŋ se wəwene
P:(tm-cause-see_{OV})-S:(I)-Mod O:(cm-*flower*) T:(cm *woman*)
I showed the flowers to the women.

3. ŋarana ndai? kəta'uantə
T:(name-*his*) P:(tm-neg know_{rV})-S:(*we*)

⇒ ndai? kəta'uantə ŋarana
P:(tm-neg know_{rV})-S:(*we*) T:(name-*his*)
We don't know his name.

4. si leksi limiwagəla sey re'en ko
T:(cm *Lexie*) P:(ask_{SV})-Mod O:(*who* sof *you*)

- ⇒ limiwagela si leksi sey re'en ko
 P:(ask_{SV})-Mod T:(cm Lexie) O:(who sof you)
 Lexie asked "Who are you?".
5. se kasuat ne we'wek se rai' kasa lakər
 T:(cm species rm_{PO}/cm duck) P:(tm neg very many)
- ⇒ se rai' kasa lakər se kasuat ne we'wek
 P:(tm neg very many) T:(cm species rm_{PO}/cm duck)
 There aren't many species of ducks.
6. si ka'ampitəku si rai' guru
 T:(cm friend-my) P:(tm neg teacher)
- ⇒ si rai' guru si ka'ampitəku
 P:(tm neg teacher) T:(cm friend-my)
 My friend isn't a teacher.
7. ndai' kəta'uaŋku sa sapa ŋarana
 P:(tm-neg know_{RV})-S:(I) T:(cmz what name-his)
 I don't know what his name is.
8. naipəpəta'ula ni ema wia se tu'ana
 P:(cause-know_{IV})-Mod S:(rm_S/cm Emma) R:(rm_R cm parent-her)
 nu si jon si rara'an
 T:(cmz T:cm Djon P:tm sick)
 Emma told her parents that Djon was sick.
9. nailila'la ni tuama wareŋola lo'lo' ya'i
 P:(say_{IV})-Mod S:(rm_S/cm man) T:(P:return_{IV}-Mod T:basket this)
 The man said "Return this basket!".

Structural ambiguity may result from Topic permutation in a Noun clause. The clause *si towo si tuama* can be analysed as Topic plus Predicate, as in (10a), or Predicate plus Topic, as in (10b):

- 10a. si towo si tuama The liar is a man.
 T:(cm liar) P:(tm man)
- b. si towo si tuama The man is a liar.
 P:(tm liar) T:(cm man)

Usually Predicate is identified by the presence of such tagmemes as Negative, as in (6) above, or Mode. In all examples of Noun clauses recorded in texts the identity of nuclear tagmemes is clearly established either by formal features or by context. Topic permutation is

rare in Noun clauses.

A Verbal clause with permuted Topic may be ambiguous with a Noun clause, as in the following example:

11a. si timəkəl si kaʔampitəku
 P:(tm sleep_{SV}) T:(cm friend-my)
My friend is sleeping.

b. si timəkəl si kaʔampitəku
 T:(cm sleep_{SV}) P:(tm friend-my)
The one sleeping is my friend.

Here also, context and such features as phrase expansion usually resolve any ambiguity.¹

4.1.2.2. Subject-Object Permutation

Although Subject usually precedes Object they can sometimes exchange positions. However, the sequence O +S is rare and can only occur under the conditions specified by the following rule:

Subject-Object Permutation Rule (optional):

T +P +S +O (+X)
 ⇒ T +P +O +S (+X)

conditions:

S does not contain a Pronoun phrase.

O is not expounded by Qt or Com_O.

12. si tole okiʔ winean ni tuama ŋkayu
 T:(cm boy) P:(give_{RV}) S:(rm_S/cm man) O:(cm-wood)

⇒ si tole okiʔ winean əŋkayu ni tuama
 T:(cm boy) P:(give_{RV}) O:(cm-wood) S:(rm_S/cm man)

The boy was given the wood by a man.

4.1.2.3. Object Ordering

Object tagmeme obligatorily follows all other nuclear tagmemes if expounded by Qt or Com_O. This rule applies to all clause types and overrides all other ordering rules.

Object Permutation Rule (obligatory):

(T) +P (+S) +O +X
 ⇒ (T) +P (+S) +X +O

condition:

$$O: \left\{ \begin{array}{l} Qt \\ Com_o \end{array} \right\}$$

X = any other nuclear tagmeme or tagmemes.

13. se minəpəta'ula wia si raja se pasukan
 P:(tm *cause-know*_{SV})-Mod R:(rm_r cm *king*) T:(cm *soldier*)
 nu si kuda si rai'mow wia
 O:(cmz T:cm *horse* P:tm *neg-mod here*)
The soldiers have told the king that the horse is no longer here.

4.1.2.4. Sequences Of Object Tagmemes

In some clause constructions a sequence of two Object tagmemes is possible. In such a sequence in constructions of Active Batteries One, Two and Three the first Object expresses O' and the second one expresses B'. This is summarised:

$$AB1-3: T +P (+S) +O_{[O']} +O_{[B']} +X$$

Examples of this sequence are given in section 3.1.1.6a.

As mentioned in section 3.1.2.1., S' is expressed by either Object or Referent in Causative Battery One. An Object tagmeme expressing S' can either precede or follow an Object tagmeme expressing O'. Referent must follow Object. A number of variations thus occur, but in each case the ordering of tagmemes given in section 4.1.2.0. is unchanged. The variants are summarised:

$$CB1: i \quad T +P (+S) +O_{[O']} +R_{[S']} (+X)$$

$$ii \quad T +P (+S) +O_{[O']} +O_{[S']} (+X)$$

$$iii \quad T +P (+S) +O_{[S']} +O_{[O']} (+X)$$

These three variants are illustrated in (14):

- 14a. si mama mapakəməs labuŋ wia si oki'
 T:(cm *mother*) P:(*cause-wash*_{SV}) O:(*clothes*)_[O'] R:(rm_r cm *child*)_[S']

- b. si mama mapakəməs labuŋ si oki'
 T:(cm *mother*) P:(*cause-wash*_{SV}) O:(*clothes*)_[O'] O:(cm *child*)_[S']

- c. si mama mapakəməs si oki' labuŋ
 T:(cm *mother*) P:(*cause-wash*_{SV}) O:(cm *child*)_[S'] O:(*clothes*)_[O']

Mother will get the child to wash the clothes.

4.1.2.5. Sequences Of Referent Tagmemes

If a sequence of Referents occurs in Active Battery Three the first expresses O' and the second expresses R'. This is summarised:

AB3: T +P (+S) +R_[O'] +R_[R']

15. si tuama timiboy wia si kuda witu lalan
 T:(cm man) P:(catch_{SV}) R:(rm_R cm horse)_[O'] R:(rm_R road)_[R']
The man caught the horse on the road.

When a sequence of Referent tagmemes occurs in Causative Battery One the first expresses S' and the second expresses R':

CB1: T +P (+X) +R_[S'] +R_[R']

16. si mapakemes wia si oki? witu lelale'an
 P:(tm cause-wash_{SV}) R:(rm_R cm child)_[S'] R:(rm_R wash room)_[R']
She will get the child to do the laundry in the wash room.

A sequence of Referent tagmemes has not been observed where each contains a pronoun or noun referring to a person. In such a situation the participant holding S' is apparently always expressed in an Object tagmeme:

17. ku mapalobo? nisia baal wia si oki?
 P:(tm cause-throw_{SV}) O:(he)_[S'] O:(ball)_[O'] R:(rm_R cm child)_[R']
I will get him to throw the ball to the child.

4.1.2.6. Instrument And Associative Cases

A sequence of two Instrument tagmemes cannot occur in a clause. Consequently I' and A' cannot be expressed in the same clause.

- 17a. si tuama makeon roda wo ntali
 T:(cm man) P:(pull_{SV}) O:(cart) I:(rm_I cm-ropes)_[I']
The man is pulling the cart with a rope.
- b. si tuama makeon roda wo si ka'ampitena
 T:(cm man) P:(pull_{SV}) O:(cart) I:(rm_I cm friend-his)_[A']
The man is pulling the cart with his friend.

When it is desired to refer to both an instrument and an associate one of these must be expressed in a Conjoined clause (see 6.1.1.).

4.1.3. Optionality Of Nuclear Tagmemes

4.1.3.0. It is very rare for all nuclear tagmemes to co-occur in a clause in unelicited material. Although certain cases may be obligatory

to a particular action they do not necessarily receive linguistic expression in a clause describing that action. This section deals with the conditions under which nuclear tagmemes may be omitted from Basic clauses. Omission of non-Topic tagmemes is described first, then omission of Topic.

4.1.3.1. Omission Of Non-Topic Tagmemes

Non-Topic tagmemes, with the exception of Predicate, are frequently omitted when the context within which the clause occurs renders their inclusion redundant. In each of the following examples a participant is left unexpressed in the second clause, having been identified in the preceding clause. The omitted tagmeme is placed in brackets in the English translation.

1. si woley si mənəaŋaŋan saʔut si waʔu
 T:(cm monkey) P:(tm eat_{SV}) O:(banana) T:(cm tortoise)
 si raiʔkan weanami
 P:(tm neg-mod give_{RV})-S:(he)-Mod
*Monkey kept on eating the bananas. He wouldn't give tortoise
 [any bananas].*

2. ka ku tinamatow witu nsəkola raʔimow
 (because P:(tm pass_{OV})-Mod R:(rm_R cm-school)) P:(neg-mod
 ketaʔuan sa wisa laʔaŋku
 know_{RV}) T:(cmZ where go_{RV}-I)
*Because I've passed (lit.: been passed) at school [I] don't
 know where I'll go.*

Although a participant may not be identifiable from context, the tagmeme in which it would be expressed may be omitted if the participant is unknown or if the situation does not demand its identification. Such omission is usual with tagmemes expressing I' and R'. Although the identification of object is usually required there is a group of verbs which lacks this requirement. These verbs correspond to the English pseudo-intransitive verbs² and include *kaan eat*, *kooʔ drink*, *wilit sew*, *lutuʔ cook*, *kəməs wash* and *kantar sing*.

Tagmemes expressing S' can be omitted as in the following examples:

3. si kudana rinonkitow
 T:(cm horse-his) P:(steal_{OV})-Mod
His horse has been stolen.

4. embale siniwoite witu natas endano
 T:(cm-house) P:(make_{OV})-Mod R:(rm_R cm-above rm_{PO}/cm-water)

The houses were built above the water.

5. ku mapapæte? tabelan
 P:(tm cause-cut_{SV}) O:(bamboo)

I'm having the bamboo cut down (by someone).

When the non-Topic tagmeme expressing S' is omitted from a construction of Causative Battery One the construction may be ambiguous with a Causative Battery Two construction of the same voice. In the following example (a) is a CBlb construction in which O' is focused and S' is not expressed and (b) is a CB2 construction in which S' is focused:

- 6a. si oki? ipapaseret ni mama witu noto
 T:(cm child)_[O'] P:(cause-mount_{IV}) S:(rm_S/cm mother) R:(rm_R cm-car)

Mother has the child put in the car (by someone).

- 6b. si oki? ipapaseret ni mama witu noto
 T:(cm child)_[S'] P:(cause-mount_{IV}) S:(rm_S/cm mother) R:(rm_R cm-car)

Mother has the child get into the car.

4.1.3.2. Omission Of Topic

Topic may be omitted when its identity is established from the context within which the clause occurs. When Topic is omitted it is always translatable by a pronoun, the person or thing referred to being clear from context (usually having been expressed in a preceding clause). Even when Topic is omitted some information is usually given within the clause as to its identity by the topic marker (tm) which occurs in the Predicate phrase (the topic marker specifies the class of Topic noun and, if it is animate, its person and number - see 5.8.1.). In each of the following examples Topic is absent from the second clause:

7. ndano ndai? pasu? nanarite
 T:(cm-water) P:(tm-neg hot) P:(tm-warm)-Mod

The water isn't hot. It's just warm.

8. tætwel ni tuarinea rai?mow witu
 T:(wing rm_{PO}/cm sister-their) P:(neg-mod there)

niedomow ni makauma
 P:(tm-take_{OV})-Mod S:(rm_S/cm garden-owner)

The wings of their younger sister were no longer there. They had been taken by the owner of the gardens.

9. se tu'ana se kasamow tu'a se ropemow
 T:(cm parent-her) P:(tm very-mod old) P:(tm toothless)-Mod
Her parents are very old. They're already toothless.

In each of the above examples the topic marker, in the absence of Topic, is translated into English with an unstressed subject pronoun.

When Topic in a Basic clause is expounded by a pronoun it is always emphatic as, for instance, when a new participant is referred to or when the Topics of successive clauses refer to different persons. In the English translation of such a clause the subject pronoun is stressed. A Topic pronoun can only refer to an animate participant; no pronoun can substitute for an inanimate noun in the Topic of a Basic clause. In the following examples each Topic contains a pronoun. The English translations contain stressed subject pronouns and can be compared with the translations of (7) to (9) above which contain unstressed subject pronouns:

10. niaku ku mapa'yaŋ ta'an nisia si timəkəlite
 T:(I) P:(tm work_{sv}) but T:(he) P:(tm sleep)-Mod
I am working but he is just sleeping.
11. key nu tu'amu key tanu mbanaaŋ wo nikoo
 T:(we rm_{int} parent-your) P:(tm like cm-thread) and T:(you)
 ko tanu mbəwilit
 p:(tm like cm-needle)
We, your parents, are like the thread and you are like the needle.

4.2. PERIPHERAL TAGMEMES

4.2.0. The peripheral clause level tagmemes are Mode (Mod), Manner (M), Time (Te) and Adverb (Adv). In addition, Referent is peripheral in non-Verbal clauses. Exponence and ordering are described separately for each tagmeme.

4.2.1. Mode

Although Mode is a clause level tagmeme it is expounded by a set of modals which occur as bound forms (clitics) within the Predicate phrase. Since modals are bound morphemes they require the same sort of description as do other bound morphemes and are consequently described in the chapter on morphology (see 8.2.2.).

4.2.2. Manner

Manner tagmeme is expounded by a Descriptive phrase (see 5.5.) or a

Simile phrase (see 5.6.). Manner follows nuclear tagmemes except that it can either precede or follow post-Predicate Topic:

1. si oki? minewe si asu talous ente?
T:(cm child) P:(hit_{SV}) O:(cm dog) M:(too hard)
The child hit the dog too hard.
2. si maana? witu si karel tanu se sakey
P:(tm live_{SV}) R:(there) T:(cm Karel) M:(like cm guest)
Karel lives there as a guest.
3. si minakemow entətewel tanu se malaikat si karel
P:(tm wear_{SV})-Mod O:(cm-wing) M:(like cm angel) T:(cm Karel)
Karel was wearing wings like an angel.

4.2.3. Time

Time tagmeme is expounded by a temporal Noun phrase or a temporal noun. Temporal Noun phrases include Noun phrases which have the following Head exponents:

(a) The quantitative noun *susur every* (see 5.4.2.):

1. susur əmbəŋi every night
H:(every) Po:(rm_{PO}/cm-night)
- (b) A noun indicating a unit of time:
2. nədo iti?i (on) that day
cm-H:(day) Dem:(that)
3. ta'un tumodoŋ next year
H:(year) Qu:(follow_{SV})
4. toro ni?itu (at) that time
H:(time) Dem:(that)

(c) A Nominalised Numeral clause containing a subclass 3 measure noun (see 5.2.2.):

5. saŋasumədət (for) one month
H:(one-months)
6. rua ŋəta'un liməŋkoy two years ago
H:(two years) Qu:(pass_{SV})

Temporal nouns include the following:

kaawi'in	yesterday	suməkasa	day before yesterday
tarekan	today, now	ŋasusa	day after tomorrow
wo'odo	tomorrow	kawəŋi	last night

The position of Te within the clause is quite free. Usually it occupies the first position in the clause but may also occur in most other positions. It is one of the few tagmemes which can occur between Topic and Predicate:

- 7a. susur nədo si tuama si mapa'yaŋ witu ləpo
 Te:(*every day*) T:(cm man) P:(tm work_{SV}) R:(rm_R field)
- b. si tuama susur nədo si mapa'yaŋ witu ləpo
 T:(cm man) Te:(*every day*) P:(tm work_{SV}) R:(rm_R field)
- c. si tuama si mapa'yaŋ susur nədo witu ləpo
 T:(cm man) P:(tm work_{SV}) Te:(*every day*) R:(rm_R field)
- d. si tuama si mapa'yaŋ witu ləpo susur nədo
 T:(cm man) P:(tm work_{SV}) R:(rm_R field) Te:(*every day*)
- The man works in the field every day.*

4.2.4. Adverb

Adverbs include the following groups:

- (a) Adverbs expressing doubt or certainty, including:

ulit	<i>really, truly</i>	karəŋan	<i>definitely, must</i>
tu'u	<i>certainly, definitely</i>	wona'	<i>perhaps, maybe</i>

- (b) Adverbs expressing frequency, including:

ikakurala	<i>sometimes</i>	kəlakəran	<i>usually, mostly</i>
mokioki'mi	<i>frequently</i>	makakəkasa	<i>rarely</i>

- (c) Adverbs expressing temporal relationship, including:

kətare	<i>at first</i>	kamurian	<i>afterwards</i>
kaməmurian	<i>finally, eventually</i>	teakanŋan	<i>immediately</i>

(d) Adverbs derived from numeral stems, including ordinals meaning *first, second, third etc.* (see 5.2.1.1.), adverbs meaning *for the first time, for the second time etc.* (see 8.1.2biii), adverbs meaning *one at a time, two at a time etc.* (see 8.1.2h) and those meaning *in a group of one, in a group of two, in a group of three etc.* (see 8.1.2j).

Adverbs of the above groups have fairly free ordering within the clause and can also occur within the Predicate phrase (see 5.8.4. for examples). However, they cannot occur between Predicate and Subject or Object:

- 1a. ikakurala si tuama si matuluŋ niaku
 Adv:(*sometimes*) T:(cm man) P:(tm help_{SV}) O:(I)

b. si tuama ikakurala si matuluḡ niaku
 T:(cm man) Adv:(sometimes) P:(tm help_{SV}) O:(I)

c. si tuama si matuluḡ niaku ikakurala
 T:(cm man) P:(tm help_{SV}) O:(I) Adv:(sometimes)

The man sometimes helps me.

(e) Adverbs which occur within the Predicate phrase. These are tarevtae *just, only now* and weitow, tawi and ta'ar all meaning *almost*. These are confined to the Predicate phrase in Basic clauses (see 5.8.4.) but optionally precede Predicate in Pro-Topic clauses (see 6.1.4.).

(f) Adverbs which immediately follow Predicate:

kasi again (to repeat or kankasi also
 continue action)

sumoup again (to resume former waya all, entirely
 state or position)

2. wo'odo si tumuluḡ kasi niaku
 Te:(tomorrow) P:(tm help_{SV}) Adv:(again) O:(I)

Tomorrow he'll help me again.

3. se tow məkaan kaan iti'i se məpate waya
 T:(cm person eat_{SV} rice that) P:(tm die_{SV}) Adv:(all)

The people who eat that rice all die.

(g) The adverb kouman translates *on the other hand* or *meanwhile* and is used when conversation turns from one participant to another. It immediately follows Topic or Predicate, whichever occurs first:

4. se pasukan kouman se wia li'lik lalan
 T:(cm soldier) Adv:(meanwhile) P:(tm rm_P edge road)
The soldiers, meanwhile, were at the side of the road.

5. se məkaan kouman se siow bidadari
 P:(tm eat_{SV}) Adv:(meanwhile) T:(cm nine nymph)

The nine nymphs, on the other hand, were eating dinner.

(h) Intensive adverbs. These do not occur on the clause level but are mentioned here for completeness. They occur in Descriptive phrases (see 5.5.) and in Verb phrases (see 5.9.).

4.2.5. Referent

Referent is a peripheral tagmeme in non-Verbal clauses and occurs before or after the nuclear tagmemes. The following example illustrates

Referent in an Existential clause (see 6.2.1.):

1a. wia ntoudano bəwean pasar waŋko?
 R:(rm_r cm-Tondano) P:(ex) Com:(*market big*)

In Tondano there is a big market.

b. bəwean pasar waŋko? wia ntoudano
 P:(ex) Com:(*market big*) R:(rm_r cm-Tondano)

There is a big market in Tondano.

CHAPTER FIVE

5. PHRASES

5.0. This chapter describes the structure of phrases functioning at the clause level and of those functioning at a lower level, i.e., expounding slots within phrases. Co-ordination of phrases is also mentioned (see 5.10.). Phrase types occurring only within clause types not yet described are dealt with in Chapter Six.

5.1. RELATOR-AXIS PHRASES

5.1.0. Here are described Relator-Axis (R-A) phrases functioning at the clause level. R-A phrases functioning only at other levels are described in the appropriate sections of this chapter.

R-A phrases are constructions composed of a Relator slot (Rel) and an Axis (Ax). Rel is expounded by a relator (rm) and Ax is expounded by a Noun phrase or Pronoun phrase.

The symbol Rel is subscripted with the function label of the clause level tagmeme which R-A expounds since the particular exponent or set of exponents of Rel is determined by this function. The function label is then transferred to the symbol for the exponent of Rel.

Usually the function label need not be transferred to the Axis symbol since Axis exponents generally are not determined by the function of the clause level tagmeme. However, the function label is carried over when the Axis phrase requires separate description, i.e., when it differs, by virtue of the tagmeme the phrase expounds, from the description of the Noun phrase given in section 5.4.

The clause level R-A phrases are now described individually.

5.1.1. Subject R-A Phrase

The Subject R-A phrase ($R-A_s$) differs from other clause level R-A phrases in that the Relator (Rel_s) never has discrete exponence but is always expounded by a portmanteau form which simultaneously expounds a slot within the following Axis phrase. This phrase is either a Subject Noun phrase (N_s) or a Subject Pronoun phrase (Pr_s).

When Ax is expounded by N_s , Rel_s is in portmanteau relationship with the Classifier (Cs) of N_s , i.e., Rel_s and Cs are jointly expounded by a set of portmanteau forms which express Subject relator (rm_s) and noun class marker (cm). In formal statements and l/s translations the labels rm_s and cm are separated by a slash to indicate their portmanteau relationship.

When Ax is expounded by Pr_s , Rel_s is in portmanteau relationship with the Head of Pr_s , i.e., Rel_s and Hpr_s are jointly expounded by a set of portmanteau forms combining rm_s and pronoun. These forms are subclass 3 pronouns as listed in Table III (see 5.3.).

In the following formal statement a line linking two tagmemes indicates that their exponents are combined in portmanteau fashion. The portmanteau forms are given at the end of the formal statement.

Formal Statement:

$R-A_s$	→	$Rel_s + Ax_s$	
Rel_s	:	rm_s	
Ax_s	:	N_s, Pr_s	
		N_s	→ Cs +H (+...)
		Cs	:
		Pr_s	→ Hpr_s (+...)
		Hpr_s	:
			pr
		$rm_s/cm_{an.sg}$	→ ni
		$rm_s/cm_{an.pl}$	→ ne
		rm_s/cm_{in}	→ N^{-1}
		rm_s/pr	→ pr_3

The following examples illustrate Subject R-A phrases expounding clause level Subject slots:

1. lalan pakelagan ni tuama
T:(road) P:(walk_{rv}) S:(rm_s/cm_{man})

The man is walking on the road.

2. lalan pakelangan ne tuama
 T:(road) P:(walk_{RV}) S:(rm_S/cm man)
The men are walking on the road.
3. mæna'imæe pakelangan æntæberan
 T:(there) P:(flow_{RV}) S:(rm_S/cm-river)
The river flows over there.
4. lalan pakelangan ta
 T:(road) P:(walk_{RV})-S:(rm_S/we)
We are walking on the road.

5.1.2. Object R-A Phrase

The Object Relator slot has zero exponence (see 3.1.0.10.). Axis is expounded by a Noun phrase or Pronoun phrase. The Head exponent of the Pronoun phrase is a subclass 1 pronoun. In the example below the zero Object relator is marked in the l/s translation but elsewhere in the grammar it is not indicated.

Formal Statement:

$$\begin{aligned} R-A_0 &\longrightarrow Rel_0 + Ax \\ Rel_0 &: rm_0 \longrightarrow \emptyset \\ Ax &: N, Pr_1 \end{aligned}$$

5. si mama limutu? særa? nisea
 T:(cm mother) P:(cook_{SV}) O:(rm_O meat)_[O'] O:(rm_O they)_[B']
Mother cooked meat for them.

5.1.3. Instrument R-A Phrase

Instrument Relator slot is expounded by the marker *wo with* and Axis by a Noun phrase or by a Pronoun phrase with a subclass 1 pronoun expounding its Head.

Formal Statement:

$$\begin{aligned} R-A_1 &\longrightarrow Rel_1 + Ax \\ Rel_1 &: rm_1 \longrightarrow wo \\ Ax &: N, Pr_1 \end{aligned}$$

6. si kimaan wo leper
 P:(tm eat_{SV}) I:(rm_I spoon)
He ate with a spoon.

7. ku kimelaŋ wo nisia
 P:(tm walk_{sv}) I:(rm₁ he)
I walked with him.

5.1.4. Referent R-A Phrase

The Referent relator (Rel_r) is expounded by a set of Referent relation markers (rm_r) and Ax by a Noun phrase or Pronoun phrase. The Head exponent of Pr is a subclass 1 pronoun.

Formal Statement:

$$\begin{array}{lcl} R-A_r & \longrightarrow & Rel_r +Ax \\ Rel_r & : & rm_r \\ Ax & : & N, Pr_1 \end{array}$$

Referent relators indicate three degrees of distance. They are:

wia *close*
 witu *near distant*
 waki, mana *far distant*

These are illustrated in (8) to (10) below. Some further comments are necessary on Referent relators:

When distance is not relevant to the situation only wia expounds Rel (11).

If the Axis Head is a pronoun or a noun denoting a person, wia may optionally replace any of the other relators irrespective of distance (12).

When Rel_r is expounded by any marker other than wia and Head is expounded by a pronoun or noun denoting a person, the construction refers either to the person or the place of the person depending on context (13). If the place of the person is meant the relator cannot be wia.

If the relator is waki the inanimate class marker N- (see 5.4.1.) is obligatorily absent from the following Axis Noun phrase (14a) though this is not so following the other relators (14b).

8. ku maana? wia mbale ya?i
 P:(tm live_{sv}) R:(rm_r cm-house this)
I live in this house.
9. si maana? witu mbale iti?i
 P:(tm live_{sv}) R:(rm_r cm-house that)
He lives in that house.

5.2.1. Numbers

5.2.1.1. Full Numbers

Full numbers (no_1) are arranged into three ranks²:

(a) Rank 1 contains the following nine numbers (simple numeral stems):

esa	<i>one</i>	ənəm	<i>six</i>
rua	<i>two</i>	pitu	<i>seven</i>
təlu	<i>three</i>	walu ^u alu	<i>eight</i>
əpat	<i>four</i>	siow	<i>nine</i>
lima	<i>five</i>		

(b) Rank 2 numbers are formed from rank 1, 2 or 3 numbers followed by a subclass of measure nouns called here group numbers. Rank 2 numbers are thus themselves a special type of Numeral phrase in which No is expounded by no_1 and Mes , which is obligatory, is expounded by a subclass 1 measure noun (group number).

The group numbers are formed from bound numeral stems by prefixing with $\eta a-$ (see also 5.2.2.). They are:

η apulu?	<i>tens</i>
η aatus	<i>hundreds</i>
η ariwu	<i>thousands</i>

When *esa one* is followed by a group number, *esa* and the prefix $\eta a-$ are replaced by the prefix *ma-*. Thus:

mapulu?	<i>ten</i>
maatatus	<i>one hundred</i>
mariwu	<i>one thousand</i>

When a rank 2 number is formed from a rank 2 number plus a group number the following restrictions apply:

1. The group number must be η ariwu and the group number of the embedded rank 2 number cannot be η ariwu.³
 - ii. A rank 2 number embedded within a rank 2 number cannot itself have a rank 2 number as a constituent.⁴

1. (from rank 1)

- a. rua η apulu? *twenty*
 two tens
- b. təlu η aatus *three hundred*
 three hundreds
- c. siow η ariwu *nine thousand*
 nine thousands

2. (from rank 2)

- a. mapulu? ɲariwu *ten thousand*
 ten thousands
- b. rua ɲaatus ɲariwu *two hundred thousand*
 two hundreds thousands

3. (from rank 3)

- mapulu? wo lima ɲariwu *fifteen thousand*
 ten rm_{co} five thousands

(c) Rank 3 numbers are formed by co-ordination of a series of numbers from ranks 1 and 2. The co-ordination relator wo^{vo} and obligatorily precedes the last number of the series and optionally precedes the second last number in a series of at least three numbers. Rank 1 is optional and if present must be the last number in the series.

When wo^{vo} precedes a number beginning with ə one phonological word results in which ə is replaced by o, e.g., woosa^{vo}oosa and one from wo^{vo} and + əsa one.

4. (rank 2 + rm_{co} + rank 1)

- a. mapulu? woosa *eleven*
 ten rm_{co}-one
- b. rua ɲapulu? wo tɛlu *twenty three*
 two tens rm_{co} three
- c. tɛlu ɲaatus o rua *three hundred and two*
 three hundreds rm_{co} two
- d. mapulu? ɲariwu wo walu *ten thousand and eight*
 ten thousands rm_{co} eight

5. (rank 2 +rm_{co} +rank 2)

- tɛlu ɲaatus wo mapulu? *three hundred and ten*
 three hundreds rm_{co} ten

6. (rank 2 (+rm_{co}) +rank 2 +rm_{co} +rank 2)

- pitu ɲariwu (o) pitu ɲaatus o lima ɲapulu?
 seven thousands rm_{co} seven hundreds rm_{co} five tens
 seven thousand seven hundred and fifty.

7. (rank 2 +rank 2 (+rm_{CO}) +rank 2 +rm_{CO} +rank 1)

pitu ηariwu pitu ηaatus (o) lima ηapulu? oopat
seven thousands seven hundreds rm_{CO} five tens rm_{CO}-four
seven thousand seven hundred and fifty four

Full numbers are prefixed with ka- to form ordinals. The exception is əsa *one* which is replaced by kətare *first*. When kətare is followed by a group number, kətare and ηa- are replaced by prefix ka-, as in (8a).

- | | | |
|-----|----------------------|----------------------|
| 8a. | kapulu? | <i>tenth</i> |
| b. | karua | <i>second</i> |
| c. | katəlu | <i>third</i> |
| d. | karua ηapulu? | <i>twentieth</i> |
| e. | karua ηapulu? wo rua | <i>twenty second</i> |

5.2.1.2. Fractional Numbers

Fractional numbers (no₂) are themselves structured, consisting of a special type of Numeral phrase in which No is expounded by no₁ and Mes, which is obligatory, is expounded by a subclass 2 measure noun. Subclass 2 measure nouns are fractionals and include the following (see also 8.1.2g.):

ηaparua	<i>halves</i>	ηapaapat	<i>quarters</i>
ηapatəlu	<i>thirds</i>	ηapalima	<i>fifths</i>

Preceding fractionals əsa is manifested as sa- attached to the fractional, as in (9a).

- | | | |
|-----|----------------|---------------------|
| 9a. | saηaparua | <i>one half</i> |
| b. | rua ηapatəlu | <i>two thirds</i> |
| c. | təlu ηapalima | <i>three fifths</i> |
| d. | əpat ηapapulu? | <i>four tenths</i> |

5.2.1.3. Co-Ordinated Numbers

The following examples illustrate the co-ordinated series of no₁ and no₂ expounding No:

- | | | |
|------|--|-----------------------------|
| 10a. | əsa wo saηaparua | <i>one and a half</i> |
| | one rm _{CO} one-halves | |
| b. | rua wo təlu ηapalima | <i>two and three fifths</i> |
| | two rm _{CO} three fifths | |
| c. | rua ηapulu? wo saηapaapat | <i>twenty and a quarter</i> |
| | two tens rm _{CO} one-quarters | |

5.2.2. Measure Nouns

Measure nouns occur only within Numeral phrases. There are five subclasses.

Subclass 1 consists of the three group numbers which occur in the formation of rank 2 numbers (see 5.2.1.lb).

Subclass 2 contains the fractionals used in the formation of fractional numbers (see 5.2.1.2.).

Subclass 3, 4 and 5 measure nouns are distinguished from subclasses 1 and 2 in that they are not employed in the formation of numbers, i.e., they never occur within No.

Measure nouns are formed from noun stems by the prefixing of *ŋa-*. When *əsa one* occurs in No immediately preceding *ŋa-* it is manifested as *sa-*. Subclass 1 measure nouns are an exception to this rule, as mentioned in section 5.2.1.lb.

Subclass 3 contains words for units of time. These include the following⁵:

<i>ŋaando</i> ^h <i>ŋaado</i>	<i>days</i>	<i>ŋasumədot</i>	<i>months</i>
<i>ŋawəŋi</i>	<i>nights</i>	<i>ŋətaʔun</i>	<i>years</i>

Below are illustrated Numeral phrases in which Mes is expounded by a subclass 3 measure noun:

- 11a. *rua* *ŋaado* *two days*
 No:(*two*) Mes:(*days*)
- b. *kasiow* *ŋaado* *ninth day*
 No:(*ninth*) Mes:(*days*)
- c. *lima wo* *saŋaparua* *ŋətaʔun*
 No:(*five* *rm*_{CO} *one-halves*) Mes:(*years*)
 Five and a half years

Subclass 4 measure nouns are words indicating capacity or quantity. Any noun indicating a container can form a measure noun of this class. The class includes the following:

<i>ŋətampayan</i>	<i>jugfuls</i>	<i>ŋameʔmeʔ</i>	<i>clumps (of rice)</i>
<i>ŋəmaŋku</i>	<i>cupfuls</i>	<i>ŋatətuun</i>	<i>bunches (of bananas)</i>
<i>ŋaloyan</i>	<i>basinfuls</i>	<i>ŋaronkəm</i>	<i>handfuls (one hand)</i>
<i>ŋaloʔloʔ</i>	<i>basketfuls</i>	<i>ŋameʔməs</i>	<i>handfuls (two hands)</i>

The following examples illustrate Numeral phrases in which Mes is expounded by a subclass 4 measure noun:

- 12a. saṅatətuun one bunch
 No:(one)-Mes:(bunches)
- b. təlu ḡalodey three boatloads
 No:(three) Mes:(boats)
- c. rua ḡapatəlu ḡəmaṅku two thirds of a cup
 No:(two thirds) Mes:(cupfuls)
- d. rua wo saṅaparua ḡawotəl
 No:(two _{rm_{CO}} one-halves) Mes:(bottles)
 two and a half bottlefuls

The prefix ḡa- may be optionally absent from a subclass 4 measure noun if the preceding number is a full number:

- 13a. səḡəmaṅku
 No:(one)-Mes:(cupfuls)
- b. əsa maṅku
 No:(one) Mes:(cupfuls)
 one cupful
- 14a. rua ḡətampayan
 No:(two) Mes:(jugfuls)
- b. rua tampereṅ
 No:(two) Mes:(jugfuls)
 two jugfuls

The constructions in (13b) and (14b) are homophonous with other constructions (see 5.4.5.6.).

Subclass 5 contains only one recorded member, which corresponds to the 'numeral co-efficients' or 'noun classifiers' which are a feature of some other Indonesian languages. A separate subclass is noted here because of the possibility that other such words exist in the language. The subclass 5 member, ḡaʔaka stems, trunks, classifies plants and trees. In the following example Num occurs within a Nominalised Numeral clause followed by a Qualifier indicating the thing being measured:

15. ndua ḡaʔaka nsaʔut two banana trees
 cm-H:(two stems) Qu:(tm-banana)

5.3. PRONOUN PHRASES

A Pronoun phrase (Pr)⁶ consists of a Head slot expounded by a pronoun and two optional tagmemes, Demonstrative and Apposition. These optional tagmemes also occur in Noun phrases and are described in Section 5.4.

Formal Statement:

Pr → Hpr (+Dem) (+Ap)

Hpr : pr

There are three pronoun subclasses. In each subclass occur animate pronouns which substitute for animate nouns. These indicate first, second and third person and singular and plural number. First person plural pronouns are subdivided into inclusive (which includes second person) and exclusive (which excludes second person).

Inanimate pronouns, which substitute for inanimate nouns, occur only in subclasses 2 and 3. In subclass 2 they indicate near and far distance while in subclass 3 they indicate singular and plural number.

The label Pr can be subscripted with the number of the subclass of its Head exponent. Thus Pr₁ is a Pronoun phrase in which the Head is expounded by a subclass 1 pronoun.

Pronoun subclasses are listed in Table III.

Subclass 3 pronouns are further mentioned in section 8.2.1.

TABLE III: PRONOUN SUBCLASSES

	1	2	3
<u>ANIMATE</u>			
1 sing.	niaku	aku	-ku
2 sing.	niko~nikoo	ko~koo	-mu
3 sing.	nisia	sia	-na
1 pl. incl.	nikita	kita	-ta
1 pl. excl.	nikey	key	-mey~møy
2 pl.	nikow	kow	-miow~miu
3 pl.	nisea	sea	-nea
<u>INANIMATE</u>			
		<i>near</i> ya	sing. -na
		<i>far</i> itu	pl. -nea

Subclass 2 pronouns expound Topic and Pro-Topic slots of certain derived clause types described in Chapter Six. Subclass 2 animate pronouns can also expound Topic in a Basic clause but inanimate pronouns cannot. Subclass 3 pronouns occur in Subject and Possessor R-A phrases. Subclass 1 occur in all other environments. Expounding the Topic of Basic clauses they are in free variation with subclass 2 animate pronouns.

5.4. NOUN PHRASES

5.4.0. This section describes the structure of the 'unmarked' Noun phrase, i.e., the phrase labelled N without subscript function label. The 'unmarked' Noun phrase occurs in any slot whose exponent is labelled N, e.g., Topic and most of the Axis slots described in section 5.1. Whenever a difference in the distribution of a Noun phrase is correlated with a difference in its internal structure a Noun phrase subclass is recognised and N is accordingly subscripted. Noun phrase subclasses are described, in so far as they differ from N, in the sections dealing with the tagmemes in which they occur. Thus the Subject Noun phrase (N_s) is described in section 5.1.1. dealing with the Subject R-A phrase.

In addition to distribution subclasses, Noun phrases can be subclassified according to the subclass of noun expounding the phrase Head since this difference is usually correlated with a difference in the allowable sequence of post-Head tagmemes in the phrase. However, a detailed subclassification of Noun phrases according to such criteria is beyond the scope of this work. Instead, in the description of each post-Head tagmeme, restrictions as to the subclasses of Head exponents with which it may occur are listed.

Formal Statement:

$$N \rightarrow Cs +Hn (+Po) (+At) (+Qu)^3 (+Dem) (+Ap)$$

The superscript 3 after Qu specifies that the tagmemes may occur up to three times in the one phrase.

5.4.1. Classifier

The Classifier slot (Cs) is expounded by a set of noun class markers (cm) which mark the following Head noun as animate or inanimate.

The inanimate class marker (cm_{in}) is N-, which is phonologically attached to the following noun. Allomorphs of N- and changes undergone by the consonant following it are described in section 8.0j.

The animate class marker also indicates the number of the following animate noun which is either singular or plural. Thus, when Hn is expounded by an animate noun, Cs is expounded by a marker indicating either animate class/singular ($cm_{an.sg}$) or animate class/plural ($cm_{an.pl}$).

The class markers are given in Table IV.

TABLE IV: NOUN CLASS/NUMBER MARKERS

animate		inanimate
singular	plural	
si	se	N-

To the animate noun class belong all living things except flora, e.g.:

si tuama	<i>man</i>	se tuama	<i>men</i>
si asu	<i>dog</i>	se asu	<i>dogs</i>
si loloati	<i>worm</i>	se loloati	<i>worms</i>
si reŋaʔ	<i>snail</i>	se reŋaʔ	<i>snails</i>
si mantik	<i>Mantik</i> (person's name)		

To the inanimate class belong flora and all non-living things with a few exceptions mentioned below, e.g.:

mpoʔpoʔ	<i>coconut, coconut tree</i>
ntali	<i>rope</i>
loit	<i>money</i>
ŋkaleʔos	<i>goodness</i>
ŋkəkantarən	<i>song</i>

There are a few exceptions to the rules for class membership given above. A few non-living things belong to the animate class, e.g.:

si sumədot	<i>moon</i>
si edo	<i>sun</i>
si səsoloŋ	<i>finger ring</i>
si tətow	<i>carved figure, doll</i>
se wəwows	<i>beads</i>

The animate class also includes anything dead or spiritual, e.g.:

si tow minate	<i>a dead person, corpse</i>
si əmpuŋ	<i>the Lord</i>
se opoʔ	<i>the ancestors</i>

Some nouns belong to both classes but with different (though related) meanings, e.g.:

si tow	<i>person</i>	-	ntow	<i>(person's) body</i>
si amian	<i>north wind</i>	-	namian	<i>north</i>
si toudano	<i>Tondanese (person)</i>	-	ntoudano	<i>Tondano (town)</i>
si sərəʔ	<i>fish</i>	-	nsərəʔ	<i>meat (of fish or animal)</i>

Nominalised clauses and demonstratives fall into either class depending on the class of the noun for which they substitute, e.g.:

si pəwəŋkeran *the one to whom (something) is sold -*
 mpəwəŋkeran *the place where (something) is sold*
 se rua *the two (animate things) - ndua the two (inanimate things)*
 si yaʔi *this (animate) one* - niaʔi *this (inanimate) one*

Animate class/singular marker *si* may optionally occur instead of animate/plural marker *se* when a whole species or group is referred to, e.g.:

si kuda *the horse* (singular or as a species)

Under certain grammatical conditions class markers are absent from N. These conditions are described as they arise in this and the following chapters.

Apart from conditions under which it is obligatorily absent and a few cases in which it is obligatorily present, e.g., when in portman-teau relationship with a Subject or Possessor relator (see 5.1.1. and 5.4.3.), the inanimate marker N- is optional. Although optional, the tendency for N- to occur varies with environment. The following points are only a rough guide to these tendencies:

i. When the Head exponent begins with a vowel N- is almost never absent. In citation, when the noun is uttered out of context, N- is always present, e.g.:

nate *heart*, nipus *tail* - very rarely: ate, ipus

ii. N- is almost never absent following a relator:

wo ntali *with a rope* - very rarely: wo tali

iii. If the Head noun begins with a consonant no preference for the presence or absence of N- has been observed, except under the conditions stated in ii.:

kayu, ŋkayu *wood*

pəpalən, mpəpalən *door*

If N- is not present a distinction must be made between its non-occurrence and its occurrence and subsequent deletion to account for changes to following consonants. This is described in section 8.0j.

Apart from conditions under which they are obligatorily absent, animate class/number markers are obligatory except under the following conditions:

i. In titles of stories they are optional when marking the first noun in co-ordinated Noun phrases, e.g.:

waʔu wo si woley, si waʔu wo si woley *The tortoise and the monkey.*

- c. mbaya ne tow *all the people*
 cm-H:(*all*) Po:(rm_{po}/cm *person*)

Since N_{po} is a subclass of N it has potential for the optional tag-memes occurring in N including Po. Hence multiple embedding of Po is possible.

6. (double embedding of Po)

- a. si asu ni ka'ampitəku
 cm H:(*dog*) Po:(rm_{po}/cm H:(*friend*)-Po:(*my*))
my friend's dog
- b. muri mbale ni mantik
 H:(*back*) Po:(rm_{po}/cm-H:(*house*) Po:(rm_{po}/cm *Mantik*))
the back of Mantik's house

7. (triple embedding of Po)

- si asu ni kalo ni papaku
 cm H:(*dog*)Po:(rm_{po}/cm H:(*friend*)Po:(rm_{po}/cm H:(*father*)-Po:(*my*)))
my father's friend's dog

When the Possessor Axis Head is an inanimate noun the phrase may be preceded optionally by a possessive pronoun:

- 8a. na'ena ntamporok
 H:(*foot*)-Po:(*its* rm_{po}/cm-*Tamporok*)
the foot of (Mount) Tamporok
- b. retenea numa
 H:(*side*)-Po:(*their* rm_{po}/cm-*garden*)
beside the gardens (lit.: (at) the side of the gardens)

5.4.4. Attributive

The Attributive slot (At) is expounded by a common noun. At differs from a Qualifier (see 5.4.5.) in that it is not capable of expansion (not even a class marker can occur) and cannot be transformed into a clause. At may follow only a Head expounded by a common noun.

Formal Statement:

Hn : n_{cn}
 At : n_{cn}

- 9a. kədir watu *stone wall*
 H:(*wall*) At:(*stone*)
- b. rəreen tabəlaŋ *bamboo fence*
 H:(*fence*) At:(*bamboo*)

b. si tuama waŋko? a big man
cm H:(man) Qu:(big)

c. se rua itəm iti?i
cm H:(two) Qu:(black) Dem:(that)
those two black ones

Qu_{des} follows Po containing Pr_{po} but precedes Po containing N_{po}.
Qu_{des} following Po containing N_{po} is embedded within Po. Qu_{des} follows
At.

13. (Qu_{des} following Po containing Pr_{po})

a. si asuku waŋko?
cm H:(dog)-Po:(my) Qu:(big)
my big dog

b. mbanuanea tu?a
cm-H:(village)-Po:(their) Qu:(old)
their former village

14. (Qu_{des} followed by Po containing N_{po})

si asu waŋko? ni tuama
cm H:(dog) Qu:(big) Po:(rm_{po}/cm man)
the man's big dog

15. (Qu_{des} embedded within Po)

si asu ni tuama waŋko?
cm H:(dog) Po:(rm_{po}/cm H:(man) Qu:(big))
the dog of the big man

16. (Qu_{des} following At)

rəreen tabəlan səla
H:(fence) At:(bamboo) Qu:(big)
a big bamboo fence

5.4.5.2. Numeral Qualifier

The Numeral Qualifier slot (Qu_{num}) is expounded by a Qualifying
Numeral clause (QuCl_{num}). It can only follow a Head expounded by a
common noun.

Formal Statement:

Hn : n_{cn}
Qu_{num} : QuCl_{num}

17a. mbale rua two houses
cm-H:(house) Qu:(two)

- b. se tow təlu *three people*
 cm H:(*person*) Qu:(*three*)
- c. nsopi rua nətampayan *two jugs of palm wine*
 cm-H:(*wine*) Qu:(*two jugfuls*)

Qu_{num} follows Po containing Pr_{po} and precedes Po containing N_{po}.
 Qu_{num} follows At and Qu_{des}.

18. (Qu_{num} following Po containing Pr_{po})
 waleku rua *my two houses*
 H:(*house*) -Po:(*my*) Qu:(*two*)
19. (Qu_{num} followed by Po containing N_{po})
 wale rua ni mantik
 H:(*house*) Qu:(*two*) Po:(rm_{po}/cm *Mantik*)
Mantik's two houses
20. (Qu_{num} following At)
- a. nkopi sokelat sənəmanku
 cm-H:(*coffee*) At:(*chocolate*) Qu:(*one-cupful*)
one cup of chocolate coffee
- b. roda sapi rua *two ox carts*
 H:(*cart*) At:(*ox*) Qu:(*two*)
21. (Qu_{num} following Qu_{des})
- a. buṅaṅ puti? rua
 H:(*flower*) Qu_{des}:(*white*) Qu_{num}:(*two*)
two white flowers
- b. sa?ut mata? rua nətətuun
 H:(*banana*) Qu_{des}:(*unripe*) Qu_{num}:(*two bunches*)
two bunches of green bananas

5.4.5.3. Similitude Qualifier

Similitude Qualifier (Qu_{sim}) contains a Qualifying Similitude clause (QuCl_{sim}). It has only been observed to occur after a Head containing a common noun.

Formal Statement:

Hn : n_{cn}

Qu_{sim} : QuCl_{sim}

22. lodey tanu lodeyku
 H:(*boat*) Qu:(rm_{sim} *boat-my*)
a boat like my boat

Qu_{sim} has not been recorded in co-occurrence with Po containing Pr_{po} but follows Po containing N_{po}. A sequence of Po followed by Qu_{sim} may be ambiguous, Qu_{sim} being embedded either within Po or at the same level as Po.

23. (Po followed by Qu_{sim} embedded at the same level. The construction is ambiguous but the context within which it occurred makes it clear that what is as thick as a thigh is the branch and not the tree.)

paŋana ŋkayu tanu mpa'a ŋkasəla
H:(branch) Po:(rm_{po}/cm-tree) Qu:(rm_{sim} cm-thigh cm-bigness)
a branch of the tree which is as thick (lit:big) as a thigh

24. (Qu_{sim} embedded within Po)

ŋaran ni rəraa tuana ŋkəwaŋun
H:(name) Po:(rm_{po}/cm H:(girl) Qu:(thus cm-beauty))
the name of the girl who is so beautiful

Qu_{sim} follows At, Qu_{des} and Qu_{num}. It should be noted that when Qu_{sim} follows Qu_{des} structural ambiguity does not result; Qu_{sim} cannot be embedded within Qu_{des} since a Descriptive phrase (see 5.5.) does not contain a Similitude tagmeme.

25. (Qu_{des} followed by Qu_{sim} embedded at the same level)

si ləloi' waŋko' tanu si ləloi' ya'i
cm H:(snake) Qu_{des}:(big) Qu_{sim}:(rm_{sim} cm snake this)
a big snake like this one

5.4.5.4. Referential Qualifier

The Referential Qualifier (Qu_{ref}) is expounded by a Qualifying Referential clause. Qu_{ref} can occur in a Noun phrase whose Head exponent is a common noun or Nominalised Numeral clause.

Formal Statement:

Hn : n_{cn}, NomCl_{num}
Qu_{ref} : QuCl_{ref}

26a. nu'manən wia si piŋkan
cm-H:(story) Qu:(rm_r cm Pingkan)
the story about Pingkan

b. se tow wia
cm H:(person) Qu:(here)
the people who are here or the people in this place

- c. se tow rai' wia mbale
 cm H:(*person*) Qu:(neg rm_r cm-house)
the people who aren't in the house
- d. si esa wia se asuna
 cm H:(*one*) Qu:(rm_r cm dog-his)
one of his dogs
- e. se rua witu noto
 cm H:(*two*) Qu:(rm_r cm-car)
the two in the car

Qu_{ref} follows Po containing Pr_{po}:

27. mpa'arəna wia si ema
 cm-H:(*liking*)-Po:(*his*) Qu:(rm_r cm Emma)
his fondness for Emma

If Po contains N_{po}, Qu_{ref} follows Po embedded at the same level but only, apparently, if the construction is not ambiguous. In (28a) the Head of the Possessor Noun phrase contains a proper noun. Since Qu cannot occur in a Noun phrase whose Head exponent is a proper noun Po and Qu_{ref} must be embedded at the same level. If the Head of N_{po} contains a common noun a following Qu_{ref} may be embedded at the same level if this does not give rise to ambiguity (28b). Otherwise Qu_{ref} is embedded within Po (29). Po following Qu_{ref} is embedded within Qu_{ref} (30).

28. (Po followed by Qu_{ref} embedded at the same level)

- a. se uraŋ ni matindas wia si wəwene iti'i
 cm H:(*child*) Po:(rm_{po}/cm Matindas) Qu:(rm_r cm woman that)
the children of Matindas by that woman
- b. nu'manən ne tu'a wia nikey
 cm-H:(*story*) Po:(rm_{po}/cm parent) Qu:(rm_r we)
the elders' story to us

29. (Qu_{ref} embedded within Po)

se asu ni tuama witu mbale
 cm H:(*dog*) Po:(rm_{po}/cm H:(*man*) Qu:(rm_r cm-house))
the dogs of the man who is in the house

30. (Po embedded within Qu_{ref})

se asu witu mbale ni tuama
 cm H:(*dog*) Qu:(rm_r cm-H:(*house*) Po:(rm_{po}/cm man))
the dogs in the man's house

Qu_{ref} follows the other optional phrase level tagmemes described above.

31. (Qu_{des} followed by Qu_{ref})

si rāraa oki' witu mbale
 cm H:(girl) Qu_{des}:(little) Qu_{ref}:(rm_r cm-house)
 the little girl in the house

5.4.5.5. Verbal Qualifier

The Verbal Qualifier (Qu_v) is expounded by a Qualifying Verbal clause. Qu_v occurs with a Head expounded by a common noun or a Nominalised Numeral clause.

Formal Statement:

Hn : n_{cn}, NomCl_{num}
 Qu_v : QuCl_v

32a. si kuda pərərənkitəna
 cm H:(horse) Qu:(intend-steal_{ov}-he)
 the horse which he intends to steal

b. ntampa niatoaneala nisia
 cm-H:(place) Qu:(P:see_{rv}-S:they-Mod O:he)
 the place where they had seen him

c. se rua timiboy əntali
 cm H:(two) Qu:(hold_{sv} cm-rope)
 the two who are holding the rope

Qu_v follows Po. If Po contains N_{po} whose Head is expounded by a common noun or a Nominalised Numeral clause ambiguity may result, Qu_v being embedded at the same level as Po or within Po. In (34a) context indicates that Po and Qu_v are embedded at the same level. Presumably, however, the construction is potentially ambiguous. In (34b) Qu_v is treated as being at the same level as Po although, presumably, it could also be regarded as being embedded within Po with little change in meaning. In (35) Qu_v is embedded within Po.

33. (Qu_v following Po containing Pr_{po})

si ka'ampitəku məliŋkun
 cm H:(friend)-Po:(my) Qu:(smoke_{sv})
 the friend of mine who is smoking

34. (Po containing N_{po} followed by Qu_v at the same level)

a. wureŋa ni we?wek ipawaŋker waki pasar
 H:(egg) Po:(rm_{po}/cm duck) Qu:(sell_{iv} rm_r market)
duck's eggs sold in the market

b. se kasuat ne ko?ko? rai? tinotor wia?i
 cm H:(kind) Po:(rm_{po} cm bird) Qu:(neg mention_{ov} here)
species of birds which are not mentioned here

35. (Qu_v embedded within Po)

nənus na'e ne tow mey maləle?
 H:(trace) At:(foot) Po:(rm_{po}/cm H:(person) Qu:(come_{sv} bathe_{sv}))
footprints of people who come to bathe

Qu_v follows all other abovementioned optional tagmemes:

36. (Qu_{des} followed by Qu_v)

roda oki? pinumpunan əmbatu
 H:(cart) Qu_{des}:(small) Qu_v:(load_{rv} cm-rock)
a small cart loaded with rocks

37. (Qu_{num} followed by Qu_v)

a. se potrek rua winaŋko?mow
 cm H:(portrait) Qu_{num}:(two) Qu_v:(enlarge_{ov-mod})
two enlarged portraits

b. ŋkadera əsa rai? rinubəran
 cm-H:(chair) Qu_{num}:(one) Qu_v:(neg sit_{rv})
one chair which isn't occupied

38. (Qu_{ref} followed by Qu_v)

se tow waki jawa miney wia mbenan
 cm H:(person) Qu_{ref}:(rm_r Java) Qu_v:(come_{sv} rm_r cm-Menado)
people from Java who have come to Menado

39. (Qu_{sim} followed by Qu_v)

lodey tuana ŋkəlakər matodotodon
 H:(boat) Qu_{sim}:(thus cm-quantity) Qu_v:(follow_{sv})
a great many boats in a row (lit: so many boats continuously following)

5.4.5.6. *Nominal Qualifier*

The Nominal Qualifier slot (Qu_n) is expounded by an embedded Noun clause. It can occur only in a phrase whose Head is expounded by a Nominalised Numeral clause.*

Formal Statement:

Hn : NomCl_{num}

Qu_n : QuCl_n

Any Noun phrase with a Head expounded by a common noun followed by a Numeral Qualifier (see 5.4.5.2.) may be transformed into a phrase containing a Head expounded by a Nominalised Numeral clause followed by a Nominal Qualifier without change of meaning. The following examples transform those given in (17) above:

- 40a. ndua wale *two houses*
 cm-H:(*two*) Qu:(*house*)
- b. se t̄əlu tow *three people*
 cm H:(*three*) Qu:(*person*)
- c. ndua ɳətampayan sopi *two jugs of palm wine*
 cm-H:(*two jugs*)) Qu:(*wine*)

As noted in section 5.2.2., prefix ɳa- may be absent from a subclass 4 measure noun. Such a phrase can expound the Predicate Centre of a Nominalised Numeral clause and this can result in the following ambiguity: (i) The phrase Head may contain a number plus a subclass 4 measure noun and be followed by a Nominal Qualifier containing a single noun, as in (41a) or (ii) the phrase Head may contain only a number and be followed by Qu_n containing a Head noun followed by an Attributive noun, as in (41b):

* Alternatively these constructions could be regarded as consisting of a Numeral Qualifier followed by a Head expounded by a common noun. Under this analysis Qu_{num} would freely precede or follow Head. Evidence for this analysis includes the fact that the meaning of the phrase is the same whether the Numeral clause precedes or follows the noun and that the noun, and not the Numeral clause, acts as Head to all other tagmemes in the phrase.

Under this analysis a Numeral clause could still be nominalised but only, as is the case with all other Nominalised clause types, when the Head noun has been deleted (see 6.1.8.).

In section 6.1.8. it is explained that Topic Concord deletion is optional in a Qualifying Noun clause whose Predicate contains an inanimate noun. Under the analysis suggested here the N- would represent a repetition of the class marker and not a retention of the topic marker. The analysis of example (4) in section 6.1.8. would thus be:

ndua mbale *two houses*
 cm-Qu:(*two*) cm-H:(*house*)

- 41a. rua tampayan sopi
 H:(two jugfuls) Qu:(wine)
 two jugs of wine
- b. rua tampayan sopi
 H:(two) Qu:(H:jug At:wine)
 two wine jugs

The constructions can be disambiguated by transforming them into phrases in which the Numeral phrase occurs within a Numeral Qualifier. Thus (41a) is transformed into (42a) and (41b) is transformed into (42b):

- 42a. sopi rua tampayan
 H:(wine) Qu:(two jugfuls)
 two jugs of wine
- b. tampayan sopi rua
 H:(jug) At:(wine) Qu:(two)
 two wine jugs

No optional phrase level tagmemes may precede Qu_n . All phrase level tagmemes following Qu_n are interpreted as being embedded within Qu_n rather than being embedded at the same level. Evidence for this interpretation is that Po containing Pr_{po} immediately follows Qu_n . Since a Possessor pronoun always occurs post-clitic to the Head of the phrase in which it is embedded, Po must be treated as being embedded within Qu_n . Consequently all other following phrase level tagmemes are likewise interpreted.

43. (Qu_n containing Po)

 rua asuku
 cm H:(two) Qu(H:(dog)-Po:(my))
 my two dogs

44. (Qu_n containing embedded Qu_{des} and Dem)

se rua asu waŋko? iti?i
 cm H:(two) Qu_n :(H:(dog) Qu_{des} :(big) Dem:(that))
 those two big dogs

5.4.5.7. Existential Qualifier

The Existential Qualifier (Qu_{ex}) is expounded by an embedded Existential clause. Existential clauses are described in section 6.2.1. Qu_{ex} has only been observed to follow a Head expounded by a common noun and has not been recorded in co-occurrence with any other optional phrase level tagmemes.

Formal Statement:

Hn : n_{cn}
 Qu_{ex} : QuCl_{ex} (A and B)

The formal statement indicates that only subtype A and B Existential clauses can be transformed into Qualifying clauses.

45a. si tow rai? si səsapa'an
 cm H:(*person*) Qu:(*ex si something*)
a person who has nothing

b. ntoka wəweanow rano
 cm-H:(*mountain*) Qu:(*ex-mod water*)
mountains which have water (i.e.: water-filled craters)

5.4.6. Demonstratives

Demonstratives (dem) expound a Demonstrative slot (Dem) and indicate three degrees of distance as well as interrogative. They are:

ya?i, na?i,	<i>this</i>
iti?i, ni?itu	<i>that (close)</i>
iti?ila, na?imae	<i>that (far)</i>
wisa	<i>which?</i>

The demonstrative *ya?i* is also used to refer to someone or something at present being spoken of even though they are not physically present while *iti?i* and *ni?itu* are used to refer to someone or something previously mentioned.

Demonstratives can occur with pronouns and all noun subclasses except nominalised demonstratives.

46a. mbale ya?i *this house*
 cm-H:(*house*) Dem:(*this*)

b. se rua iti?ila *those two over there*
 cm H:(*two*) Dem:(*that*)

c. si mənereŋeret iti?i
 cm H:(*call_{sv}*) Dem:(*that*)
that one who is continually calling out

d. si keke? iti?i
 cm H:(*Keke*) Dem:(*that*)
Keke, of whom we have spoken

e. nisia na?i *he, who is here*
 H:(*he*) Dem:(*this*)

- f. si tuama wisa which man?
 cm H:(man) Dem:(which)

Dem follows Po containing Pr_{po} but has not been observed to co-occur with Po containing N_{po}. Dem follows At, Qu_{des}, Qu_{num} and Qu_{sim}. It precedes Qu_{ref} but the two cannot co-occur if Qu_{ref} contains a referent demonstrative.

47. (Dem following Po and Qu_{des})

si asuku waŋko? iti?i
 cm H:(dog)-Po:(my) Qu_{des}:(big) Dem:(that)
 that big dog of mine

48. (Dem following At and Qu_{num})

roda sapi rua ya?i
 H:(cart) At:(ox) Qu:(two) Dem:(this)
 these two ox carts

49. (Dem preceding Qu_{ref})

si tuama iti?i witu mbawa? ŋkayu
 cm H:(man) Dem:(that) Qu:(rm_r cm-under rm_{po}/cm-tree)
 that man underneath the tree

Dem follows Qu_v at the same level if there is no possibility of ambiguity. If QuCl_v has as its final constituent a tagmeme within which Dem may occur, Dem embedded at the same level as Qu_v must precede and a following Dem is embedded within Qu_v.

50. (Dem following Qu_v at the same level)

se təlu məliŋkun iti?i
 cm H:(three) Qu:(smoke_{sv}) Dem:(that)
 those three who are smoking

51. (Dem followed by Qu_v)

si tuama iti?i rimubər witu ŋkadera
 cm H:(man) Dem:(that) Qu:(sit_{sv} rm_r cm-chair)
 that man sitting in the chair

52. (Dem embedded within Qu_v)

si tuama rimubər witu ŋkadera iti?i
 cm H:(man) Qu:(sit_{sv} rm_r cm-chair that)
 the man sitting in that chair

5.4.7. Apposition

5.4.7.0. Three constructions are recognised as appositive: the Internal Appositive phrase (Ap_{int}), the Close Appositive phrase (Ap_{clo}) and

the Loose Appositive phrase (Ap_{100}).

5.4.7.1. Internal Apposition

The Internal Appositive phrase is a Relator-Axis construction ($R-A_{int}$) whose Relator slot is expounded by the Appositive relation marker (rm_{int}) nu. Axis is expounded by an Internal Appositive Noun phrase (N_{int}) which is marked by the obligatory absence of Classifier. The only recorded exponents of the Head of N_{int} are common nouns and Nominalised Numeral clauses. Of the post-Head tagmemes only Po has been observed to occur in N_{int} . Ap_{int} occurs in a Pronoun phrase or a Noun phrase whose Head is expounded by a proper noun.*

Formal Statement:

H	:	pr, n _{pn}			
Ap_{int}	:	$R-A_{int}$	→	Rel_{int}	$+Ax_{int}$
		Rel_{int}	:	rm_{int}	→ nu
		Ax_{int}	:	N_{int}	→ Hn_{int} (+Po)
				Hn_{int}	:
					n _{cn} , NomCl _{num}

53. (Ap_{int} occurring in Pr)

- a. nisea nu tɛlu *they three*
 H:(*they*) Ap:(rm_{int} *three*)
- b. nisea nu matuari
 H:(*they*) Ap:(rm_{int} *sibling*)
they, the brothers
- c. nikey nu tu?amu
 H:(*we*) Ap:(rm_{int} H:(*parent*)-Po:(*your*))
we, your parents

54. (Ap_{int} occurring in N whose Head exponent is n_{pn})

- si piŋkan nu əsa
 cm H:(*Piŋkan*) Ap:(rm_{int} *one*)
Piŋkan herself or Piŋkan alone

When Ap_{int} occurs in a Subject Pronoun phrase it can be separated from the Head by an intervening Mode tagmeme:

* A further example has been recorded since the writing of this section, *nisia nu wia luar he who is outside*, in which the relator nu is followed by a Referent phrase. This opens the possibility of other construction types following nu. It is possible that what is called Internal Apposition here is emically identical with the Qualifier tagmeme. If so, embedded clauses can occur in phrases with pronoun and proper noun Heads, being linked by a Qualifying relator nu.

55. (Ap
- _{int}
- within Pr
- _s
- separated from Head by modal -la)

itanəmtala nu rua
 P:(plant_{iv})-S:(H:we-[Mod] Ap:rm_{int} two)
planted by both of us

5.4.7.2. Close Apposition

The Close Appositive slot is expounded by a Noun phrase which is marked by obligatory absence of Classifier and a Head restricted in exponence to common and proper nouns. Ap_{clo} has only been recorded following common nouns and does not co-occur with any other post-Head tagmemes except Po containing Pr_{po}. The Close Appositive Noun phrase (N_{clo}) differs from an Attributive noun in that it is capable of expansion and may be transformed into a clause. It thus appears to be an embedded clause but is here treated as appositive because of its possible emic identity with the Loose Appositive Noun phrase.

Formal Statement:

$$\begin{array}{l} \text{Hn} \quad : \quad n_{cn} \\ \text{Ap}_{clo} : \quad N_{clo} \longrightarrow \text{Hn}_{clo} \quad (+\dots) \\ \quad \quad \quad \text{Hn}_{clo} \quad : \quad n_{cn}, n_{pn} \end{array}$$

- 56a. si kalona woley
 cm H:(friend)-Po:(his) Ap:(monkey)
his friend, Monkey

- b. si rəraa lansuna puti?
 cm H:(girl) Ap:(Lansuna Puti)
the girl, Lansuna Puti

- c. si wəwene kagio ni tətow
 cm H:(woman) Ap:(H:(look-alike) Po:(rm_{po}/cm statue))
*the woman who resembles the statue (lit.: the woman,
 the look-alike of the statue)*

5.4.7.3. Loose Apposition

The Loose Appositive phrase (Ap_{loo}) is expounded by a Noun phrase which has the structure described for N_{clo} except that it includes a Classifier tagmeme. Ap_{loo} follows all other tagmemes within the phrase and is separated from them by a pause in the flow of speech. It has only been observed to follow a Head expounded by a common noun. Ap_{loo} differs from Ap_{clo} in that, as noted above, it has a Classifier and follows a pause in the flow of speech. However, it is possible that these differences are determined by the presence or absence of other

tagmemes, i.e., Ap_{clo} never co-occurs with other post-Head tagmemes (except Pr_{po}) while Ap_{loo} , in all recorded examples, is separated from the phrase Head by other tagmemes. Thus, Ap_{clo} and Ap_{loo} may prove to be etic variants of the one tagmeme. The similarity of the two is clearly seen in a comparison of (56c) and (57b).

57a. si papamu oki? si raja
 cm H:(father)-Po:(your) Qu:(little) Ap:(cm king)
 your uncle, the king

b. si wawene pāneroneronea si kaḡio
 cm H:(woman) Qu:(search_{OV}-they) Ap:(cm H:(look-alike))
 ni tətow iti?i
 Po:(rm_{po} /cm H:(statue) Dem:(that)))
 the woman they were searching and searching for, the
 look-alike of that statue.

If Ap_{loo} occurs in a Subject or Possessor Noun phrase the Subject or Possessor relator is not repeated within Ap_{loo} .

58. (Ap_{loo} occurring in a Subject Noun phrase (within a Qualifying Verbal clause))

ndano pinaləle?an ne punti?in
 cm-H:(water) Qu:(P:(swim_{RV})) S:(rm_s /cm H:(Puntiin))
 iti?i se bidadari mana ḡkayanḡan
 Dem:(that) Ap:(cm H:(nymph)) Qu:(rm_r cm-Kayangan)))
 the water which used to be swum in by those Puntians, the
 nymphs from Kayangan

5.5. DESCRIPTIVE PHRASES

5.5.0. A Descriptive phrase (Des) is a construction consisting of either:

(i) An optional Degree tagmeme (Deg) followed by an obligatory Descriptive Head One tagmeme ($Hdes_1$) followed optionally by a Comparative One tagmeme (Cmp_1) or a Descriptive Complement (Com_{des}) or a referent tagmeme (R). This construction is called a Descriptive One phrase.

(ii) An obligatory Descriptive Head Two tagmeme ($Hdes_2$) followed by an obligatory Comparative Two tagmeme (Cmp_2). This construction is called a Descriptive Two phrase.

5.5.1. Descriptive One Phrase

5.5.1.1. Degree

The degree slot is expounded by one of the two adverbs of degree (adv_{deg}), *kasa* *very, much, most* or *talous* *too, exceedingly*.

The adverbs *kasa* and *talous* also have bound variants, *ka-* and *ta-* respectively, which are bound to the exponent of $Hdes_1$. The free and bound forms of each adverb are in free variation.

If Deg co-occurs with Cmp_1 or R it can only be expounded by *kasa* (either variant).

5.5.1.2. Descriptive Head One

$Hdes_1$ is expounded by a simple descriptive (*des*).

5.5.1.3. Comparative One

Cmp_1 is expounded by a Comparative R-A phrase ($R-A_{cmp}$). Rel_{cmp} is expounded by one of the two comparative relation markers, *wo* and *ta'an*, which are in free variation and both translate *than*. The Axis is expounded by a Noun phrase or Pronoun phrase.

5.5.1.4. Descriptive Complement

Com_{des} is expounded by a Descriptive Complement verb ($v_{des.com}$) which is obligatorily marked for Durative aspect, Non-past tense and any voice other than Subject voice (these verbal categories are described in section 8.1.1.).

5.5.1.5. Referent

The Referent slot is expounded by a Referent R-A phrase.

5.5.2. Descriptive Two Phrase

5.5.2.1. Descriptive Head Two

$Hdes_2$ is expounded by a comparative descriptive (des_{cmp}) which consists of a simple descriptive stem together with infix *-um-*, optionally modal *-peʔ* and obligatorily modal *-la*. The formation of comparative descriptives is illustrated:

- i. *ruməpəteʔla* *faster than* from *rəpət* *fast* + *-um-* + *-peʔ* + *-la*.
- ii. *mokiʔla* *smaller than* from *okiʔ* *small* + *-um-* + *-la*.

5.5.2.2. Comparative Two

Cmp₂ is expounded by a Noun phrase or a Pronoun phrase.

There is no apparent difference in meaning between the construction Hdes₁ +Cmp₁ and the construction Hdes₂ +Cmp₂.

Formal Statement:

$$\text{Des} \rightarrow \left[\begin{array}{l} \text{(i)} \quad (\text{Deg}) \quad +\text{Hdes}_1 \quad \left(+ \left\{ \begin{array}{l} \text{Cmp}_1 \\ \text{Com}_{\text{des}} \\ \text{R} \end{array} \right\} \right) \\ \text{(ii)} \quad \text{Hdes}_2 \quad +\text{Cmp}_2 \end{array} \right]$$

(i)

$$\text{Deg} : \text{adv}_{\text{deg}} \rightarrow \left[\begin{array}{l} \text{kasa}^{\wedge}\text{ka-} \\ \left\{ \begin{array}{l} \text{kasa}^{\wedge}\text{ka-} \\ \text{talous}^{\wedge}\text{ta-} \end{array} \right\} \end{array} \right] / \text{---} +\text{Hdes}_1 + \left[\begin{array}{l} \left\{ \begin{array}{l} \text{Cmp}_1 \\ \text{R} \end{array} \right\} \\ (\text{Com}_{\text{des}}) \end{array} \right]$$

Hdes₁ : des

Cmp₁ : R-A_{cmp} → Rel_{cmp} +Ax

Rel_{cmp} : rm_{cmp} → wo, ta'an

Ax : N, Pr

Com_{des} : v_{des.com}

R : R-A_r

(ii)

Hdes₂ : des

Cmp₂ : N, Pr

1. (Des containing Deg and Hdes₁)

a. kasa rəpət karəpət
 Deg:(very) H:(fast) or Deg:(very)-H:(fast)
 very fast or fastest

b. talous waŋko? təwaŋko?
 Deg:(too) H:(big) or Deg:(too)-H:(big)
 too big

2. (Des containing Hdes₁ and Cmp₁. In (a) Des expounds the Predicate Centre of a Descriptive clause. In (b) Des expounds a clause level

Manner slot. Des is bracketed in the free translation.)

a. mbalena nsəla ta'an əmbaleku
 T:(cm-house-his) P:(tm-Cen:(H:(big) Cmp:(rm_{cmp} cm-house-my)))
 His house is [bigger than my house].

b. nisia si matiŋkas rəpət wo niaku
 T:(he) P:(tm run_{sv}) M:(H:(fast) Cmp:(rm_{cmp} I))
 He runs [faster than me].

3. (Des containing Deg, Hdes₁ and Cmp₁. Des expounds the Predicate Centre of a Descriptive clause.)

bunəŋ ya'i kasa waŋun ta'an
 T:(flower this) P:(Deg:(very) H:(beautiful) Cmp:(rm_{cmp}
 əmbunəŋ iti'i
 cm-flower that))
 This flower is [much more beautiful than that flower].

4. (Des containing Com_{des}. Des expounds Predicate Centre)

a. si sumədət si waŋun palo'onaē
 T:(cm moon) P:(tm Cen:(H:(beautiful) Com:(see_{ov})))
 The moon is [beautiful to see]. (lit.: to be seen)

b. ndano iti'i kale'os paləle'an
 T:(cm-water that) P:(Deg:(very)-H:(good) Com:(bathe_{rv}))
 That water is [very good to bathe in]. (lit.: to be bathed in)

5. (Des containing Referent. Des expounds a Qualifier slot in a Predicate Noun phrase)

lalan ya'i lalan kasa waŋko?
 T:(road this) P:(H:(road) Qu:(Deg:(very) H:(big))
 wia ntoudano
 R:(rm_r cm-Tondano)))
 This road is the [biggest] road [in Tondano].

6. (Des containing Hdes₂ and Cmp₂. In (a) Des expounds a Manner slot and in (b) expounds a Predicate Centre)

a. nisia si matiŋkas ruməpəte'la niaku
 T:(he) P:(tm run_{sv}) M:(H:(faster)) Cmp:(I))
 He runs [faster than me].

b. ntoka iti'i rumakekəla ntoka ya'i
 T:(cm-mount that) P:(H:(higher)) Cmp:(cm-mount this))
 That mountain is [higher than this mountain].

5.5.3. Discontinuous Descriptive Phrase

As noted in section 5.8.4., a clause level Manner tagmeme expounded by a Descriptive phrase may occur inside a Predicate phrase. However, a Comparative One tagmeme obligatorily occurs in post-Predicate position even when the Head of the Descriptive phrase occurs within the Predicate. In the following example both Predicate and Manner tagmemes are discontinuous, as indicated by bracketing in the l/s translation. Identical numbers above brackets identify the components of each discontinuous phrase⁸:

7. nisia si kasa rəpət matɪŋkas wo niaku
 T:he ¹[P:tm]¹ ²[M:very fast]² ¹[run_{sv}]¹ ²[rm_{cmp} I]²
 He runs much faster than me.

5.6. SIMILITUDE PHRASES

5.6.0. A Similitude phrase (Sim) consists of an obligatory Head slot followed by an optional Characterisation slot (Ch).

5.6.1. Similitude Head

Head is expounded by a Similitude R-A phrase (R-A_{sim}) or by a similitude demonstrative (dem_{sim}).

Rel_{sim} is expounded by the Similitude relator *tanu as, like* and Ax is expounded by a Noun phrase or Pronoun phrase. When a Noun phrase occurs within R-A_{sim} the animate class/singular marker *si* functions to indicate a definite person or thing and in the English translation the definite article *the* is required, as in (1a) below. When comparison is made with a class in general, in which case English uses the indefinite article *a* followed by a singular noun, the animate class/plural marker *se* is used, as in (1b).

The similitude demonstratives are *tuana thus, like that* and *teinti'i like this*.

5.6.2. Characterisation

Characterisation slot is expounded by a Characterisation Noun phrase (N_{ch}) which contains only a Classifier tagmeme and a Head which is expounded by characterisation nouns (n_{ch}). These are described in section 8.1.2bii.

Formal Statement:

Sim \longrightarrow Hsim (+Ch)

Hsim : $\left\{ \begin{array}{l} R-A_{sim} \\ dem_{sim} \end{array} \right\}$

$R-A_{sim} \longrightarrow Rel_{sim} +Ax$

$Rel_{sim} : rm_{sim} \longrightarrow tanu$

$Ax : N, Pr$

$dem_{sim} \longrightarrow tuana, teinti'i$

Ch : $N_{ch} \longrightarrow Cs +Hn_{ch}$

$Hn_{ch} \quad n_{ch}$

- 1a. tanu si tuama iti'i *like that man*
 rm_{sim} cm man that
- b. tanu se tuama *like a man*
 rm_{sim} cm man

2. (Sim containing Hsim and expounding a Manner slot. Sim is enclosed in brackets in the free translation)

- a. si rai? toro mali?lip tanu niaku
 P:(tm neg can swim_{sv}) M:(rm_{sim} I)
 He cannot swim [like me].
- b. si matiŋkas tuana *He runs [like that].*
 P:(tm run_{sv}) M:(thus)

3. (Sim containing Hsim and occurring embedded within a Noun phrase)

si sakey tuana
 cm H:(guest) Qu:(thus)
 a guest like that or such a guest

4. (Sim containing Hsim and Ch. Sim expounds a Manner slot)

- a. si matiŋkas tanu se kuda ŋkarəpət
 P:(tm run_{sv}) M:(H:(rm_{sim} cm horse) Ch:(cm-swiftness))
 He runs [as fast as a horse].
- b. si matiŋkas tuana karəpət
 P:(tm run_{sv}) M:(H:(thus) Ch:(swiftness))
 He runs [as fast as that]. or He runs [so fast].

5.7. OBJECT COMPLEMENTS

5.7.0. An Object Complement (Com_O) consists of a Complementizer tagmeme (Cmz) followed by a Base (B).

5.7.1. Complementizer

Cmz is expounded by one of two complementizers (cmz). If the Base exponent is declarative then cmz is nu and if the Base exponent is interrogative then cmz is sa. Cmz is optional if followed by a declarative construction but obligatory if followed by an interrogative construction.

5.7.2. Complement Base

The Base of Com_O is treated here as being expounded by an Independent clause, which is either declarative or interrogative.⁹

Formal Statement:

$$\begin{array}{lcl}
 Com_O & \longrightarrow & Cmz + B \\
 Cmz & : & cm \longrightarrow \left[\begin{array}{c} nu \\ sa \end{array} \right] / \left[\begin{array}{l} B:declarative construction \\ B:interrogative construction \end{array} \right] \\
 B & : & IndCl
 \end{array}$$

Cmz is optional if B:declarative construction

In the following examples Com_O expounds Topic:

1. lo'oneamae nsa'ut əmbowosokan
P:(see_{OV})-S:(they)-Mod T:(cm-banana P:tm-ripe-Mod)
They saw (that) the bananas were really ripe.
2. kinaliŋa'aŋkumi nu witu mbanua iti'i bəwean
P:(hear_{RV})-S:(I)-Mod T:(cmz R:rm_R cm-village that P:ex
wəwene waŋun
Com_{ex}:woman beautiful)
I have heard that in the village there is a beautiful woman.
3. ndai' kəta'uanu nu nikoow si mamuali raja
P:(tm-neg know_{RV})-S:(you) T:(cmz P:you-Mod T:cm become king)
Don't you know that it is you who will become king?
4. wuiŋkula wia si ka'ampitəku sa wəwean lodey
P:(ask_{OV})-S:(I) R:(rm_R cm friend-my) T:(cmz P:ex Com:boat)
I asked my friend if there were any boats.

5. ndai? kəta?uaŋku sa wisa mbalena
 P:(tm-neg know_{rv})-S:(I) T:(cmz P:where T:cm-house-his)
I don't know where his house is.
6. naituru?na wia se tu?ana sa sapa
 P:(indicate_{iv})-S:(she) R:(rm_r cm parent-her) T:(cmz P:what
 minamuali
 T:happen_{sv})
She told her parents what had happened.

5.8. PREDICATE PHRASES

5.8.0. A Predicate phrase (P_p) expounds the Predicate tagmeme of any of the Verbal or Non-verbal clause types described in Chapter Three. P_p contains three tagmemes: an optional Topic Concord tagmeme (Tc), an optional Negative tagmeme (Neg) and an obligatory Centre (Cen). Predicate phrases in some clause types (Basic or derived) have different internal structure. These are described in the treatment of those clause types in Chapter Six.

Tc is expounded by a set of topic markers (tm), Neg is expounded by the negative particle (neg) *rai?~ra?i* and Predicate Centre is expounded by a Verb phrase or any of the other phrases which occur in Non-verbal clauses. The exponent of Centre is determined by the symbol subscripted to P_p , as described in section 4.1.1.

Formal Statement:

P_p	→	(Tc)	(+Neg)	+Cen
Tc	:	tm		
Neg	:	neg	→	<i>rai?~ra?i</i>
Cen	:	V, N, Des	

5.8.1. Topic Concord

Topic markers establish cross-reference between the Topic of the clause and the Predicate, marking the exponent of Topic Head as animate or inanimate (with the exception mentioned below). If Topic Head exponent is animate the topic marker further classifies it according to person and number. Topic markers are listed in Table V. If Topic is expounded by a pronoun the corresponding topic marker expounds Tc. If the Topic exponent is a noun it is marked as animate singular, animate plural or inanimate by *si*, *se* or *N-* respectively. *N-* is phonologically attached to the following word. The manifestations of *N-* and

changes undergone by following consonants are detailed in section 8.0j.

TABLE V: TOPIC MARKERS

ANIMATE

1 sing.	ku
2 sing.	ko
3 sing.	si
1 pl. incl.	kita
1 pl. excl.	key
2 pl.	kow
3 pl.	se

INANIMATE

N-

- 1a. niaku ku matiŋkas *I am running.*
T:(I) P:(tm run_{SV})
- b. nikey key matiŋkas *We are running.*
T:(we) P:(tm run_{SV})
- c. si tuama si matiŋkas *The man is running.*
T:(cm man) P:(tm run_{SV})
- d. si tuama wo si wəwene se matiŋkas
T:(cm man rm_{CO} cm woman) P:(tm run_{SV})
The man and the woman are running.
- e. nisea se matiŋkas *They are running.*
T:(they) P:(tm run_{SV})
- f. mpəpalən əpinənət *The door has been closed.*
T:(cm-door) P:(tm-close_{OV})
- g. mpaŋana ntiməpaŋ *The branch juts out.*
T:(cm-branch) P:(tm-protrude_{SV})

Tc is always optional in a Basic clause except that it is obligatory when Topic containing a pronoun or animate noun occurs in post-Predicate position (see 4.1.2.1.) or is deleted (see 4.1.3.2.).

2. (Omission of Topic Concord)

- a. mpəpalən pinənət *The door has been closed.*
T:(cm-door) P:(close_{OV})

- b. si asu winewe ni tuama
 T:(cm dog) P:(hit_{OV}) S:(rm_S/cm man)
The man hit the dog.

3. (Obligatory Topic Concord)

- a. si matiŋkas He is running.
 P:(tm run_{SV})
- b. si winewe ni tuama si asu
 P:(tm hit_{OV}) S:(rm_S/cm man) T:(cm dog)
The man hit the dog.

Although Tc may be present when Topic is expounded by a pronoun, their co-occurrence is not frequent, a Topic pronoun occurring only for emphasis (see 4.1.3.2.). The co-occurrence of Topic and Topic Concord has not been recorded for first person plural inclusive, i.e., the sequence *nikita kita... has not been observed.

There is one exception to the rule that topic marker agrees with the Head exponent of Topic. When Topic is expounded by a Quantitative Noun phrase the topic marker agrees with the noun expounding the Possessor Axis Head and not with the Head exponent. In the following example Head is expounded by an inanimate noun, waya *all*, but the topic marker se agrees with the possessor noun, tow *person*, which is animate:

4. mbaya ne tow se witu mbale
 T:(cm-H:(all) Po:(rm_{PO}/cm person)) P:(tm rm_R cm-house)
All the people are in the house.

5.8.2. Negative

Negative immediately follows Tc. If the topic marker is N- it is attached to neg.

- 5a. ku rai? matiŋkas I'm not running.
 P:(tm neg run_{SV})
- b. si tuama si rai? matiŋkas The man isn't running.
 T:(cm man) P:(tm neg run_{SV})
- c. mbale nda?i waŋko? The house isn't big.
 T:(cm-house) P:(tm-neg big)

5.8.3. Predicate Centre

The various phrases which expound Predicate Centre are described elsewhere in this chapter. Only the Noun phrase requires further mention here. When a Noun phrase expounds Cen it is characterised by

the obligatory absence of Classifier. In (6a) the noun *papa* is preceded by the topic marker *si* and not by the homophonous class marker. The function of *si* is shown in (6b) where it is separated from the Noun phrase by *Neg*.

- 6a. *nia* *si* *papaku* *He is my father.*
 T:(*he*) P:(tm *father-my*)
- 6b. *nia* *si rai'* *papaku* *He is not my father.*
 T:(*he*) P:(tm *neg father-my*)

5.8.4. Discontinuous Predicate Phrase

A Predicate phrase can be discontinuous if (i) it contains a Verb phrase with a Verbal Complement which follows clause level tagmemes (see 5.9.4.) or (ii) a Descriptive phrase or adverb occurs within it. Only the second type of discontinuity is dealt with here. In l/s translations of examples the inserted item is enclosed in brackets.

(a) A Descriptive phrase expounding a Manner slot can optionally occur within Pp (see 5.5.3.) provided that the Verb phrase expounding Centre does not contain the auxiliary *toro*. *Des* occurs immediately before *Cen*:

7. *si rai'* *rəpət* *matɨŋkas* *He isn't running fast.*
 P:tm *neg* [M:*fast*] *run_{SV}*

(b) Adverbs of groups a to d (see 4.2.4a-d) optionally occur within Pp, coming immediately before *Cen*:

8. *si* *ulit* *minamualimow* *ronkit*
 P:(tm [Adv:*true*] *Cen*:(*become_{SV}* *thief*))
He has really become a thief. or It is true that he has become a thief.

9. *si ra'imow* *tu'u* *pasina'unala* *si karel*
 P:(tm *neg-mod* [Adv:*definite*] *recognise_{OV}*)-S:(*she*) T:(cm *Karel*)
She definitely doesn't recognise Karel.

10. *si tuama* *si* *kakurala* *matuluŋ* *niaku*
 T:(cm *man*) P:(tm [Adv:*sometimes*] *help_{SV}*) O:(*I*)
The man sometimes helps me.

(c) Adverbs of group e (see 4.2.4e.) obligatorily occur within Pp:

11. *ku* *tare* *kumaala* *I've just eaten.*
 P:(tm [Adv:*just*] *eat_{SV}*)-Mod

12. *si* *ta'arəkan* *rai'* *wewenku*
 P:(tm [Adv:*almost*]-mod *neg hit_{OV}*)-S:(*I*)
I almost didn't hit him.

5.9. VERB PHRASES

5.9.0. A verb phrase (V) contains an optional Auxiliary tagmeme (Aux), an optional Degree tagmeme (Deg), an obligatory Head (Hv) and an optional Verbal Complement (Com_V).

Aux is expounded by the verbal auxiliary *toro can, may*. Deg is expounded by the two adverbs of degree *kasa very* and *talous too*. Hv is expounded by a verb. Com_V is expounded by either a Verbal Complement Noun phrase (Ncom_V) or a Verbal Complement clause (VComCl). Ncom_V is marked by the obligatory absence of Classifier. VComCl is described in section 6.1.9.

Formal Statement:

V	→	(Aux)	(+Deg)	+Hv	(+Com _V)
Aux	:	aux	→	toro	
Deg	:	adv _{deg}	→	kasa, talous	
Hv	:	v			
Com _V	:	$\left. \begin{array}{l} \text{Ncom}_V \\ \text{VComCl} \end{array} \right\}$			
		Ncom _V	→	Hn (+...)	

5.9.1. Auxiliary

The auxiliary *toro* can occur in all four Verbal clause classes. In Non-volitional clauses it occurs with verbs indicating ability and is apparently redundant, as in (1d):

- 1a. ko toro mae *You may go.*
 P:(tm Cen:(*may go*_{SV}))
- b. kapaya iti?i ndai?pe? .toro kaaneniu
 T:(*papaw that*) P:(tm-neg-mod Cen:(*may eat*_{OV}))-S:(*you*)
You may not eat those papaws yet.
- c. si ra?i toro mali?lip tanu niaku
 P:(cm neg Cen:(*can swim*_{SV})) M:(rm_{sim} I)
He cannot swim like me.
- d. si rai? (toro) kalo?an
 P:(tm neg Cen:(*can see*_{RV}))
He cannot be seen.

5.9.2. Degree

Functioning in Verb phrases *kasa* and *talous* do not have bound variants as they do in Descriptive phrases. These adverbs occur with verbs indicating emotional states. They thus occur with verbs of Non-volitional Battery Three (see 3.1.4.3.) and with Active verbs indicating emotions, such as *lalo long for* and *səsəl regret*.

Aux and Deg have not been observed to co-occur.

2a. si kasa kaupus ne tu'ana
 P:(tm Cen:(*very love*_{1V})) S:(rm_S/cm parent-her)
She was very much loved by her parents.

b. ku talous malalo se tu'aku
 P:(tm Cen:(*too yearn*_{SV})) O:(cm parent-my)
I long for my parents exceedingly.

5.9.3. Verbal Head

Head is expounded by verbs of any of the stem classes listed in section 3.1. Verb morphology is described in section 8.1.1.

5.9.4. Verbal Complement

Verbs which can take a Complement Noun phrase include:

muali	<i>become</i>	walui	<i>transform, turn into</i>
pelen	<i>choose</i>	sadia	<i>prepare</i>
edo	<i>take</i>	ɣaran	<i>name</i>
sawəl	<i>replace</i>	sina'u	<i>recognise</i>

Verbs which can take a Complement clause include:

keret	<i>call, summon</i>	ina'kut	<i>try</i>
loas	<i>allow</i>	sawaŋ	<i>help</i>
turu'	<i>teach</i>	kiwee	<i>request</i>
towo	<i>pretend</i>	ide'	<i>fear</i>

The Verbal Complement is separated from Hv by any post-Predicate nuclear tagmemes occurring within the clause. In the following examples the Verb phrase is bracketed in the l/s and free translations:

3. (Com_V expounded by Ncom_V)

a. ko edoŋkumow ka'awu
 P:tm [Cen:H:*take*_{OV}]-S:I-Mod [Com:*wife*]
I [will take] you [as (my) wife].

b. si pinelen kuntua
 P:tm [Cen:H:*choose*_{OV} Com:*head*]
He [was chosen as village head].

4. (Com_v expounded by VComC1)

a. se tinuru?na se oki? mēnikop sara?
 P:tm [Cen:H:teach_{OV}]-S:he T:cm child [Com:catch_{SV} fish]
 He [taught] the children [to catch fish].

b. ku kumeret si tuama mey wia
 P:tm [Cen:H:call_{SV}] O:cm man [Com:come_{SV} here]
 I [will call] the man [to come here].

c. se mapulāsan maatoan
 P:tm [Cen:H:promise_{SV} Com:meet_{SV}]
 They [promise (each other) to meet each other].

If Com_v is expounded by a clause the Predicate verb of this clause may also have a complement. Thus multiple embedding of Complement clauses is possible.

5. ku rumeo si tuama sumawan
 P:tm [Cen:H:order_{SV}] O:cm man [Com:[H:help_{SV}]
 si ka?ampitēna rumādey āmbale
 O:cm friend-his [Com:build_{SV} cm-house]]
 I [will tell] the man [[to help] his friend [build the house]].

5.10. CO-ORDINATION

5.10.0. This section describes co-ordination below the sentence level. At the clause level and at lower levels of the grammatical hierarchy various functional slots are here treated, not as being expounded solely by single fillers, but also by co-ordinated series of such fillers.* Thus co-ordinated series of phrases, for instance, may expound a slot otherwise expounded by a single phrase of the same type as the co-ordinated series.

* In the present analysis exponents are co-ordinated within functional slots. It would perhaps be preferable to regard co-ordination as always being co-ordination of tagmemes rather than co-ordination of exponents. A (simplified) formal statement of co-ordination would then be:

$$X:Y \quad +rm_{co} \quad +X:Y$$

rather than the present:

$$X:(Y \quad +rm_{co} \quad +Y)$$

Co-ordination of Noun phrases would still require special treatment. But rather than co-ordinated Noun phrases expounding one Head slot, co-ordinated Heads would occur, each expounded by a Noun phrase (but not by a noun - see note 10 to section 5.10.2.).

The co-ordinated series of fillers may be of any length, with a co-ordination relation marker occurring either between each member of the series or between the second last and last member of the series only. It should be mentioned that co-ordinated series of more than two members occur extremely rarely in texts with the exception of co-ordinated Noun phrases which are often longer. Co-ordinated Noun phrases are treated differently from other co-ordinated constructions in that they are regarded as expounding the Head of a Noun phrase rather than expounding the same slot as a single Noun phrase, for reasons explained in section 5.10.2.

There are two co-ordination relation markers (rm_{co}) functioning below the sentence level, which are *wo and* and *ka'apa or*.

Any tagmeme in which co-ordination is possible, with the exception of tagmemes expounded by Noun phrases, may be formally stated:

$$X : Y_1 ((+rm_{co}) +Y_2)^n +rm_{co} +Y_3$$

where X = the functional slot

Y = the exponential class

condition: in any repetition of Y_2 the presence or absence of immediately preceding rm_{co} is determined by its presence or absence before the first occurrence of Y_2 .

Here only co-ordinated R-A phrases and Noun phrases are further discussed and exemplified.

5.10.1. Co-Ordinated R-A Phrases

Referent, Subject and Possessor slots may be expounded by co-ordinated R-A phrases in the manner set out in the above statement.

A Referent slot can alternatively be expounded by an R-A phrase which contains co-ordinated Noun phrases within its Axis head, as in (12) below. Instrument R-A phrases cannot be co-ordinated but instead co-ordination occurs within the Axis Noun phrase, as in (13). Since the Object relator has zero manifestation, co-ordination within an Object tagmeme can be treated either as co-ordination of the R-A phrases or as co-ordination within the Axis Noun phrase. Co-ordination within Subject and Possessor tagmemes is always co-ordination of the R-A phrases and never of Noun phrases within the Axis Head since the Relator tagmeme must be repeated in co-ordination of these constructions.

1. (Co-ordinated Referent R-A phrases)

se toudano se mapa'yan witu numa wo
 T:(cm *Tondano*) P:(tm *work_{sv}*) R:((rm_r *cm-garden*) rm_{co})

witu ləpo
 (rm_r rice-field)
The Tondanese work in the gardens and in the rice fields.

2. (Co-ordinated Subject R-A phrases)

mbale siniwo ni mantik wo
 T:(cm-house) P:(build_{OV}) S:((rm_s/cm Mantik) rm_{CO})
 ne ka'ampitəna
 (rm_s/cm friend-his)
The house was built by Mantik and (by) his friends.

3. (Co-ordinated Possessor R-A phrases)

mbale ni matindas wo ni mogogunoy
 cm-H:(house) Po:((rm_{PO}/cm Matindas) rm_{CO} (rm_{PO}/cm Mogogunoi))
the house of Matindas and (of) Mogogunoi.

5.10.2. Co-Ordinated Noun Phrases

Co-ordinated Noun phrases are treated differently from other co-ordinated constructions in that they are regarded as expounding the Head of a Noun phrase rather than the same slot as a single Noun phrase. Hence an Axis slot cannot be expounded by co-ordinated Noun phrases but only by a single Noun phrase. This treatment appears necessary as co-ordinated Noun phrases may function as Head to the post-Head tagmemes described in section 5.4.¹⁰

Classifier tagmeme does not occur in a Noun phrase whose Head is expounded by co-ordinated Noun phrases, each phrase within Head containing its own Classifier.

Formal Statement:

$$N \longrightarrow Hn \quad (+\dots)$$

$$Hn : \quad N_1 \quad ((+rm_{CO}) +N_2)^n \quad +rm_{CO} \quad +N_3$$

Conditions on the repetition of N₂ are the same as those on Y₂ in the formal statement in section 5.10.0.

In the following examples Noun phrases in co-ordination are numbered consecutively. The numbers do not necessarily correspond to the numbers in the formal statement.

4. (Co-ordination of two Noun phrases, each containing Classifier and Head)

a. si tuama wo si wəwene the man and the woman
 N₁:(cm man) rm_{CO} N₂:(cm woman)

- b. si tuama ka'apa si wewene *the man or the woman*
 $N_1:(\text{cm man}) \text{ rm}_{\text{CO}} \quad N_2:(\text{cm woman})$
5. (Co-ordinated Noun phrases, each containing post-Head tagmemes)
 si asu wan'ko' ya'i wo si meon
 $N_1:(\text{cm H}:(\text{dog}) \text{ Qu}:(\text{big}) \text{ Dem}:(\text{this})) \text{ rm}_{\text{CO}} \quad N_2:(\text{cm H}:(\text{cat}) \text{ Qu}:(\text{little}) \text{ Dem}:(\text{that}))$
oki' iti'i
this big dog and that little cat
6. (Co-ordination of three Noun phrases)
- a. ndaaren embiir wo ntaadey
 $N_1:(\text{cm-vegetables}) \quad N_2:(\text{cm-rice}) \text{ rm}_{\text{CO}} \quad N_3:(\text{cm-corn})$
vegetables, rice and corn
- b. ndaaren wo mbiir wo ntaadey
 $N_1:(\text{cm-vegetables}) \text{ rm}_{\text{CO}} \quad N_2:(\text{cm-rice}) \text{ rm}_{\text{CO}} \quad N_3:(\text{cm-corn})$
vegetables and rice and corn

In the formal statement given above Head, expounded by co-ordinated phrases, may be followed by post-Head tagmemes. This formulation allows a tagmeme following Head to have reference to all Noun phrases expounding Head.

7. (Head expounded by co-ordinated Noun phrases followed by Po)

ŋkokoŋ wo ŋkere ni keke'
 $H:(N_1:(\text{cm-head}) \text{ rm}_{\text{CO}} \quad N_2:(\text{cm-face})) \text{ Po}:(\text{rm}_{\text{PO}}/\text{cm Keke})$
Keke's head and face

When an optional phrase level tagmeme follows a Head expounded by co-ordinated phrases, as in (7), structural ambiguity may result; the optional tagmeme may occur at the same level as Head, as in (8a), or may be embedded within the final Noun phrase expounding Head (8b).

- 8a. mbale wo noto ni papa
 $H:(N_1:(\text{cm-house}) \text{ rm}_{\text{CO}} \quad N_2:(\text{cm-car})) \text{ Po}:(\text{rm}_{\text{PO}}/\text{cm father})$
father's house and car
- b. mbale wo noto ni papa
 $H:(N_1:(\text{cm-house}) \text{ rm}_{\text{CO}} \quad N_2:(\text{cm-H}:(\text{car}) \text{ Po}:(\text{rm}_{\text{PO}}/\text{cm father})))$
the house and father's car

In a co-ordinated sequence of Noun phrases the Head of either phrase may itself contain co-ordinated phrases. In this case ambiguity may result; co-ordinated phrases may expound the Head of either N_1 or

N_2 . In (9a) the first Noun phrase contains co-ordinated phrases within its Head. In (9b) co-ordination occurs within the Head of the second phrase.

9a. taadey ka'apa kaput wo tale?
 $N_1:(N_1:(corn) rm_{CO} N_2:(cassava)) rm_{CO} N_2:(taro)$
(corn or cassava) and taro

b. taadey ka'apa kaput wo tale?
 $N_1:(corn) rm_{CO} N_2:(N_1:(cassava) rm_{CO} N_2:(taro))$
corn or (cassava and taro)

A Noun phrase may be co-ordinated with a Pronoun phrase:

10. niaku wo si jon *Djon and I*
 $Pr:(I) rm_{CO} N:(cm Djon)$

When a Pronoun phrase is co-ordinated with a Noun phrase it is common for a plural pronoun to occur instead of a singular pronoun:

11. nikey wo si jon
 $Pr:(we) rm_{CO} N:(cm Djon)$
Djon and I or Djon and we

Other examples of co-ordination:

12. (Co-ordinated Noun phrases within the Axis Head of a Referent R-A phrase)

se tow waki kakas wo koya
 $cm H:(person) Qu:(rm_P H:(N_1:(Kakas) rm_{CO} N_2:(Koja)))$
people from (or in) Kakas and Koja

13. (Co-ordinated Noun phrases within the Axis Head of an Instrument R-A phrase)

si marəput wo mbatu wo ntana?
 $P:(tm pelt_{SV}) I:(rm_I H:(N_1:(cm-stone) rm_{CO} N_2:(cm-earth)))$
He pelted (them) with stones and dirt.

14. (Head expounded by co-ordinated Noun phrases followed by Po expounded by co-ordinated R-A phrases)

mbinukal ka'apa nutək ni sapi
 $H:(N_1:(cm-marrow) rm_{CO} N_2:(cm-brain)) Po:((rm_{PO}/cm ox$
 $ka'apa ni wi'o$
 $rm_{CO} (rm_{PO}/cm boar))$
brain or marrow of ox or boar

CHAPTER SIX

6. DERIVED CLAUSES AND FURTHER BASIC CLAUSE TYPES

6.0. A derived clause is a construction which can be described in terms of a transformation from some other clause type. A necessary condition for such a transformation is that the derived clause have the same meaning as the clause from which it is derived.¹

Treating some clauses as being transformationally derived from others has a number of advantages over the description of each clause type separately. First, it reveals the underlying relationships between such clause types. Treating two semantically identical constructions as unrelated on the grounds that there exist at least two structural differences between them would result in a less insightful description by failure to reveal their underlying similarity.

Second, the transformational method results in a simplification of grammatical description. By describing Basic clauses and then specifying the changes such constructions can undergo we remove the necessity for a full and separate description of each derived clause type. For instance, Pro-Topic clauses can be derived from any Basic Verbal clause by the application of a transformational rule. There is thus a Pro-Topic clause type corresponding to every Basic Verbal clause type. However, it is not necessary to describe each sub-type of Pro-Topic clause separately since the structure of each is specified by the Pro-Topic transformation undergone by any of the Verbal clause types described in Chapter Three. On the other hand, failure to relate Pro-Topic clauses to Basic clauses would require the separate description of each sub-type and this alone would result in a doubling of the number of verbal clause types to be described.

In section 6.2. are described several Basic clause types. These types differ considerably from the clauses described in Chapter Three,

both at the clause level and at lower levels. Because of this, any attempt to describe these clauses in Chapter Three would complicate the description of clause exponents and permutations in Chapter Four and would require the abandonment of useful generalisations. For instance, these clauses have Predicate exponents which differ considerably from the Predicate phrase described in section 5.8. Any attempt to expand or modify section 5.8. to account for these differences would result in a confusing and weakened description, especially because of the constant requirement for noting exceptions to statements which otherwise apply to all Basic clauses.

6.1. DERIVED CLAUSES

6.1.0. Derived clauses are either Independent (able to expound the Base of a Simple sentence) or Dependent (not able to expound the Base of a Simple sentence). The Independent derived clauses are the Conjoined, Compound, Imperative, Interrogative Predicate and Interrogative Tagmeme types. Of these the first two, while themselves being independent constructions, each consist of two clauses which could be referred to as Interdependent clauses.

The Dependent derived clause types are the Sequential, Pro-Topic, Qualifying, Nominalised and Verbal Complement clauses.

All clauses described in this section derive from Basis clauses. In addition, some can also be derived from other derived clauses, i.e., derivational transformations can be applied directly to Basic clauses or, in some cases, to the output of a previous derivational transformation. Here only derivation from Basic clauses and from Conjoined clauses is described. All derived declarative clause types are derivable from Conjoined clauses.

For each clause type is given: (i) The Basic clause type or types from which it is derived. (ii) A description of the structural changes involved in the transformation. (iii) A formal statement of the structure of the derived clause. (iv) Examples of Basic clauses and the clauses derived from them. (v) A description of the derivation from a Conjoined clause where this derivation can occur.

An exception to the above treatment are the interrogative clause types (see 6.1.6. and 6.1.7.), which result from the application of obligatory derivational rules. These rules specify that when a construction has a certain structural description it obligatorily undergoes the transformation and hence does not itself have surface manifestation. In the treatment of these derived clauses the transformation itself is not described, only the structure of the resultant derived clauses.

6.1.1. Conjoined Clauses

A Conjoined clause (CjCl) is a construction derived from two separate Basic Verbal clauses which must have identical Topics and may share other identical tagmemes.

The derivation involves the deletion of one of each pair of identical tagmemes. Any tagmeme originally present in only one of the clauses occurs in CjCl immediately following the Predicate with which it is in construction. Any tagmeme originally present in both clauses occurs in CjCl either before the first Predicate or after the second Predicate according to whether it would, in a Basic clause occur before or after Predicate. Thus, Topic occurs before the first Predicate and post-Predicate nuclear tagmemes derived from both clauses occur following the second Predicate and any tagmemes governed solely by it.

A further requirement is that both original clauses have identity of all tagmemes within Predicate preceding the verb. All such tagmemes are deleted from the Predicate occurring second in CjCl. This Predicate, represented (=P) in the formal statement and in l/s translations, is then expounded directly and solely by a verb. The two Predicates must contain different verbs. The verbs can have the same or different voice inflection and the Topic exponent can hold the same or a different case relationship to each verb.

In the formal statement and in l/s translations brackets enclose Predicates and any tagmemes in construction solely with them.

Formal Statement:

CjCl	→	T	+[P (+X)]	+[P (+Y)]	(+Z)
=P	:	v			
X,Y	=	any clause level tagmeme or tagmemes in construction with the immediately preceding Predicate.			
Z	=	any clause level tagmeme or tagmemes in construction with both Predicates.			

In each of the following examples two Basic clauses are given followed by the Conjoined clause derived from them.

1.

Cl 1: si tuama si matodo roda
 T:(cm man) P:(tm push_{sv}) O:(cart)
The man is pushing the cart.

Cl 2: si tuama si masusu lalan
 T:(cm man) P:(tm go-along_{sv}) O:(road)
The man is going along the road.

⇒ si tuama si matodo roda masusu lalan
 T:(cm man) [P:(tm push_{SV}) O:(cart)] [=P:(along_{SV}) O:(road)]
The man is pushing the cart along the road.

2.

Cl 1: si tuama si rimubər
 T:(cm man) P:(tm sit_{SV})
The man is sitting.

Cl 2: si tuama si rimeten niaku
 T:(cm man) P:(tm next-to_{SV}) O:(I) -
The man is next to me.

⇒ si tuama si rimubər rimeten niaku
 T:(cm man) [P:(tm sit_{SV})] [=P:(next-to_{SV}) O:(I)]
The man is sitting next to me.

3.

Cl 1: si tuama si simenƙot
 T:(cm man) P:(tm sail_{SV})
The man was sailing.

Cl 2: si tuama si minake lodeyna
 T:(cm man) P:(tm use_{SV}) O:(boat-his)
The man was using his boat.

⇒ si tuama si simenƙot minake lodeyna
 T:(cm man) [P:(tm sail_{SV})] [=P:(use_{SV}) O:(boat his)]
The man was sailing in his boat.

4.

Cl 1: ku kimətor kapaya wo mpaagi?
 P:(tm cut_{SV}) O:(papaw) I:(rm₁ cm-knife)
I cut the papaw with a knife.

Cl 2: ku minaparua kapaya wo mpaagi?
 P:(tm cause-two_{SV}) O:(papaw) I:(rm₁ cm-knife)
I divided the papaw in two with a knife.

⇒ ku kimətor minaparua kapaya wo mpaagi?
 [P:(tm cut_{SV})] [=P:(cause-two_{SV})] O:(papaw) I:(rm₁ cm-knife)
I cut the papaw in two with a knife.

5.

Cl 1: si kuda sinakean ni tuama
 T:(cm horse) P:(ride_{rv}) S:(rm_s/cm man)

The horse is being ridden by the man.

Cl 2: si kuda masosor əntoka
 T:(cm horse) P:(ascend_{sv}) O:(cm-hill)

The horse is going up the hill.

⇒ si kuda sinakean ni tuama masosor
 T:(cm horse) [P:(ride_{rv}) S:(rm_s/cm man)] [=P:(ascend_{sv})
 əntoka
 O:(cm-hill)]

The horse is being ridden up the hill by the man.

A Conjoined clause may undergo the same declarative transformations as a Basic clause. Consequently CjCl can combine with another clause (either a Basic clause or another CjCl) in the derivation of CjCl. In the following example CjCl is derived from two clauses, the first of which is Conjoined and the second Basic:

6.

Cl 1: si mamananu məwareŋ laa mana mbanuana
 T:(cm Mamananu) [P:(return_{sv})] [=P:(go_{sv})] R:(rm_r cm-village-his)

Mamananu is going back to his village.

Cl 2: si mamananu məwaliwali si wulan
 T:(cm Mamananu) P:(accompany_{sv}) O:(cm Wulan)

Mamananu is accompanying Wulan.

⇒ si mamananu məwareŋ laa mana mbanuana
 T:(cm Mamananu) [[P:(return_{sv})] [=P:(go_{sv})] R:(rm_r cm-village-his)]
 məwaliwali si wulan
 [=P:(accompany_{sv}) O:(cm Wulan)]

Mamananu is returning to his village together with Wulan.

6.1.2. Compound Clauses

A Compound clause (ComCl) is a construction derived from two Basic Verbal clauses which must have identical Topics but which may share no other identical non-Predicate nuclear tagmemes.

The two clauses must, in addition to identical Topics, have in common all tagmemes within Predicate preceding the verb (i.e., Tc and Neg in

the Predicate phrase and Aux and Deg in the Verb phrase). The two clauses may have different or identical verbs but both verbs must focus the same case relationship. At least one of the original clauses must contain a post-Predicate nuclear tagmeme. This requirement is further discussed below.

The derivation involves deletion from the second clause of Topic, deletion from the second Predicate of all tagmemes preceding the verb and linking of the two clauses by a co-ordination relator. Thus the second Predicate, represented by (=P) in the formal statement and in l/s translations, is expounded solely by a verb.

Any nuclear tagmeme originally present in only one of the clauses occurs immediately following the Predicate with which it is in construction.

Formal Statement:

$$\text{ComCl} \rightarrow \text{T} + \text{P} + \begin{bmatrix} \text{X} \\ \text{(X)} \end{bmatrix} + \text{rm}_{\text{CO}} + =\text{P} + \begin{bmatrix} \text{(Y)} \\ \text{Y} \end{bmatrix}$$

=P : v

X,Y = any clause level nuclear tagmeme or tagmemes in construction with the immediately preceding Predicate.

Each of the following examples gives two Basic clauses and the Compound clause derived from them.

1.

Cl 1: se tow se masereti roda
T:(cm person) P:(tm drive_{SV})-Mod O:(cart)

The people drive carts.

Cl 2: se tow se makelanite
T:(cm person) P:(tm walk_{SV})-Mod

The people just walk.

→ se tow se masereti roda ka?apa makelanite
T:(cm person) P:(tm drive_{SV})-Mod O:(cart) rm_{CO} =P:(walk_{SV})-Mod

The people drive carts or just walk.

2.

Cl 1: se tow se makaan kaan
T:(cm person) P:(tm eat_{SV}) O:(rice)

The people are eating rice.

Cl 2: se tow se makoo' timpa'
 T:(cm person) P:(tm drink_{SV}) O:(palm wine)
The people are drinking palm wine.

⇒ se tow se makaan kaan wo makoo'
 T:(cm person) P:(tm eat_{SV}) O:(rice) rm_{CO} =P:(drink_{SV})
 timpa'
 O:(palm wine)
The people are eating rice and drinking palm wine.

3.

Cl 1: ku rai' sumewa wale
 P:(tm neg rent_{SV}) O:(house)
I won't rent a house.

Cl 2: ku rai' mae waki hotel
 P:(tm neg go_{SV}) R:(rm_R hotel)
I won't go to a hotel.

⇒ ku rai' sumewa wale ka'apa mae waki hotel
 P:(tm neg rent_{SV}) O:(house) rm_{CO} =P:(go_{SV}) R:(rm_R hotel)
I won't rent a house or go to a hotel.

4.

Cl 1: ko rai' toro lumi'lip witu nso'so'an
 P:(tm neg may swim_{SV}) R:(rm_R cm-river)
You may not swim in the river.

Cl 2: ko rai' toro ma'yaŋ witu lalan
 P:(tm neg may play_{SV}) R:(rm_R road)
You may not play on the road.

⇒ ko rai' toro lumi'lip witu nso'so'an ka'apa
 P:(tm neg may swim_{SV}) R:(rm_R cm-river) rm_{CO}
 ma'yaŋ witu lalan
 =P:(play_{SV}) R:(rm_R road)
You may not swim in the river or play on the road.

5.

Cl 1: mbale naiwaŋker ni papa
 T:(cm-house) P:(sell_{IV}) S:(rm_S/cm father)
The house was sold by father.

Cl 2: mbale tinələs ni mantik
 T:(cm-house) P:(buy_{OV}) S:(rm_S/cm Mantik)
The house was bought by Mantik.

→ mbale naiwan̄ker ni papa wo tineles
 T:(cm-house) P:(sell_{1V}) S:(rm_S/cm father) rm_{CO} =P:(buy_{OV})
 ni mantik
 S:(rm_S/cm Mantik)
The house was sold by father and bought by Mantik.

The formal statement for ComCl requires the occurrence of at least one nuclear tagmeme which is in construction with only one Predicate. If no such tagmeme occurs the construction is treated as a Basic clause whose Predicate contains co-ordinated verbs. This contrasts with ComCl in which a post-Predicate tagmeme cannot be governed by both verbs. In (6) is illustrated a Basic clause containing co-ordinated verbs. This is expanded in (7) by the addition of a Referent tagmeme governed by both verbs. In (8) is illustrated a Compound clause in which each verb governs a different Referent.

6. se toudano se mən̄uma wo mələpo
 T:(cm Tondano) P:(tm work-garden_{SV} rm_{CO} work-field_{SV})
The people of Tondano work the gardens and work the rice fields.

7. se toudano se mən̄uma wo mələpo
 T:(cm Tondano) P:(tm work-garden_{SV} ro_{CO} work-field_{SV})
 witu li'lik əmbanua
 R:(rm_R edge rm_{PO}/cm-village)
The Tondanese work the gardens and work the rice fields around the town.

8. se toudano se mən̄uma witu li'lik əmbanua
 T:(cm Tondano) P:(tm garden_{SV}) R:(rm_R edge rm_{PO}/cm-village)
 wo mələpo witu tawi lour
 rm_{CO} =P:(work-field_{SV}) R:(rm_R near lake)
The Tondanese work the gardens around the town and work the rice fields near the lake.

ComCl can also derive from the compounding of two Conjoined clauses or from the compounding of a Conjoined clause and a Basic clause. In the following example ComCl derives from two Conjoined clauses.

9. si keke? si mae kuməməs labuŋ
 T:(cm Keke) [P:(tm go_{SV})] [=P:(wash_{SV}) O:(clothes)]
 ka?apa mae moas piriŋ
 rm_{CO} [=P:(go_{SV})] [=P:(wash_{SV}) O:(dish)]
Keke goes washing clothes or goes washing dishes.

2. ntinələsənala He has bought (it).
 P:(tm-buy_{OV})-S:(he)-Mod
 ⇒ tələsənala itu When he had bought it ...
 P:(buy_{OV})-S:(he)-Mod T:(it)
3. si ema məwareŋi waki walena
 T:(cm Emma) P:(tm return_{SV})-Mod R:(rm_R house-her)
 Emma is returning to her house.
 ⇒ məwareŋi si ema waki walena
 P:(return_{SV})-Mod T:(cm Emma) R:(rm_R house-her)
 or məwareŋi waki walena si ema
 P:(return_{SV})-Mod R:(rm_R house-her) T:(cm Emma)
 While Emma was returning to her house ...
4. si ema minəpətaʔula wia se tuʔana
 T:(cm Emma) P:(cause-know_{SV})-Mod R:(rm_R cm parent-her)
 nu si jon si raraʔan
 O:(cmz T:(cm Djon) P:(tm sick))
 Emma has told her parents that Djon is sick.
 ⇒ məpətaʔula wia se tuʔana si ema
 P:(cause-know_{SV})-Mod R:(rm_R cm parent-her) T:(cm Emma)
 nu si jon si raraʔan
 O:(cmz T:(cm Djon) P:(tm sick))
 When Emma had told her parents that Djon was sick ...
5. mpaagiʔ naikəraʔragəla The knife has fallen.
 T:(cm-knife) P:(fall_{IV})-Mod
 ⇒ kəraʔragəla mpaagiʔ When the knife fell ...
 P:(fall_{IV})-Mod T:(cm-knife)

In the absence of contrastive features a SeqCl may be formally identical with the Basic clause from which it derives. For instance, if Topic is expounded by Com_O it obligatorily follows Predicate in both the Basic and derived clause. The following construction is either a Basic clause or SeqCl depending on distribution:

6. kaliŋaʔaŋkumi nu si mama si raraʔan
 P:(hear_{RV})-S:(I)-Mod T:(cmz T:(cm mother) P:(tm sick))
 Basic clause: I hear that mother is sick.
 SeqCl: When I had heard that mother was sick ...

A Conjoined clause (see 6.1.1.) can be transformed into a Conjoined Sequential clause (CjSeqCl). The derivation is as described above for the transformation from a Basic clause except for the position of Topic.

If a tagmeme occurs in CjCl which is in construction with both Predicates Topic must follow it. If no such tagmeme occurs Topic precedes the second Predicate and follows the first Predicate and any tagmeme in construction solely with it.

Formal Statement:

$$\text{CjSeqCl} \rightarrow \left\{ \begin{array}{l} [P (+X)] +T +[=P (+Y)] \\ [P (+X)] +[=P (+Y)] +Z +T \end{array} \right\}$$

Each of the following examples illustrates a Conjoined clause and the Conjoined Sequential clause derived from it.

7. si mantik minareŋi maaliali sinaput
 T:(cm Mantik) [P:(return_{SV})-Mod] [=P:(carry_{SV}) O:(wrap_{OV})]
Mantik returned carrying a parcel.

⇒ mareŋi si mantik maaliali sinaput
 [P:(return_{SV})-Mod] T:(cm Mantik) [=P:(carry_{SV}) O:(wrap_{OV})]
When Mantik returned with the parcel ...

8. si kimətor minaparua kapaya
 [P:(tm cut_{SV})] [=P:(cause-two_{SV})] O:(papaw)
He has cut the papaw in two.

⇒ kumətor maparua kapaya sia
 [P:(cut_{SV})] [=P:(cause-two_{SV})] O:(papaw) T:(he)
When he had cut the papaw in two ...

6.1.4. Pro-Topic Clauses

Any Basic Verbal clause can be transformed into a Pro-Topic clause (P-TC1).

The derivation involves the obligatory placement of Topic in post-Predicate position, in accordance with the statement in section 4.1.2.1. In P-TC1 Topic cannot be expounded by a Pronoun phrase. Thus, if P-TC1 derives from a Basic clause whose Topic exponent is a Pronoun phrase, the transformation involves the obligatory deletion of Topic. Likewise, if the derivation is from a Basic clause whose Topic has been deleted in accordance with the statement in section 4.1.3.2., P-TC1 (unlike a Sequential clause) has no Topic tagmeme. The place of Topic before Predicate is taken by a Pro-Topic tagmeme (P-T). Pro-Topic is expounded by a subclass 2 pronoun which specifies the class and (if animate) the person and number of the Topic participant. Thus the obligatory deletion of Topic as noted above does not result in the irrecoverable loss of a lexical item (a pronoun) since this is specified by the Pro-Topic. Topic Concord is deleted from the Predicate phrase. Verbal inflection is described in section 8.1.1. (see especially 8.1.1.2.1a.).

Formal Statement:

$$P\text{-TC1} \rightarrow P\text{-T} + P + X \begin{Bmatrix} +T & +Y \\ +Y & +T \end{Bmatrix}$$

P-T : pr_2

P : Pp \rightarrow (Neg) +Cen

T : N, Qt, Com₀

X = Subject, Object

Y = any other nuclear tagmeme or tagmemes.

condition: any tagmeme (Object or Topic) expounded by Qt or Com₀ follows all other nuclear tagmemes.

P-TC1 occurs within the Margin of a Subordinating sentence (see 7.2.4.) or the Base Two slot of a Sequential sentence (see 7.2.6.).

In the following examples P-TC1 expounds Base Two of a Sequential sentence, following the co-ordination relator wo.

1. si kapten si timumpami wia ntana?
 T:(cm captain) P:(tm descend_{SV})-Mod R:(rm_r cm-land)
The captain disembarked.

⇒ wo sia tumumpami si kapten wia ntana?
 rm_{CO} P-T:(he) P:(descend_{SV})-Mod T:(cm captain) R:(rm_r cm-land)
...and then the captain disembarked.

2. si naikəsawutəla wu?uk
 P:(tm pluck_{1V})-Mod O:(hair)
He plucked out a hair.

⇒ wo sia kəsawutəla wu?uk
 rm_{CO} P-T:(he) P:(pluck_{1V})-Mod O:(hair)
and then he plucked out a hair.

3. ndano pinayosanamae lawas
 T:(cm-water) P:(swing-round_{RV})-S:(he)-Mod O:(hand)
He swung his hand around in the water.

⇒ wo itu payosanamae lawas əndano
 rm_{CO} P-T:(it) P:(swing-round_{RV})-S:(he)-Mod O:(hand) T:(cm-water)
...and then he swung his hand around in the water.

4. si wəwene si limila? wia si tuama "..."
 T:(cm woman) P:(tm say_{SV}) R:(rm_r cm man) O:(Qt)
The woman said to the man "..."

⇒ wo sia lumila? si wəwene wia si tuama "..."
 rm_{CO} P-T:(she) P:(say_{SV}) T:(cm woman) R:(rm_r cm man) O:(Qt)
...and then the woman said to the man "..."

Deletion of tagmemes from P-TCl is dealt with in section 7.2.6.2. It is only noted here that Pro-Topic is obligatorily absent if Topic is expounded by a Quote, as in (5), and optionally absent if Topic is expounded by an Object Complement (6). If Pro-Topic is present in the latter case it is expounded by *itu* (7).

5. wo wuyənala kaʔa ko makeret
 rm_{CO} P:(ask_{OV})-S:(he)-Mod T:(why you call)
 ...and then he asked "Why are you calling out?" .
6. wo tare sinaʔuaneala nu
 rm_{CO} Adv:(just) P:(recognise_{RV})-S:(they)-Mod T:(cmz
 si rajanea si winunuʔneala
 P:(cm king-their) T:(cm kill_{OV}-they-mod))
 ...and only then did they realise that it was their king whom
 they had killed.
7. wo itu loʔonala se wəwene se maləleʔ
 rm_{CO} P-T:(it) P:(see_{OV})-S:(he)-Mod T:(T:cm woman P:tm bathe_{SV})
 ...and then he saw that women were bathing.

A Conjoined Pro-Topic clause, as illustrated in (8) and (9), is derived from a Conjoined clause by a transformation similar to that given for Conjoined Sequential clauses (see 6.1.3.).

8. wo sia iseret witu ŋkareta
 rm_{CO} P-T:(he) [P:(drive_{1V}) R:(rm_R cm-carriage)]
 ipaledoŋ wia mbanua
 [=P:(take-around_{1V}) R:(rm_R cm-country)]
 ...then he was driven in a carriage around the country.
9. wo sea kumawokəla sumoup se woley
 rm_{CO} P-T:(they) [P:(climb_{SV})-Mod Adv:(again)] T:(cm monkey)
 mae medo lansot
 [[=P:(go_{SV})] [=P:(fetch_{SV}) O:(fruit sp.)]]
 ...then the monkeys climbed up again to go and get lansots.

6.1.5. Imperative Clauses

An Imperative clause (ImpCl) derives from a Basic clause which indicates a direct instruction. Conditions are that the clause refers to future action and that the subject, or causer in a Causative construction, is expressed by a second person pronoun.

Derivation involves Topic permutation in accordance with the statement in section 4.1.2.1. A Topic Noun phrase remains unchanged but if the

Topic exponent is pronominal it changes to pronoun subclass 2. A Basic clause with absent Topic and in which the Topic participant is identified by a topic marker (see 4.1.3.2.) is transformed into an Imperative clause with a Topic expounded by a subclass 2 pronoun, there being no topic marker in ImpCl. This pronoun can be inanimate, as in (2) below. As in a Sequential clause, a Topic pronoun may be necessary to identify the Topic participant and implies no emphasis as it does in a Basic clause. In a Subject voice ImpCl the Topic exponent can only be a second person (singular or plural) pronoun.

Predicate becomes an Imperative Predicate (P_{imp}). P_{imp} is expounded by an Imperative Predicate phrase (Pp_{imp}) which contains two tagmemes: an optional Prohibitive slot (Ph) expounded by the prohibitive particle *tea'vte'a don't*, and an obligatory Centre.

The participant being commanded (subject in an Active clause and causer in a Causative clause) is rarely expressed. Hence Topic is usually absent in a Subject voice construction and Subject tagmeme in a non-Subject voice construction.

An obligatory change in verbal inflection in prohibitive constructions is described in section 8.1.1.2.lg.

Formal Statement:

$$\text{ImpCl} \longrightarrow P_{imp} + X \left\{ \begin{array}{l} +T \quad +Y \\ +Y \quad +T \end{array} \right\}$$

$$P_{imp} : Pp_{imp} \longrightarrow (\text{Ph}) +\text{Cen}$$

$$\text{Ph} : \text{ph} \longrightarrow \text{tea'vte'a}$$

$$T : N, Pr_2, Qt, Com_0$$

$$X = \text{Subject, Object}$$

$$Y = \text{any other nuclear tagmeme or tagmemes.}$$

condition: any tagmeme (Topic or Object) expounded by Qt or Com_0 follows all other nuclear tagmemes.

1. ko tumiŋkasow rəpət *You will run fast.*
 P:(tm run_{sv})-Mod M:(fast)
 ⇒ tumiŋkasow rəpət *Run fast!*
 P:(run_{sv})-Mod M:(fast)
2. laanumi *You will go and fetch (it).*
 P:(go_{ov})-S:(you)-Mod
 ⇒ laani itu *Go and fetch it!*
 P:(go_{ov})-Mod T:(it)
3. kita edomumomi tieu tarekan
 P:(tm fetch_{1v})-S:(you)-Mod O:(pig) Te:(today)
 You will bring pigs for us today.

- edomomi tiey kita tarekan
 P:(*fetch*_{1V})-Mod O:(*pig*) T:(*we*) Te:(*today*)
Bring pigs for us today!
4. lila'mula wia si wəwene "taruma kase"
 P:(*say*_{1V})-S:(*you*)-Mod R:(*rm*_R *cm woman*) T:(*thank you*)
You will say "thank you" to the woman.
- lila'la wia si wəwene "taruma kase"
 P:(*say*_{1V})-Mod R:(*rm*_R *cm woman*) T:(*thank you*)
Say "thank you" to the woman!
5. si rai' weanu kayu
 P:(*tm neg give*_{RV})-S:(*you*) O:(*wood*)
You will not give him any wood.
- tea' pəwəwean kayu sia
 P:(*ph give*_{RV}) O:(*wood*) T:(*he*)
Don't give him any wood!
6. key pəpəta'umula nabar
 P:(*tm cause-know*_{OV})-S:(*you*)-Mod O:(*cm-news*)
You will tell us the news.
- pəpəta'ula nabar key
 P:(*cause-know*_{OV})-Mod O:(*cm-news*) T:(*we*)
Tell us the news!

The participant being commanded is usually expressed only in a mild imperative which includes the modal *-ke please* (7) but occasionally occurs also in a stronger imperative (8).

- 7a. tumumpakemi kow
 P:(*descend*_{SV})-Mod T:(*you*)
Please come down!
- b. lənta'anukemi sa'ut
 P:(*drop*_{RV})-S:(*you*)-Mod O:(*banana*)
Please drop (me) a banana!
8. lo'onumae si mama
 P:(*look*_{OV})-S:(*you*)-Mod T:(*cm mother*)
Look at mother!

Topic in a non-Subject voice construction is deleted in accordance with the statement in section 4.1.3.2. Unless context indicates otherwise an omitted Topic refers to first person:

9. weani kopi wo roti
 P:(*give*_{RV})-Mod O:(*coffee rm*_{CO} *bread*)
Give (us) coffee and bread!

10. te'a pəwəwee witu
 P:(ph put_{iv}) R:(there)
Don't put (me) in there!

A Subject voice Imperative clause with a tagmeme expressing O' does not indicate a command but is rather a mild imperative, usually indicating a suggestion of action to the subject:

11. sumiwola wale waŋko? wia
 P:(make_{sv})-Mod O:(house big) R:(here)
Why don't you build a big house here. or
You should build a big house here.

However, Subject voice gives a command if there is no tagmeme expressing Objective case, i.e., if there is no underlying O', as in (1) above, or if the tagmeme expressing O' is deleted, as can happen with the 'pseudo-intransitive' verbs mentioned in section 4.1.3.1. A Subject voice construction in the latter case, as in (12a), is replaced by some other voice when O' is expressed (12b):

- 12a. kumaanow Eat!
 P:(eat_{sv})-Mod
- b. kaanən kaan ya'i Eat this rice!
 P:(eat_{ov}) T:(rice this)

Verbal Imperative clauses derive from all classes of Basic Verbal clauses except Non-volitional clauses. The only Non-verbal Imperative clause is the Descriptive Imperative clause. This occurs only in the prohibitive and the adverb of degree talousʋta- too is obligatory:

13. tea' talewo? Don't be bad!
 P:(ph too-bad)

6.1.6. Interrogative Predicate Clauses

Any Topic-Comment clause whose Predicate Centre is expounded by an interrogative word (int) is obligatorily transformed into an Interrogative Predicate clause (IntPredCl). Any interrogative word can expound the Interrogative Predicate. Topic follows Predicate and is expounded by a Noun phrase or by a Pronoun phrase whose Head exponent is a subclass 2 pronoun. The Topic Noun phrase frequently contains a Nominalised clause as Head exponent.

With most Predicate fillers IntPredCl can occur as an Independent clause. When Predicate contains any interrogative word other than the pronouns sey and sapa it can also expound the Base One tagmeme of a Sequential sentence (see 7.2.6.3c.). It is restricted to this environment when Predicate contains the temporal interrogative kawisa.

The interrogative words are:

sey	who	ka'a	why
sapa	what	kumura	how
wisa	where, which	pira	how much, how many
kawisa	when	takura	how much

Formal Statement:

IntPredCl	→	P _{int}	+T
P _{int}	:	int	
T	:	N, Pr ₂	

1. sey sia Who is he?
P:(who) T:(he)
2. sapa ɲarana What is his name?
P:(what) T:(name-his)
3. sapamow ɲkinaanu What have you eaten?
P:(what)-Mod T:(cm-eat_{OV}-you)
4. ka'a mpələsir ya'i What is this party for? (lit.: Why is this party?)
P:(why) T:(cm-party this)
5. kumura nipimu iti'i What was your dream like? (lit.: How was your dream?)
P:(how) T:(cm-dream-your that)
6. wisa balemu Where is your house?
P:(where) T:(house-your)
7. wisa tinələsanu kayu Where did you buy the wood?
P:(where) T:(buy_{OV}-you wood)
8. pira se tow witu mbale How many people are there in the house? (lit.: How many are the people in the house?)
P:(how many) T:(cm person rm_r cm-house)

6.1.7. Interrogative Tagmeme Clauses

Any verbal clause in which a tagmeme other than Topic or Predicate is expounded by an interrogative word other than the interrogative pronouns *sey who* and *sapa what*, obligatorily transforms to an Interrogative Tagmeme clause (IntTagCl). IntTagCl resembles a Pro-Topic clause but contains in addition an interrogative word which is treated as expounding an Interrogative tagmeme (Int). Int precedes all other

tagmemes. Topic occurs in post-Predicate position and its place before Predicate is taken by a Pro-Topic tagmeme expounded by a subclass 2 pronoun. The derivation involves the obligatory deletion of Topic if it is expounded by a pronoun. This is discussed further in section 6.1.4. Neither Qt nor Com₀ has been observed to occur in IntTagCl.

IntTagCl sometimes resembles closely a Sequential sentence consisting of an Interrogative Predicate clause followed by a Pro-Topic clause. This is further discussed in section 7.2.6.3c.

Formal Statement:

$$\text{IntTagCl} \longrightarrow \text{Int} \text{ +P-T} \text{ +P} \text{ +X} \begin{Bmatrix} +\text{T} & +\text{Y} \\ +\text{Y} & +\text{T} \end{Bmatrix}$$

Int	:	int
P-T	:	pr ₂
P	:	Pp \longrightarrow (Neg) +Cen
T	:	N
X	=	Subject, Object
Y	=	any other nuclear tagmeme or tagmemes.

1. kawisa ya nairədeymow əmbale ya?i
Int:(*when*) P-T:(*it*) P:(*build*_{1V})-Mod T:(*cm-house this*)
When was this house built?
2. kawisa sia minaromi
Int:(*when*) P-T:(*it*) P:(*rain*_{SV})-Mod
When did it rain?
3. ka?a sia rai?pe? mapa?yaŋ si maks
Int:(*why*) P-T:(*he*) P:(*neg-mod work*_{SV}) T:(*cm Max*)
Why isn't Max working yet?
4. kumura sia winunu?na si saŋuran
Int:(*how*) P-T:(*it*) P:(*kill*_{OV})-S:(*he*) T:(*cm crocodile*)
How did he kill the crocodile?

Topic can permute to pre-Predicate position, occurring between Pro-Topic and Predicate (this permutation cannot occur in a Pro-Topic clause):

- 5a. ka?a itu nanuiwaŋker əŋkayu wia nisia
Int:(*why*) P-T:(*it*) P:(*sell*_{1V})-S:(*you*) T:(*cm-wood*) R:(*rm_r he*)
- b. ka?a itu ŋkayu nanuiwaŋker wia nisia
Int:(*why*) P-T:(*it*) T:(*cm-wood*) P:(*sell*_{1V})-S:(*you*) R:(*rm_r he*)
Why did you sell the wood to him?

6.1.8. Qualifying And Nominalised Clauses

Any of the Basic clause types described in Chapter Three, as well as Existential clause sub-types A and B (see 6.2.1.), can be transformed into an embedded clause called a Qualifying clause (QuCl). QuCl expounds the Qualifier slot (see 5.4.5.) of a Noun phrase whose Head exponent is identical to the Topic exponent of the Basic clause from which QuCl derives.³

The transformation involves the deletion of Topic and deletion from the Predicate phrase of Topic Concord. One exception to the obligatory deletion of Topic Concord is mentioned below. In QuCl Predicate must precede all other tagmemes.

Formal Statement:

QuCl	→	P	+X
P	:	Pp	→ (Neg) +Cen
X	=	any tagmeme or tagmemes, other than Topic, occurring in the clause from which QuCl derives.	

In each of the following examples is illustrated a Basic clause and the QuCl derived from it. QuCl expounds the Qualifier slot within a Noun phrase. Further examples are given in section 5.4.5.

1. si tuama si mapa'yaŋ
T:(cm man) P:(tm work_{SV})
The man is working.
→ si tuama mapa'yaŋ iti'ŋ
cm H:(man) Qu:(work_{SV}) Dem:(that)
that man who is working
2. se tow se witu lodeyna
T:(cm person) P:(tm rm_r boat-his)
The people are in his boat.
→ se tow witu lodeyna
cm H:(person) Qu:(rm_r boat-his)
the people who are in his boat
3. se tow se təlu
T:(cm person) P:(tm three)
There are three people. (lit.: The people are three.)
→ se tow təlu
cm H:(person) Qu:(three)
three people

Topic Concord deletion is optional in derivation from a Noun clause if the Head exponent of the Predicate Noun phrase is inanimate:

4. ndua wale
cm-H:(two) Qu:(house)
- or ndua mbale
cm-H:(two) Qu:(tm-house)
two houses
5. saŋaʔaka saʔut
H:(one-stems) Qu:(banana)
- or saŋaʔaka nsaʔut
H:(one-stems) Qu:(tm-banana)
one banana tree

QuCl can also derive from a Conjoined clause, as in the following example:

6. se tow se miney masar
T:(cm person) [P:(tm come_{sv})] [=P:(go-to-market_{sv})]
The people have come to market.
- se tow miney masar
cm H:(person) Qu:([P:(come_{sv})] [=P:(go-to-market_{sv})]])
the people who have come to market

In any Noun phrase which contains a Qualifier tagmeme the Head noun can be deleted. The Qualifying clause then replaces the deleted noun as exponent of Head and becomes a Nominalised clause (NomCl). The only restriction is that a Nominalised Noun clause can only expound the Head of the Topic phrase of an Identificational clause (see 6.2.2.). QuCl undergoes no structural changes when becoming nominalised. Each of the following examples illustrates a Noun phrase whose Head exponent is a Nominalised clause.

7. si mapaʔyaŋ itiʔi that one working
cm H:(work_{sv}) Dem:(that)
8. se witu lodeyna the ones in his boat
cm H:(rm_r boat-his)
9. se təlu itiʔi those three
cm H:(three) Dem:(that)
10. mbaŋkoʔ itiʔi that big one
cm-H:(big) Dem:(that)
11. si wəwean kaʔawu the one who has a wife
cm H:(ex wife)

Mention is made here of a Nominalised clause for which no corresponding Qualifying or Basic clause types occur in present-day Tondano. This is the Nominalised Manner clause (NomCl_m).⁴ NomCl_m occurs only as the Topic Head exponent in a clause associated with manner, i.e., a Descriptive clause (see 3.2.1.), a Similitude clause (see 3.2.3.) or an Interrogative Predicate clause whose Predicate exponent is *kumura how?* (see 6.1.6.). The verb of NomCl_m is inflected with *kapa-* or *kəCə-* (see 8.1.21.) and can be translated as *the manner of doing X* where *X* is the meaning of the verb stem.

Each of the following examples illustrates a clause whose Topic Head exponent is NomCl_m.

12. *kinəwəwewena* *si asu* *əndai' talous ənte'*
 T:(P:(*manner-hit*)-S:(*he*) O:(cm *dog*)) P:(tm-neg *too hard*)
He didn't hit the dog too hard. (lit.: His manner of hitting the dog was not too hard.)
13. *kumura* *kapalutu'* *ni* *mama* *ŋkaan*
 P:(*how*) T:(P:(*manner-cook*) S:(rm_s/cm *mother*) O:(cm-*rice*))
How does mother cook the rice?

6.1.9. Verbal Complement Clauses

A Verbal Complement clause (VComCl) derives from a Basic Verbal clause and is embedded in the Complement of a Verb phrase (see 5.9.4.).

Derivation involves deletion of Topic. The deleted Topic is identified with some participant in the embedding clause. It is identified with the object of the embedding clause if it has an underlying Objective case, as in (2), otherwise with the subject of the embedding clause, as in (1).⁵

A further requirement is the deletion of all tagmemes within Predicate except the Centre Verb phrase. The Verbal Complement Predicate (P_{comv}) is then expounded directly by the Verb phrase.

Formal Statement:

$$\begin{array}{lcl} \text{VComCl} & \longrightarrow & \text{P}_{\text{comv}} + \text{X} \\ \text{P}_{\text{comv}} & : & \text{V} \\ \text{X} & = & \text{all other tagmemes, except Topic, occurring in} \\ & & \text{the clause from which VComCl derives.} \end{array}$$

In each of the following examples is given a Basic clause and the VComCl derived from it. VComCl expounds a Verbal Complement slot and is bracketed in the l/s and free translations. In (2) the Verb phrase of the embedding clause is discontinuous (see 5.9.4.).

1. si oki? si maame? *The child is crying.*
 T:(cm child) P:(tm cry_{SV})

⇒ si oki? si matowo maame?
 T:(cm child) P:(tm pretend_{SV} [cry_{SV}])
The child is pretending [to cry].

2. se tow se mäsəsawaŋan
 T:(cm person) P:(tm help-recv_{SV})
The people will help each other.

⇒ ku rumeo se tow mäsəsawaŋan
 P:¹(tm order_{SV})¹ O:(cm person) ¹([help-recv_{SV}])¹
I will tell the people [to help each other].

VComCl is also derivable from a Conjoined clause. The transformation is identical to that undergone by a Basic clause. Thus Topic of CjCl is deleted together with all tagmemes within the first Predicate preceding the Verb phrase.

3. se oki? se mey lumi?lip
 T:(cm child) P:(tm come_{SV}) =P:(swim_{SV})
The children will come swimming.

⇒ se oki? se kineretəna mey lumi?lip
 T:(cm child) P:¹(tm call_{OV})¹-S:(he) ¹([P:(come_{SV}) =P:(swim_{SV})])¹
He called the children [to come and swim].

6.2. FURTHER BASIC CLAUSE TYPES

6.2.1. Existential Clauses

Four sub-types of Existential clause (ExCl) occur, each differing from every other in at least two features. Basic differences cut across the four types in such a way that they can be expressed in matrix form, as in Table VI.

TABLE VI: SHARED AND CONTRASTIVE FEATURES OF EXISTENTIAL CLAUSE SUB-TYPES.

	POSITIVE	NEGATIVE
TOPIC	A	B
NO TOPIC	C	D

As indicated in Table VI, two of the ExCl sub-types are positive (A and C) and two are negative (B and D). A and B contain a Topic tagmeme while C and D contain no Topic.

Types A and B indicate that the Topic exponent has or does not have something while C and D indicate that something does or does not exist. A and C indicate the existence of something while B and D indicate the non-existence of something.

Although each of the four ExCl sub-types could be described separately there would be considerable overlap in description and four Predicate phrase types would be required, each separately labelled. The array of shared and contrastive features allows all four types to be described together and to be expressed in a single formal statement.

In the following description the letters A,B,C and D refer to the four sub-types as indicated in Table VI.

Topic (in A and B) is expounded by a Noun phrase or Pronoun phrase.

Predicate is expounded by an Existential Predicate phrase (Pp_{ex}). In A and B this contains an optional Topic Concord tagmeme and a Centre. In C and D Predicate contains the particle N- plus Centre.

Centre is expounded by an existential particle (ex). In A and C this is the positive particle *wəwean* and in B and D it is the negative particle *rai?*.

All types contain an obligatory Existential Complement (Com_{ex}) expounded by an Existential Complement Noun phrase ($Ncom_{ex}$). In A and C this Noun phrase is distinguished from N (see 5.4.0.) only by the fact that Classifier is optional. In types B and D noun classification in $Ncom_{ex}$ is neutralised, Classifier being replaced by the particle *si*.

Formal Statement:

$$\begin{array}{l}
 \text{ExCl} \longrightarrow \left\{ \begin{array}{l} T \quad +P_{ex} \quad +Com_{ex} \\ P_{ex} \quad +Com_{ex} \end{array} \right\} \\
 T \quad : \quad N, Pr \\
 P_{ex} \quad : \quad Pp_{ex} \longrightarrow \left[\begin{array}{l} Tc \quad +Cen_{ex} \\ (N-) \quad +Cen_{ex} \end{array} \right] / \left[\begin{array}{l} T \quad + \\ - \end{array} \right] \\
 Cen_{ex} \quad : \quad ex \longrightarrow \left\{ \begin{array}{l} wəwean \\ rai? \end{array} \right\} \\
 Com_{ex} \quad : \quad Ncom_{ex} \longrightarrow \left[\begin{array}{l} (Cs) \quad +Hn \quad (+...) \\ si \quad +Hn \quad (+...) \end{array} \right] / \left[\begin{array}{l} Cen:wəwean \\ Cen:rai? \end{array} \right]
 \end{array}$$

The following examples illustrate the four sub-types of ExCl:

1. Type A

a. niaku ku wəwean ka'awu
 T:(I) P:(tm ex) Com:(wife)
I have a wife.

b. banua mbəwean kalasan penar
 T:(village) P:(tm-ex) Com:(square broad)
The village has a broad square.

2. Type B

a. si tuama si rai'mow si loit
 T:(cm man) P:(tm ex)-Mod Com:(si money)
The man no longer has any money.

b. balena ndai'la si tətəboan
 T:(house-his) P:(tm-neg)-Mod Com:(si window)
His house has no windows.

3. Type C

a. wəwean pasar witu mbanua
 P:(ex) Com:(market) R:(rm_r cm-village)
There is a market in the village.

b. mbəwean tole oki'
 P:(N-ex) Com:(boy small)
There is a boy (here).

c. mbəwean si mapa'yaŋ
 P:(N-ex) Com:(cm work_{sv})
There is someone working.

4. Type D

a. rior ənda'ipe'la si oto
 Te:(before) P:(N-neg)-Mod Com:(si auto)
Previously there were no cars.

b. nda'ila si tow wia
 P:(N-neg)-Mod Com:(si person) R:(here)
There is no-one here.

Topic may be deleted from types A and B in accordance with the rules in section 4.1.3.2. However, these types must still be distinguished from types C and D since the difference is one of optional Topic versus obligatorily absent Topic. Hence the distinction must be made in the rewriting of ExCl in the formal statement. The difference is correlated with the possibility or not of Topic Concord occurring in the Predicate

phrase. Neither of the clauses in (5) has a Topic, but (a) is a clause in which Topic Concord marks agreement with a deleted Topic (which is known from context) while (b) is a clause which has no Topic and consequently a Topic Concord tagmeme cannot occur within the Predicate phrase:

5a. si wəwean wale rua *He has two houses.*
 P:(tm ex) Com:(*house two*)

b. mbəwean wale rua *There are two houses.*
 P:(N-ex) Com:(*house two*)

Topic permutation can occur in types A and B:

6. si wəwean kaʔawu si tuama
 P:(tm ex) Com:(*wife*) T:(cm man)
 The man has a wife.

7. si raiʔla si asu si kaʔampitəku
 P:(tm neg)-Mod Com:(*si dog*) T:(cm friend-my)
 My friend doesn't have a dog.

Sub-types A and B can be transformed into Qualifying clauses, the transformation being the same as that described for Basic clauses (see 6.1.8.).

6.2.2. Identificational Clauses

An Identificational clause (IdCl) is a construction which differs considerably in internal structure from all other clause types. An Identificational clause is translatable as *the one who/which is X is Y* or *it is Y who/which is X* where (*the one*) *who/which is X* is Topic and *Y* is Predicate.

The normal order in IdCl is Predicate + Topic. The Identificational Predicate phrase (Pp_{id}) differs from the Predicate phrase described in section 5.8. in two ways: (i) Pp_{id} does not contain Topic Concord. Instead, the particle N- occurs, but only if followed by the negative particle. (ii) Centre contains a Noun phrase or a Pronoun phrase whose Head is a subclass 1 pronoun. Unlike the Centre exponent of a Noun clause (see 3.2.5.), the Centre Noun phrase in IdCl retains its Classifier.

Identificational Topic (T_{id}) is expounded by an Identificational Noun phrase (N_{id}) which consists of Classifier and Head. Head is always expounded by a Nominalised clause. This clause can be derived from any of the clause types described in Chapter Three, including a Noun clause, and also from Existential clause types A and B. Hence the Topic

exponent of IdCl is always translatable as *the one who/which is X* where X represents the Nominalised clause.⁶

The Identificational intonation pattern is described in section 2.1.5.

Formal Statement:

$$\begin{aligned} \text{IdCl} &\longrightarrow \text{P}_{\text{id}} + \text{T}_{\text{id}} \\ \text{P}_{\text{id}} &: \text{Pp}_{\text{id}} \longrightarrow (\text{N-} + \text{Neg}) + \text{Cen} \\ \text{Cen} &: \text{N}, \text{Pr}_1 \\ &\quad \text{N} \longrightarrow \text{Cs} + \text{Hn} (+\dots) \\ \text{T}_{\text{id}} &: \text{N}_{\text{id}} \longrightarrow \text{Cs} + \text{Hn}_{\text{id}} \\ \text{Hn}_{\text{id}} &: \text{NomCl} \end{aligned}$$

Full exponence and reading rules are given for the first example of IdCl:

$$\begin{aligned} 1. \quad \text{IdCl} &\longrightarrow \text{P}_{\text{id}} + \text{T}_{\text{id}} \\ \text{P}_{\text{id}} &: \text{Pp}_{\text{id}} \longrightarrow \text{Cen} : \text{Pr} \longrightarrow \text{Hpr} : \text{pr}_1 \longrightarrow \quad \text{niaku} \\ \text{T}_{\text{id}} &: \text{N}_{\text{id}} \longrightarrow \text{Cs} + \text{Hn} \\ \text{Cs} &: \text{cm}_{\text{an.sg}} \longrightarrow \quad \text{si} \\ \text{Hn} &: \text{NomCl}_v \longrightarrow \text{P} + \text{O} \\ \text{P} : \text{Pp} &\longrightarrow \text{Cen} : \text{V} \longrightarrow \text{Deg} + \text{Hv} \\ &\quad \text{Deg} : \text{adv} \longrightarrow \quad \text{kasa} \\ &\quad \text{Hv} : \text{v}_{\text{sv}} \longrightarrow \quad \text{maupus} \\ \text{O} : \text{R-A}_0 &\longrightarrow \text{Rel}_0 + \text{Ax} \\ \text{Rel}_0 &: \text{rm}_0 \longrightarrow \quad \emptyset \\ \text{Ax} &: \text{Pr} \longrightarrow \text{Hpr} : \text{pr}_1 \longrightarrow \quad \text{nikoo} \end{aligned}$$

niaku si kasa maupus nikoo

P:(I) T:(cm very love_{sv} you)

It is I who most loves you. or The one who most loves you is me.

2. ni?ituite ŋkaide? ne tow
P:(that)-Mod T:(cm-fear_{iv} rm_s/cm person)
It is that alone which the people fear.

3. niakuite si wəwean ka?awu
P:(I)-Mod T:(cm ex wife)
I am the only one who has a wife. (lit.: The one who has a wife is me alone.)

si guru si rai? ka?ampitəku /231
 P:(cm *teacher*) T:(cm neg *friend-my*)
It is the teacher who isn't my friend.

In IdCl Predicate and Topic can permute, but the order Topic plus Predicate occurs only rarely.

9. ndai? niaku si guru
 P:(N-neg *I*) T:(cm *teacher*)

⇒ si guru ndai? niaku
 T:(cm *teacher*) P:(N-neg *I*)
It is not I who is a teacher.

CHAPTER SEVEN

7. SENTENCES

7.0. A sentence is a construction which can stand alone as a complete utterance. Such a construction need not stand alone but may form part of a larger sentence. A sentence which stands as a complete utterance is in absolute position. One which is not in absolute position is embedded, i.e., it expounds a slot within another sentence or within a lower level construction.

A sentence in absolute position is accompanied by a final intonation contour which identifies it as declarative or interrogative (see 2.1.5.).

7.1. SENTENCE PERIPHERY

7.1.0. Any of the sentence types described in section 7.2. has an optional periphery, the remainder of the sentence being the nucleus. Periphery includes a number of tagmemes, the most important of which are described briefly here.

7.1.1. Exclamations

The Exclamation tagmeme (Excl) is expounded by exclamations which include:

e	<i>hey</i>	wetaʔ	<i>what a pity, alas</i>
o	<i>oh</i>	wiləg	<i>oh dear</i>
pasil	<i>good heavens</i>	awo	<i>ho there, aha</i>

Exclamations usually precede the sentence nucleus:

1. awo taekan ko tinuʔmərow
Excl Te:(now) P:(tm catch_{ov})-Mod
Aha, now you have been caught!

2. o pasil se wiamow se sakey
 Excl P:(tm here)-Mod T:(cm guest)
Good heavens, the guest are here already!

Sometimes Excl is displaced, occurring within the nucleus:

3. si tuarinea weta? si mənəməŋəme?
 T:(cm sister-their) Excl P:(tm cry_{SV})
Their sister, poor thing, cried and cried.

7.1.2. Vocative

The Vocative tagmeme (Voc) is expounded by a Vocative Noun phrase (N_{VOC}) which consists of a Head expounded by an animate noun (common or proper) referring to the person addressed.¹ Post-Head tagmemes can also occur but Classifier is absent. Voc either precedes or follows the sentence nucleus or can be inserted within the nucleus:

4. mantik meype? Mantik, come here!
 Voc:(Mantik) P:(come_{SV})-Mod
5. ləntəʔanukemi saʔut woley
 P:(drop_{RV})-S:(you)-Mod O:(banana) Voc:(Monkey)
Please drop me a banana, Monkey!
6. wiamow e kalo nədo
 P:(here)-Mod Excl Voc:(friend) T:(cm-day)
The day is already here, eh friend.

7.1.3. Softeners

The particles grouped here as expounding a Softener tagmeme (Sof) are added to an utterance which might otherwise sound harsh or impolite. The most important of these are:

- (a) da, which is added to a command or request to make it sound less abrupt:

7. e kusir teaʔmow tarəpət da
 Excl Voc:(driver) P:(don't-mod too-fast) Sof
Hey driver, not too fast please.
8. ko tumərusitemi wia mbaleməy da
 P:(tm direct_{SV})-Mod R:(rm_R cm-house-our) Sof
You'll come straight to our house, won't you now?

- (b) keʔe, which softens an accusation or assertion by giving it the appearance of a question. It can usually be translated into English by a sentence tag:

9. nikomow si magedoḡedo mpolaku ke'e
 P:(you)-Mod T:(cm take_{SV} cm-cane-my) Sof
So you are the one who is always taking my sugar-cane, are you?
10. se tu'amu wo se patuarimu se mēpa'apa'ar ke'e
 T:(cm parent-your and cm brother-your) P:(tm pleased_{SV}) Sof
Your parents and your brothers were pleased, weren't they?
- (c) re'envre'e, which softens interrogatives. It usually occurs with an interrogative Simple sentence and immediately follows Predicate:
11. sey re'en koo Who are you?
 P:(who) Sof T:(you)
12. nikomow re'en si rai' kimaan
 P:(you)-Mod Sof T:(cm neg eat_{SV})
You are the one who didn't eat, are you?
13. ku rai'mow kasina'uaniu re'e
 P:(tm neg-mod recognise_{RV})-S:(you) Sof
You no longer know me, eh?

7.1.4. Responses

The Response tagmeme (Res) is expounded by the two response words:

yoon yes
 ndai' no

These always precede the sentence nucleus:

14. yoon ku rara'an Yes, I'm sick.
 Res P:(tm sick)
15. ndai' ku rai' rara'an No, I'm not sick.
 Res P:(tm neg sick)

7.2. SENTENCE TYPES

7.2.0. The following statement does not purport to be a full analysis of sentence level constructions but merely an outline of the principal sentence types which have been recorded. These are presented as a list but it is possible that a more detailed investigation would reveal the existence of a system of sentence types.²

The embedding of sentences is only dealt with in general terms; tagmemes which are expounded by sentences are indicated but the particular sentence types which expound these tagmemes are not usually detailed. Minor sentence types, such as fragmentary sentences and various sorts of dependent sentences, are not mentioned. The weight

given to Sequential sentences reflects the frequency of this type in texts.

7.2.1. Simple Sentences

A Simple sentence (SmpS) consists solely of a Base expounded by an Independent clause:

SmpS → B
 B : IndCl

SmpS can stand in absolute position or expound a slot within some other sentence. The clause constructions described in Chapter Three and the Independent types in Chapter Six can all expound the Base of SmpS and thus provide examples of this sentence type.

7.2.2. Thematic Sentences

A Thematic sentence (ThS) consists of two tagmemes: a Theme (Th) and a Base. Theme is expounded by a Noun phrase or a Pronoun phrase whose Head is a subclass 1 pronoun and Base is expounded by a sentence. In almost all recorded cases this is a Simple sentence though other sentence types can also occur, such as the Subordinating sentence in (8) below.

ThS → Th +B
 Th : N, Pr₁
 B : S

ThS is a construction in which Theme announces someone or something and Base makes a statement about that person or thing. Three sub-types of ThS have been recorded, based on the kind of relationship holding between Theme and Base:

(a) Base makes a statement about something possessed or about some action carried out by the person or thing expressed in Theme. A pronoun within Base, expounding either a Subject or Possessor R-A phrase, is identified with the participant expressed in Theme:

1. si karel se tu?ana se tu?amow
 Th:(cm Karel) T:(cm parent-his) P:(tm old)-Mod
 As for Karel, his parents are already old.

2. niaku kasa kəpa?arəku kopi sokəlat
 Th:(I) P:(very like_{1v})-S:(I) T:(coffee chocolate)
 As for me, I especially like chocolate coffee.

3. waya lo'onala wuinala sa sapa narana
 Th:(all see_{OV}-he-mod) P:(ask_{OV})-S:(he)-Mod T:(cmz what name-its)
Concerning everything he sees, he asks what its name is.

4. se suminsim laeŋ kapatərinea ŋkaan
 Th:(cm bird sp.) P:(different) T:(manner-destroy-they cm-rice)
As for the suminsims, their way of destroying rice is different.

(b) Theme announces a group of people or things and Base makes a statement about some member or members of that group:

5. mbaya ne rəraa wia ŋkəoatan nikoite
 Th:(cm-all rm_{PO}/cm girl rm_R cm-world) P:(you)-Mod
 si witu nateku
 T:(cm rm_R cm-heart-my)
Of all the girls in the world, you are the only one who is in my heart.

6. se tuama wəwean se magegey se ko'ko'
 Th:(cm man) P:(ex) Com:(cm carry_{SV} cm hen)
Of the men, there are those who are carrying hens.

(c) The Base gives general information about the Theme phrase:

7. kabiasa'an ni tətərusan kokon paposokənala
 Th:(custom rm_{PO}/cm chief) T:(head take_{OV}-he)
 nipəsaŋkoŋənala witu ŋkədīr
 P:(tm-hang_{IV})-S:(he)-Mod R:(rm_R cm-wall)
Concerning the chief's custom, the heads he takes (in battle) he hands on the wall.

8. pəpa'yaŋən ni jon susur sia kumaluar səkola
 Th:(work rm_{PO}/cm Djon) B:(rm_{Sub} M:(he go-out_{SV} school))
 si məwaŋker kukis sa'ut
 B:(tm sell_{SV} biscuit banana))
Concerning Djon's work, whenever he gets out of school he sells banana fritters.

7.2.3. Co-Ordinating Sentences

Any sentence except a Sequential sentence may be linked to another sentence by a co-ordination relation marker. Any sentence so linked to another expounds a Base slot in a Co-ordinating sentence (CoS). The co-ordination relators linking the bases of CoS are *wo and*, *ka'apa or* and *ta'an but*. The relator is optional; the Bases may be bound solely by their intonation contour, i.e., with only one sentence-final

intonation contour occurring.

CoS → B (+rm_{CO}) +B

B : S

In the following examples only sentences in which both Bases are expounded by Simple sentences are given. Bases can be expounded by more complex structures, including Co-ordinating sentences. Hence a co-ordinated string of sentences of any length may occur.

In the following examples Bases are linked by a relator:

1. wəwean toko waŋko? wo wəwean toko oki?
 B:(P:ex Com:shop big) rm_{CO} B:(P:ex Com:shop small)
There are big shops and there are small shops.

2. maaro taekan ta'an ənda'i ɣə'ɣər
 B:(P:rain_{SV} Te:now) rm_{CO} B:(P:tm-neg cold)
Its raining now but it isn't cold.

In the following examples Bases are not linked by a relator:

3. si ema uraŋ ne tow kaya si jon
 B:(T:cm Emma P:child rm_{PO}/cm person rich) B:(T:cm Djon
 uraŋ ne tow ləŋey
 P:child rm_{PO}/cm person poor)
*Emma was the child of rich people: Djon was the child of
 poor people.*

4. se wəwene se masu?usu'un lo?lo? se tuama
 B:(T:cm woman P:tm carry-on-head_{SV} O:basket) B:(T:cm man
 se maɣeɣey
 P:tm carry-by-hand_{SV})
*The women carry baskets on their heads; the men carry (them)
 by hand.*

In CoS the Topic of any clause following the first is omitted if it has been referred to in the preceding clause, in accordance with the statement on Topic omission in section 4.1.3.2.:

5. si wa'u si kasa oki? ta'an si talous pande
 B:(T:cm tortoise P:tm very small) rm_{CO} B:(P:tm too clever)
The tortoise is very small but he is extremely clever.
6. si mama limutu? səra? ta'an əndai? kinaaŋku
 B:(T:cm mother P:cook_{SV} O:fish) rm_{CO} B:(P:tm-neg eat_{OV}-S:I)
Mother cooked fish but I didn't eat it.

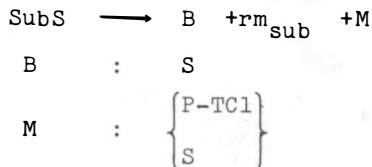
A Co-ordinating sentence of the type in (5) and (6) may differ from a Compound clause (see 6.1.2.) only in the presence of the topic marker in its second clause. In the following example (a) is a Co-ordinating sentence and (b) is a Compound clause:

- 7a. se toudano se məŋuma witu liʔlik əmbanua
 B:(T:cm *Tondano* P:tm *garden*_{SV} R:rm_R *edge* rm_{PO}/cm-*village*)
 wo se mələpo witu tawi lour
 rm_{CO} B:(P:tm *work-field*_{SV} R:rm_R *near lake*)
The Tondanese work the gardens around the town and they work the fields near the lake.
- b. se toudano se məŋuma witu liʔlik əmbanua
 T:(cm *Tondano*) P:(tm *garden*_{SV}) R:(rm_R *edge* rm_{PO}/cm-*village*)
 wo mələpo witu tawi lour
 rm_{CO} =P:(*work-field*_{SV}) R:(rm_R *near lake*)
The Tondanese work the gardens around the town and work the rice fields near the lake.

In (a) the co-ordination relator is followed by an Independent clause expounding the Base of a Simple sentence (which itself expounds the second Base of CoS). In (b) what follows rm_{CO} is not an independent construction (and therefore cannot expound the Base of a Simple sentence) but is part of a single complex clause, as described in section 6.1.2.

7.2.4. Subordinating Sentences

A Subordinating sentence (SubS) contains a Base expounded by a sentence and a Margin (M) expounded by a Pro-Topic clause or a sentence. The two tagmemes are linked by a subordination relation marker (rm_{sub}) which immediately precedes the Margin.



Following some subordination relators Margin can either precede or follow Base; with other relators it obligatorily follows Base. Subordination relators which allow Margin to either precede or follow Base include:

kaʔkaʔa	<i>because</i>	maʔan	<i>although</i>
sa	<i>if, when</i>	susur	<i>whenever, every time</i>
nu	<i>when</i>		

Relators which require Margin to follow Base include:

rior^{wo} rior *so that*
 akar^ttakar *until, to the extent that*
 tea' *lest*
 ika'ayo^{ka}'ayo *until*

In the following examples Base is expounded by a Simple sentence and Margin by a Pro-Topic clause or a Simple sentence:

1. sa sia ulit minamualimow roŋkit si karel
 rm_{sub} M:(P-T:he Adv:true P:become_{sv}-mod thief T:cm Karel)
 si weaŋku pəpa'yaŋən
 B:(P:tm give_{rv}-S:I O:work)
 If Karel has truly become a thief I will give him work.
2. se oki' se maarəm ka se rai'pe' kimaan
 B:(T:cm child P:tm hungry_{sv}) rm_{sub} M:(P:tm neg-mod eat_{sv})
 The children are hungry because they haven't eaten yet.
3. sapa naisiwona nu sia minareŋ waki wale
 B:(P:what T:do_{iv}-he) rm_{sub} M:(P-T:he P:return_{sv} R:rm_r house)
 What did he do when he returned home?
4. si minewe si oki' ka'ayo sia maame'
 B:(P:tm hit_{sv} cm child) rm_{sub} M:(P-T:he P:cry_{sv})
 He hit the child until it cried.
5. si keke' məgereŋeret wo rior ləloŋkotan iwəroymi
 B:(T:cm Keke P:call_{sv}) rm_{sub} M:(T:ladder P:lower_{iv}-Mod)
 Keke called and called so that the ladder would be lowered.
6. tumiŋkasow rəpət tea' itu rai'mow
 B:(P:run_{sv} M:fast) rm_{sub} M:(P-T:it P:neg-mod
 tu'mərənu mbis
 catch_{ov}-S:you T:cm-bus)
 Run fast lest you don't catch the bus!

Margin and Base can be expounded by more complex constructions as in the following examples:

7. (Margin expounded by a Co-ordinating sentence)
 sa kinawonoran əlalan wo kow kaana'
 rm_{sub} M:((P:collapse_{rv} T:road) rm_{co} (P:tm stop_{iv}
 mana ndai' si wale wo kow kawəŋian mana lalan
 R:rm_r cm-ex si house) rm_{co} (P:tm benight_{rv} R:rm_r road))
 wisamokan təkəlanu
 B:(P:where-Mod T:sleep_{rv}-you)

If the road has collapsed and you are forced to stop where there aren't any houses and you are caught by night on the road, where on earth will you sleep?

8. (Base expounded by a Subordinating sentence)

ma'an itu liḡanae ni raja ku rai'
 rm_{sub} M:(P-T:it P:hear_{OV}-Mod S:rm_S/cm king) B:(B:(P:tm neg
 maide' ka ku wəwean surat tamat
 afraid_{SV}) rm_{sub} M:(P:tm ex Com:letter pass))
*Although the king will hear about it I'm not afraid, because
 I have a certificate.*

9. (Margin expounded by a Subordinating sentence)

ku mawəwui wia nikoo sa ku toro mapawee
 B:(P:tm ask_{SV} R:rm_R you O:cmz tm can continue_{SV}
 witu nsəkola ka sa ku tamatənola
 rm_R cm-school) rm_{sub} M:(rm_{sub} M:(P:tm pass_{OV}-Mod)
 ku maka'ato pəpa'yaḡən le'os
 B:(P:tm get_{SV} O:work good))
*I would like to ask you if I may continue at school because,
 if I pass (lit.: am passed), I will get a good job.*

Under some circumstances the Base can be discontinuous, with the rest of the sentence, i.e., rm_{sub} +Margin, being inserted within it. This can occur in cases where rm_{sub} +Margin can also precede Base. In the following examples the displaced relator and Margin are placed in square brackets:

10. mbaya mpeḡuma'an sa itu rai' tayuran
 B:(T:(cm-all rm_{PO}/cm-field) [rm_{sub} M:(P-T:it P:neg guard_{RV})]

pədisənitela ne kerut lisow wo ne weris
 P:(devour_{OV}-Mod) S:(rm_S/cm parrot green rm_{CO} rm_S/cm bird sp.))
*All the fields, if they are not guarded, are devoured by the
 green parrots and the weris.*

11. si pandita ka si maide' si minumpun
 B:(T:(cm priest) [rm_{sub} M:(P:tm afraid_{SV})] P:(tm enter_{SV})

witu ḡkaronḡ
 R:(rm_R cm-sack))
The priest, because he was afraid, climbed into the sack.

7.2.5. Attributing Sentences

An Attributing sentence (AttS) consists of a Base expounded by a sentence and an Attributing tagmeme (Att) which attributes the statement in the Base to someone.

AttS → Att +B
 Att : att
 B : S

The exponent of Att is one of a number of words or phrases which are often idiomatic. Only the most common of these are mentioned:

(a) *sapake according to what is said, the story goes, it is said.*

This word occurs as the opener of a narrative:

1. sapake si wa?u wo si woley se məkalo male?ole?osan
 Att B:(T:cm *tortoise* rm_{CO} cm *monkey* P:tm *friend good-recipient*_{SV})
It is said that Tortoise and Monkey were good friends.

(b) A Noun phrase consisting of a Head expounded by *pokey statement, word* or *ləlila?an word* followed by a Possessor phrase. The following Base can contain a statement, order or question:

2. pokey ne tu?a sa itu tare marəgaki
 Att:(word rm_{PO}/cm *elder*) B:(rm_{Sub} M:(it just release_{SV}-mod
 nawun ənda?i talous makaide?en
 cm-smoke) B:(tm-neg too frightening))
*The elders say that if it (a volcano) is just giving off smoke
 it is not greatly to be feared.*

(c) *ki?it according to* followed by a Noun phrase, including one whose whose Head exponent is *ləlila?an*. The following Base can contain only a statement:

3. ki?it na?asərən se mana nsəgawəka amian wo məy
 Att:(follow cm-story) B:(P:tm rm_r cm-side north rm_{CO} P:come_{SV})
According to tradition they came from the north.

Sometimes Att can follow Base:

4. si jon si minatemow ki?it ləlila?an ni
 B:(T:cm *Djon* P:tm *dead-Mod*) Att:(follow word rm_{PO}/cm
 kalona
 friend-his)
Djon is dead, according to what his friend says.

7.2.6. Sequential Sentences

7.2.6.0. A Sequential sentence (SeqS) links two or more actions or states in a temporal relationship. SeqS is usually translatable as *A happened and then B happened* or *when/after/before A happened B happened*, but there are a number of variations to this basic type. Sequence sentences occur very frequently in texts and in narrative style they are the most common sentence type.

SeqS contains two Base tagmemes: Base One (B_1) and Base Two (B_2) which are sometimes linked by the co-ordination relator *wo*. Both B_1 and B_2 can be expounded by a number of constructions. Because of the large number of possible combinations of these exponents a thorough analysis of this sentence type is not yet possible. Here only the most common types of SeqS are described. In section 7.2.6.1. are described what are called major sequential constructions. The term major is to be understood merely as signifying numerical preponderance; these account for the vast majority of all Sequential sentences. Various other sequential constructions are described in section 7.2.6.3. Under some circumstances SeqS can be expanded by the addition of further Bases. A very limited description of such expansion is given in section 7.2.6.4.

7.2.6.1. Major Sequential Constructions

Base One is expounded by a Basic clause or a Sequential clause and Base Two is expounded by a Basic clause, a Sequential clause or Pro-Topic clause.

$$\begin{array}{l} \text{SeqS} \longrightarrow B_1 (rm_{co}) + B_2 \\ B_1 \quad : \quad \left\{ \begin{array}{l} \text{BasCl} \\ \text{SeqCl} \end{array} \right\} \\ B_2 \quad : \quad \left\{ \begin{array}{l} \text{BasCl} \\ \text{SeqCl} \\ \text{P-TCl} \end{array} \right\} \end{array}$$

The relator *wo* occurs only if B_2 is expounded by P-TCl and is translatable as *then, and then*.³

Any exponent of B_1 can combine with any exponent of B_2 except that the sequence of $B_1:\text{BasCl} + B_2:\text{SeqCl}$ has not been observed. A sequence of two Basic clauses occurs, optionally linked by *wo*, but this forms a Co-ordinating sentence (see 7.2.3.). The four remaining combinations of Base exponents are treated individually below.

$$(a) \text{ SeqS} \longrightarrow B_1: \text{SeqCl} + rm_{co} + B_2: \text{P-TCl}$$

The combination of SeqCl and P-TCl, linked by rm_{co} , is the most common variant of SeqS. The construction indicates that the action of

B₂ occurs after the action of B₁ or while it is still in progress. In the former case the verb of B₁ is inflected with <-um-> (see 8.1.1.2.la.) and in the latter case with <ma-> (see 8.1.1.2.lc.):

1. sumuwa'mi ŋkapal wo sia tumumpami
B₁:(P:berth_{SV}-Mod T:cm-ship) rm_{CO} B₂:(P-T:he P:descend_{SV}-Mod
 si kapteŋ wia ntana?
T:cm captain R:rm_R cm-land)
The ship berthed and then the captain disembarked.
2. irəgaki ni kerut si səsoloŋ wo
B₁:(P:take-out_{1V}-Mod S:rm_S/cm Kerut T:cm ring) rm_{CO}
 sia ikaya'nala wia si manimporok
B₂(P-T:it P:hand_{1V}-S:he-Mod R:rm_R cm Manimporok)
Kerut took out the ring and then handed it to Manimporok.
3. pəkətanəmneala mbuŋaŋ iti'ʔi wo
B₁:(complete-plant_{1V}-S:they-Mod T:cm-flower that) rm_{CO}
 sia sumeŋkot si jon
B₂:(P-T:he P:sail_{SV} T:cm Djon)
When they had finished planting the flowers Djon sailed off.
4. mətatərow tieu sea wo sia
B₁:(P:chop_{SV}-Mod O:pig T:they) rm_{CO} B₂:(P-T:he
 ruma'ragee mpaagi' si əsa
P:drop_{SV}-Mod O:cm-knife T:cm one)
*While they were chopping up the pigs one of them (deliberately)
dropped a knife.*
5. məwareŋow sea wo sea pəŋi'iten
B₁:(P:return_{SV}-Mod T:they) rm_{CO} B₂:(P-T:they P:follow_{OV}
 ne tow walina
S:rm_S/cm person other)
While they were going back they were pursued by other people.

(b) SeqS → B₁: BasCl +rm_{CO} +B₂: P-TC1

This combination indicates that the action of B₂ occurs after the action of B₁:

6. kuli'nea papapəra'an wo itu iwaŋker
B₁:(T:skin-their P:cause-dry_{RV}) rm_{CO} B₂:(P-T:it P:sell_{1V}
 wia se masiwo səpatu
R:rm_R cm make_{SV} shoe)
*Their hides are put out to dry and then they are sold to the
shoe makers.*

7. towna tino?tok rumintərintək wo itu
 B₁:(T:body-her P:chop_{OV} M:fine) rm_{CO} B₂:(P-T:it
 parutae mana limedon əmbena
 P:scatter_{IV}-Mod R:rm_R around rm_{PO}/cm-heaven)
*Her body was chopped up into little pieces and then scattered
 about the heavens.*
8. si tuama si limaa witu mbale ni ema
 B₁:(T:cm man P:tm go_{SV} R:rm_R cm-house rm_{PO}/cm Emma)
 wo itu ri?ripəna namutəna mbuŋaŋ
 rm_{CO} B₂:(P-T:it P:cut_{OV}-S:he T:cm-root rm_{PO}/cm-flower)
*The man went to Emma's house and then he cut the roots of
 the flower.*
9. si ema minueye?la wo tae sia mae
 B₁:(T:cm Emma P:ask_{SV}-Mod) rm_{CO} B₂:(Adv:only P-T:she P:go_{SV})
Emma asked first and only then did she go.

(c) SeqS → B₁: SeqCl +B₂: BasCl

This sequence usually indicates either (i) that when the action of B₁ occurs the action of B₂ has already occurred, as in (10) and (11), or, in the presence of negative, has not occurred (12) or (ii) that the action of B₂ occurs after that of B₁, as in (13) and (14). The difference between (i) and (ii) as to the temporal relationship between the two clauses is not shown by any formal differences, verbal inflection being the same in both types. Apparently uncertainty as to the temporal relationship could occur and only the sense of the sentence indicates whether the action of B₂ occurs before or after the action of B₁.

In types (i) and (ii) mentioned above, the verb in B₂ is inflected for Past tense. A third type occurs in which the verb of B₂ is not inflected for Past tense. This type indicates that when the action of B₁ occurs the action of B₂ is in progress, as in (15) and (16).

10. mareŋi waki wale si keke? ləlonkotan
 B₁:(P:return_{SV} R:rm_R house T:cm keke) B₂:(T:ladder
 kineŋomae waki atas
 P:pull_{OV}-Mod R:rm_R above)
When Keke arrived home the ladder had already been pulled up.

11. kaʔayomee si waʔu si minakatəmpok
 B₁:(P:arrive_{IV}-Mod T:cm tortoise) B₂:(P:tm top_{SV}
 witu nsaʔut si woley
 R:rm_r cm-banana T:cm monkey)
*When tortoise arrived monkey was already at the top of the
 banana tree.*
12. kaʔayomi sia si kendrik si raiʔpeʔ
 B₁:(P:arrive_{IV}-Mod T:she) B₂:(T:cm Hendrik P:tm neg-mod
 winukaʔan ni mamana
 open_{RV} S:rm_s/cm mother-his)
When she arrived Hendrik's mother had still not let him in.
13. suməlamɪ si walansendow si minareŋitemi
 B₁:(P:big_{SV}-Mod T:cm Walansendow) B₂:(P:tm return_{SV}-Mod
 witu ntanaʔ linawiran nisia
 R:rm_r cm-land bear_{RV} she)
*When Walansendow grew up she returned to the land where she
 had been born.*
14. sumuwaʔmi ŋkapal əmbaya ne tow
 B₁:(P:berth_{SV}-Mod T:cm-ship) B₂:(T:cm-all rm_{PO}/cm person
 timumpamow
 P:descend_{SV}-Mod)
When the ship berthed all the people disembarked.
15. mareŋi si tuama si maaliali ləloiʔ
 B₁:(P:return_{SV}-Mod T:cm man) B₂:(P:tm carry_{SV} O:snake)
When the man returned he was carrying a snake.
16. kaʔayomee waki wale si masadiamow
 B₁:(P:arrive_{IV}-Mod R:rm_r house) B₂:(P:tm prepare_{SV}-Mod
 si wəwene
 T:cm woman)
When he arrived at the house the woman was getting ready.
- (d) SeqS → B₁: SeqC1 +B₂: SeqC1
 In this type the action of B₂ occurs after the action of B₁:

17. makalələ?la sea pəneronea
 B₁:(P:complete-bath_{SV} T:they) B₂:(P:search_{OV}-S:they
 ntətewel ni tuarinea
 T:cm-wing rm_{PO}/cm sister-their)
*When they had finished bathing they searched for their
 sister's wings.*
18. edonami si səsoloŋ rimeŋe'mi witu ŋgəlas
 B₁:(P:take_{OV}-S:she-Mod T:cm ring rattle_{SV-mod} rm_R cm-glass)
 pakatu'tu'sanala sia
 B₂:(P:observe_{OV}-S:she-Mod T:it)
*Picking up the ring which had rattled in the glass she
 observed it carefully.*
19. ka'ayomae waki walena sia lo'onala
 B₁:(P:arrive_{IV}-Mod R:rm_R house-her T:she) B₂:(P:see_{OV}-S:she-Mod
 se tu'ana
 T:cm parent-her)
When she arrived home she saw her parents.

7.2.6.2. Deletion Of Tagmemes

Clause level tagmemes in SeqS are deletable in accordance with the statements in section 4.1.3. If a participant is identified in one clause within SeqS it is not usually expressed in the other clause as well unless by a pronoun.

As shown in the following example, Topic can be deleted from either clause:

- 20a. ka'ayomi si tuama wo sia gumorəm
 B₁:(P:arrive_{IV}-Mod T:cm man) rm_{CO} B₂:(P-T:he P:enter_{SV})
When the man arrived he went in.
- b. ka'ayomi wo sia gumorəm si tuama
 B₁:(P:arrive_{IV}-Mod) rm_{CO} B₂:(P-T:he P:enter_{SV} T:cm man)
On arrival the man went in.

Examples of one participant being identified in consecutive clauses do occur but are not common:

21. keretəla ni tuaŋəna si karel wo
 B₁:(P:call_{OV}-Mod S:rm_S/cm master-his T:cm Karel) rm_{CO}
 sia mey si karel
 B₂:(P-T:he P:come_{SV} T:cm Karel)
The master called Karel and then Karel came.

A clause level tagmeme can also be deleted if the context within which the sentence occurs makes it clear, even though it is not identified within the sentence:

22. kaʔayomi waki pinelen wo itu
 B₁:(P:arrive_{iv}-Mod R:rm_r Pineleng) rm_{co} B₂:(P-T:it
 tumumpami naro
 P:descend_{sv}-Mod T:cm-rain)
On (our) arrival in Pineleng it began to rain.

When B₁ is expounded by SeqCl and B₂ by BasCl (as in 7.2.6.1c.) and both Topics express the same participant, then one Topic is deleted. The remaining Topic usually occurs at the juncture of the two clauses and can be analysed as belonging either to the preceding SeqCl or to the following BasCl, although a pause in the flow of speech often indicates the clause break. In (23) Topic is assigned to the preceding clause and in (24) it is assigned to the following clause:⁴

23. lumiqala lɛlilaʔan ni piŋkan se tuʔana
 B₁:(P:hear_{sv}-Mod O:word rm_{po}/cm Pingkan T:cm parent-her)
 se senaaŋite
 B₂:(P:tm pleased-Mod)
When Pingkan's parents heard what she said, they were entirely pleased.

24. kaʔayomi witu lɛloaŋan si lɛloiʔ
 B₁:(P:arrive_{iv}-Mod R:rm_r doorway) B₂:(T:cm snake
 si limunusomae kuliʔna lɛloiʔ
 P:tm shed_{sv}-Mod O:skin-his snake)
When he arrived at the doorway the snake had already shed his snake skin.

In a Pro-Topic clause which contains no Topic, Pro-Topic can be deleted if it refers to the same participant as that expressed in the Topic of the preceding clause:

25. makalɛʔla si tuama wo kumaan
 B₁:(P:complete-bath_{sv}-Mod T:cm man) rm_{co} B₂:(P:eat_{sv})
The man ate after bathing or The man will eat after bathing.

If the Topic exponent of the preceding clause is a pronoun (in the circumstances outlined immediately before (25) above) then either it or Pro-Topic can be deleted:

- 26a. makaləle?la aku wo kumaan
 B₁:(P:complete-bath_{SV} T:I) rm_{CO} B₂:(P:eat_{SV})
- b. makaləle?la wo aku kumaan
 B₁:(P:complete-bath_{SV}) rm_{CO} B₂:(P-T:I P:eat_{SV})
I ate/will eat after bathing.

Deletion of one of the pronouns is not obligatory and both may be present:

27. maka?atola lodey key wo key lumour
 B₁:(P:get_{SV}-Mod O:boat T:we) rm_{CO} B₂:(P-T:we P:lake_{SV})
After we got a boat we went to the lake.

Pro-Topic is obligatory when Topic is present except as noted in section 6.1.4.

7.2.6.3. Minor Sequential Constructions

A number of variants of SeqS are discussed here. Most of these contain a Base exponent other than those listed in section 7.2.6.1. while others fit the description of one or other of the major constructions but warrant further discussion.

(a) B₁ can be expounded by a Basic Numeral clause containing a class three measure noun (see 5.2.2.) or by a Basic Referential clause. These only occur in a SeqS in which B₂ is expounded by P-TC1:

28. si wəwene pinu?isea si əpato ŋaado wo
 B₁:(T:cm woman murder_{OV}-they P:tm four-mod days) rm_{CO}
 atoan
 B₂:(P:find_{rv})
*The woman they murdered was not found for four days. (lit.:
 The woman they murdered was already four days and then found.)*
29. si təlupe? ŋaado wo sia tare
 B₁:(P:tm three-mod days) rm_{CO} B₂(P-T:he Adv:just
 mareŋi
 P:return_{SV}-Mod)
*He won't return for three days yet. (lit.:He is three more days
 and only then will he return.)*
30. se tow se mana nsəŋawəka amian wo məy
 B₁:(T:cm person P:tm rm_r cm-side north) rm_{CO} B₂:(P:come_{SV})
*The people have come from the north. (lit.: The people are on
 the north side and then come.)*

A Basic Numeral or Referential clause is frequently transformed into a Sequential clause when expounding B_1 :

31. təlupe? ɲaado sia wo tare mareŋi
 B_1 :(P:three-mod days T:he) rm_{CO} B_2 :(Adv:just P:return_{SV}-Mod)
He won't return for three days yet.

32. waki talun aku wo məmi'o
 B_1 :(P:rm_R forest T:I) rm_{CO} B_2 :(P:hunt-boar_{SV})
When I got to the forest I hunted wild boar.

(b) A SeqS in which B_1 is expounded by NumCl or RefCl, which can be either a Basic or Sequential clause as described in (a) above, can itself expound the B_1 slot of a SeqS. B_2 of the embedding SeqS can contain P-TCl or BasCl. In each of the following examples (a) illustrates a SeqS in absolute position and (b) illustrates the same sentence embedded in the B_1 of a SeqS:

33a. təlupe? ɲasumədət si jon wo sia tamatən
 B_1 :(P:three-mod months T:cm Djon) rm_{CO} B_2 :(P-T:he P:pass_{OV})
It is still three months until Djon graduates.

b. təlupe? ɲasumədət si jon wo sia
 B_1 :(B_1 :(P:three-mod months T:cm Djon) rm_{CO} B_2 :(P-T:he
 tamatən wo sia tumuli witu mbale
P:pass_{OV})) rm_{CO} B_2 :(P-T:he P:visit_{SV} R:rm_R cm-house
 si tuəŋəna
T:cm master-his)
*Three months before Djon was to graduate his master called at
the house.*

34a. key waki wenəŋ wo mey
 B_1 :(P:tm rm_R Menado) rm_{CO} B_2 :(P:come_{SV})
We've come from Menado.

b. key waki wenəŋ wo mey
 B_1 :(B_1 :(P:tm rm_R Menado) rm_{CO} B_2 :(P:come_{SV}))
 əndai'pe? maaro
 B_2 :(P:tm-neg-mod rain_{SV})
When we came from Menado it wasn't yet raining.

(c) An Interrogative Predicate clause (see 6.1.6.) can expound B_1 except when its Predicate contains sey *who* or sapa *what*. When Predicate contains kawisa *when* IntPredCl obligatorily occurs within SeqS. B_2 can only contain P-TCl and the Topics of both clauses must express the same participant although one Topic is usually absent:

35. wisa o ya tələsənumi ŋkayu ya?i
 B₁:(P:where) rm_{CO} B₂:(P-T:it P:buy_{OV}-S:you-Mod T:cm-wood this)
Where did you buy this wood?
36. kawisa mbale ya?i o irədeymula
 B₁:(P:when T:cm-house this) rm_{CO} B₂:(P:build_{1V}-S:you-Mod)
When did you build this house?
37. kumura wo sia wunu?una si saŋuran
 B₁:(P:how) rm_{CO} B₂:(P-T:it P:kill_{OV}-S:he T:cm crocodile)
How did he kill the crocodile?

A SeqS in which B₁ contains IntPredCl can have the same meaning as an Interrogative Tagmeme clause (see 6.1.7.) and be almost homophonous, differing only in the occurrence of *wo* in SeqS. In the following example (a) is an IntTagCl and (b) is a SeqS:

- 38a. ka?a sia məŋame? si wiko? oki?
 Int:why P-T:she P:cry_{SV} T:cm girl little
- b. ka?a wo sia məŋame? si wiko? oki?
 B₁:(P:why) rm_{CO} B₂:(P-T:she P:cry_{SV} T:cm girl little)
Why is the little girl crying?

It might appear that if the relator *wo* were regarded as optional the two constructions would be seen to be emically identical. However, there are other factors which demand that the two be regarded as different, one being a clause and the other a sentence. One difference is that Past tense morpheme can occur in IntTagCl but not in P-TCl within SeqS (compare (4) in section 6.1.7. with (37) above). Another difference is that in IntTagCl Topic may precede Predicate (see (5b) in 6.1.7.) whereas it cannot in P-TCl within SeqS.⁵ Furthermore, deletion of the relator in (39) would result in an ungrammatical construction since Topic cannot precede Pro-Topic in IntTagCl:

39. ka?a si wiko? oki? wo sia məŋame?
 B₁:(P:why T:cm girl little) rm_{CO} B₂:(P-T:she P:cry_{SV})
Why is the little girl crying?

(d) A number of other constructions can expound B₁ of which only two are mentioned here.

B₁ can be expounded by a clause having the structure of SeqCl in which Predicate is expounded by *meyvməy* *come* and Topic by a Temporal phrase such as *əndo məkasa* *one day*, *karua ŋaado* *the second day* etc.:

40. mey endo məkasa wo sea lumaa
 B₁:(P:come_{SV} T:day one) rm_{CO} B₂:(P-T:they P:go_{SV}
 waki talun
 R:rm_R forest)
*One day they went to the forest. (lit.: Come one day and then
 they went to the forest.)*

41. mey mawo'odomi pəneroneronea si kuda
 B₁:(P:come_{SV} T:next day) B₂:(P:search_{OV}-S:they T:cm horse)
When the next day came they searched and searched for the horse.

B₁ can be expounded by the demonstrative ni'itu that:

42. ni'itu wo sea lumaa
 B₁:(that) rm_{CO} B₂:(P-T:they P:go_{SV})
After that they went.

7.2.6.4. Expanded Sequential Sentences

SeqS sometimes contains more than two clauses. In some circumstances it seems best to treat this as involving embedding, as in the type mentioned in section 7.2.6.3b. In other cases it seems best to recognise a sequence of Bases occurring at the same level. Analysis of such expanded constructions is far from complete and only one type is mentioned here. SeqS can contain a sequence of two B₂ tagmemes, each expounded by P-TCl and preceded by wo:

43. ko'onae ni wəwene ntəla'u ni jon
 B₁:(P:drink_{OV}-Mod S:rm_S/cm woman T:cm-remains rm_{PO}/cm Djon)
 wo itu irəta'nami ŋgəlas witu meja
 rm_{CO} B₂:(P-T:it P:put down_{IV}-S:she-Mod T:cm-glass R:rm_R table)
 wo sia ruməne'mi si səsoloŋ
 rm_{CO} B₂:(P-T:it P:rattle_{SV}-Mod T:cm ring)
*The woman drank what Djon had left and then she put the glass
 down on the table and then the ring (in the glass) rattled.*

44. tawimow ma'apu se kutu wo itu
 B₁:(P:almost-mod finish_{SV} T:cm lice) rm_{CO} B₂:(P-T:it
 kəsawutanami wu'uk əsa wo itu kuməresotae
 P:pluck_{RV}-S:she-Mod T:hair one) rm_{CO} B₂:(P-T:it P:squirt_{SV}-Mod
 ndaa' witu kinəsawutani mbu'uk
 T:cm-blood R:rm_R pluck_{RV}-Mod cm-hair)
*When the lice were almost finished (being removed) she acciden-
 tally plucked out a hair and then the blood squirted out from
 where the hair had been plucked.*

CHAPTER EIGHT

8. MORPHOLOGY

8.0. This chapter describes the bound morphemes of Tondano. There are two basic types of bound morphemes; affixes and clitics. Affixes are bound forms which function on the word level while clitics are forms which function on the clause or phrase level.

Bound morphemes are attached to stems, which are either simple, consisting of a single root morpheme, or derived, consisting of a simple stem plus a derivational affix. Affixes are prefixes, suffixes, infixes or circumfixes according to their order in relation to the stem. Clitics are either preclitics or postclitics according to their order relative to the stem.

In section 2.4. the general morphophonemic rules of the language are stated. There are other changes which occur in certain phonological environments but which are not regarded as wholly phonologically conditioned and hence are not treated in that section. Some of these changes occur only with certain classes of morphemes while others involve change or loss of particular sounds when occurring in certain environments. Such changes are described below.

The rules given in this section must be treated as applying before the application of the general morphophonemic rules. For instance, the glottal insertion rule, given in (a) below, must apply before the schwa assimilation rule (section 2.4.2.) to account for the fact that glottal stop is not inserted between the identical vowels in words such as *ikaanaʔ* (that is, the rule cannot apply in the environment *ka- + ənaʔ*. Schwa assimilation then results in *ikaanaʔ* not **ikaʔanaʔ*). Likewise, the rules deleting certain consonants from clusters at morpheme boundaries must apply before the schwa insertion rule (section 2.4.1.), thus removing the condition for that rule to apply.

In sections 8.1. and 8.2. the various allomorphs of each morpheme are described but allomorphic changes resulting from the application of the general morphophonemic rules or the rules presented below are not restated for each particular morpheme. The rules below are, in fact, a summary of certain changes which sets of morphemes undergo. The statement of these rules here removes the necessity for repeatedly referring to the same processes as each individual morpheme is described. Other rules could be added but there is no advantage in this if only a very limited number of morphemes are involved. For instance, *p* is lost under the same conditions as *m*, as stated in (c) below, but since the loss of *p* affects only one morpheme (because only one occurs in that environment - see 8.2.2.1b.) it is just as conveniently described in the treatment of that morpheme.

In examples bound morphemes are identified by hypens; prefixes are followed by a hyphen, suffixes are preceded by a hyphen and infixes are preceded and followed by hyphens. The two parts of a circumfix are separated by dots. Stem morphemes have no hyphen.

(a) When identical vowels occur at a morpheme boundary glottal stop is inserted between them:

ni- + impit → niʔimpit

ika- + anu → ikaʔanu

pəra + -an → pəraʔan

Glottal insertion does not occur with the Durative aspect prefix *pa-* (see 8.1.1.1.3b.) and in a few other places and is hence not treated as a general morphophonemic rule.

An alternative analysis would be to include the glottal stop in the morpheme representation (morpheme finally) with the specification that it is lost unless the following vowel is identical to the preceding vowel. This approach would have the advantage that the morpheme representation, by the presence or absence of ʔ, would indicate which morphemes take ʔ and which do not when the following vowel is identical to the final vowel of the morpheme. However, there is an important disadvantage in this approach. Some morphemes (or allomorphs of morphemes) end in a glottal stop which is always retained and it is necessary to distinguish these from morphemes which have a following glottal stop only under the circumstances stated above. These include stems as well as bound morphemes. For instance, the stem *pəra* is followed by ʔ only if the following vowel is *a*, whereas the stem *səraʔ* never loses its final ʔ:

pəra + -an → pəraʔan, pəra + -mow → pəramow
 səraʔ + -an → səraʔan, səraʔ + -mow → səraʔmow

Inclusion of ʔ in the morpheme representation would result in greater unpredictability, mainly because of the large number of stem morphemes involved, than does the present analysis.

(b) A prefix-final a is replaced by ə if the immediately following stem begins with a consonant followed by a:

ma- + kaan → məkaan
 ika- + raʔrag → ikəraʔrag
 ta- + waŋkoʔ → təwaŋkoʔ

If the prefix is of two syllables, each containing a, or if there is a sequence of two prefixes, each containing a, then both vowels change:

papa- + wareŋan → pəpəwareŋan
 maka- + wale → məkəwale
 sa- + ŋa- + maŋku → səŋəmaŋku

The change does not occur if the prefix is followed by another prefix containing a in which the change does not occur:

ma- + kasəkola (ka- + səkola) → makasəkola
 sa- + ŋatətuun (ŋa- + tətətuun) → saŋatətuun

The change does not occur preceding a few stems, including paʔyaŋ *work* and wanua *village*:

ma- + paʔyaŋ → mapaʔyaŋ
 ka- + wanua → kawanua

The change does not occur in morphemes other than prefixes:

paʔyaŋ + -an + -na + -la → paʔyaŋanala

(c) Morpheme-initial m is lost immediately following a consonant other than w, y or ʔ:

lawas + -mu → lawasu
 minareŋ + -mow → minareŋow

(d) Morpheme-final n is lost before l and n:

kaanən + -na → kaanəna
 wəran + -na → wəranə
 kumaan + -la → kumaala

and is replaced by ŋ before k:

kinaan + -ku → kinaaŋku

kaanən + -ke → kaanəŋke

(e) A sequence of two identical vowels in a stem reduces to one vowel if a following suffix would otherwise result in a sequence of three vowels, with or without an intervening glottal stop:

wee + -an → wean

kooʔʷkoʔo + -an → koʔan

laa + -an → laʔan

Capital letters used in this and other chapters have the following values:

(f) M represents a replacive homorganic nasal. It assimilates to the following consonant which is then lost. M becomes

m before p, w

n before t, s

ŋ before k and vowels

∅ elsewhere

When M is manifested as zero the following consonant is not lost. In the following examples M occurs in the hypermorpheme [məM-]:

[məM-] + waŋker → məmaŋker

+ sero → mənero

+ kaan → məŋaan

+ ali → məŋali

+ ɣənaŋ → məɣənaŋ

+ ŋaran → məŋaran

(g) C represents a consonant which takes the quality of the following consonant. In the following examples C occurs in hypermorpheme [məCə-]:

[məCə-] + tiŋkas → mətətiŋkas

+ sərəʔ → məsəsərəʔ

+ lətok → mələlətok

(h) R represents stem reduplication (see 8.1.1.1.31.).

(i) V represents a vowel which takes the quality of the preceding or following vowel as specified for each individual morpheme. In some sections (especially in Chapter Two) V represents any vowel.

(j) N represents a homorganic prenasal and occurs as the inanimate class marker (see 5.4.1.) and the inanimate topic marker (see 5.8.1.). N becomes

- m before p, w
- n before t, s and vowels
- ŋ before k, ɣ
- n or Ø before r (depending on the stem)
- Ø elsewhere

Following N the consonants w, r and ɣ are replaced by their correspondence voiced stops except that r is not replaced if the manifestation of N is Ø. In the following examples N occurs as the inanimate class marker N-:

N-	+	paŋana	→	mpaŋana
	+	timpaʔ	→	ntimpaʔ
	+	səraʔ	→	nsəraʔ
	+	kamar	→	ŋkamar
	+	ləpo	→	ləpo
	+	meja	→	meja
	+	akəl	→	nakəl
	+	ipus	→	nipus
	+	wale	→	mbale
	+	gio	→	ŋgio
	+	raaʔ	→	ndaaʔ
	+	rinaʔ	→	rinaʔ

In most situations both inanimate class marker and inanimate topic marker, both referred to here as N-, can be deleted. When N- is deleted the sound changes noted above remain, resulting in word-initial b, d and ɣ. It is necessary to make a distinction between the non-occurrence of N- and its occurrence and subsequent deletion to account for the distribution of initial b, d and ɣ. These occur word-initially only in environments in which they can also occur pre-nasalised, i.e., where N- can occur. Initial voiced stops thus result from the loss of the nasal from the clusters mb, nd and ŋg.

On the other hand, initial w, r and ɣ occur whenever N- does not occur, i.e., whenever N- is obligatorily or optionally absent, but not

when N- has been deleted, since this deletion occurs after the replacement of w, r and ɣ by their corresponding stops. Thus, in environments in which N- cannot occur only w, r and ɣ, but not voiced stops, can occur word-initially, e.g., following an animate class marker:

si weʔwek *duck* si reŋaʔ *snail* si ɣəɣori *borer*

Where N- can occur and then be deleted all three forms can occur, e.g., in the citation form of inanimate nouns or in an Object R-A phrase:

wale ~ mbale ~ bale *house*

rano ~ ndano ~ dano *water*

ɣio ~ nɣio ~ gio *face*

As noted above, N- is sometimes manifested as n before r (in which case r is replaced by d) and sometimes as zero (in which case r remains). The form depends on the particular stem and is not phonologically predictable.¹

8.1. AFFIXES

8.1.0. Affixes are most conveniently divided into verbal morphemes, which are inflectional, and non-verbal morphemes, which are derivational.

When two morphemes have homophonous representations they are distinguished by a superscript number (1 or 2) if they are both of the same type, i.e., if they are both derivational or both inflectional. This distinction is not made if the homophonous morphemes belong to different types. Homophonous hypermorphemes (which are described below) are also distinguished by superscript numbers.

8.1.1. Verbal Morphology

8.1.1.0. There are three categories of inflectional morphemes in Tondano: tense, voice and aspect. Every verb distinguishes all three categories.² There are two tenses: Past and Non-past, four voices: Subject, Object, Instrument and Referent voices and ten aspects. The aspects are listed in section 8.1.1.1.3.

The aspects are not all mutually exclusive; some aspects may occur in the presence of others while some require the obligatory presence of other aspects. This might appear at first to be sufficient ground for splitting aspect into a number of categories according to possibilities of co-occurrence. However, this approach would require the recognition of six inflectional categories, including four in place of aspect. Three of the categories would contain only one member each and would

be of optional occurrence. In the present analysis there are only three inflectional categories. All are obligatory and aspect can occur more than once with some verbs.

A name is given to each inflectional morpheme. These labels tend to be unsatisfactory because, for many affixes, it is not possible to sum up their function in a single word. The function of a particular inflectional morpheme is often affected by such factors as the meaning of the verb stem and the distribution of the verb. Factors affecting the function of voice affixes are described in section 3.1.0.

Another complicating factor in stating meaning is the fact that the functions of tense and aspect morphemes frequently intersect in such a way that it is difficult to describe the function of the morpheme of one category without reference to the function of the morpheme of the other category with which it co-occurs. A somewhat similar interaction sometimes results when two aspect morphemes co-occur. In such cases it seems best to treat the morpheme cluster as being a functional unit without attempting to describe separately the functions of the individual morphemes of which the cluster is composed.

A further problem in attempting to describe the function of each morpheme separately is that of assigning meaning to zero forms. Each of the categories of tense and aspect has an unmarked member. In addition, several morphemes have no overt manifestation in the presence of other morphemes. This situation is often handled by recognising zero morphemes or allomorphs. This approach, however, would often result in clumsy treatment of the Tondano data because of the necessity for positing a sequence of distinct zeros. The following example illustrates this.

Punctiliar aspect is not overtly marked and in the presence of Past tense morpheme {-in-} Object voice is not overtly marked. The verb *tinələs has been bought* consists of the stem *tələs buy* and Past tense morpheme, manifested as -in-. Any attempt to keep the three inflectional categories distinct here would result in the recognition of a zero form expressing Punctiliar aspect, a zero form expressing Object voice and -in- functioning solely to signal Past tense. Yet all three categories are unambiguously signalled by the fact that the total inflectional shape is -in-.

Faced with somewhat similar (though more acute) problems in Ilianen Manobo, Shand (1964) rejects the use of zero morphemes and gives morphemic status to the whole cluster of morphemes present in the verb, noting (p66) 'In these cases the cluster is the morphemic unit which signals the categories present.' Shand would treat such Tondano verbs as *tinələs* as morpheme clusters because 'the contrastive categories are

signalled adequately by the total sequence of each verb form' (p63).

Shand's approach is adopted by Prentice (1971) for Timugon Murut with the modification that the verb stem is excluded from the morpheme cluster. Prentice carries the concept a step further by giving morphemic status to all clusters of inflectional morphemes even where all inflectional categories are overtly present within the cluster (Shand does not apply the concept in such cases). These complex morphemes he calls hypermorphemes.

The hypermorpheme concept proposed by Prentice is adopted here for the two reasons discussed above, namely (i) The functions of tense and aspect morphemes often interact so that the meaning of one cannot readily be described without reference to the meaning of the other. This is overcome by giving morphemic status to the morpheme cluster and describing the meaning of this hypermorpheme rather than attempting to describe separately the meanings of the individual morphemes of which it is constituted. (ii) Function does not have to be assigned to zero forms. The usefulness of avoiding zeros is especially clear in such words as *tinələs* where two separate zeros would be required, each having a distinct function. The fact that a certain category is not overtly manifested has an effect on the total shape of the morpheme cluster. It is this total shape, or hypermorpheme, which expresses all the categories present. Thus, as an example, {-in-} as a morpheme signals Past tense. But when it (or strictly, when one or other of its manifestations) occurs as the total inflectional shape, as in *tinələs*, it unambiguously signals all the categories present - in this case Past tense, Object voice, Punctiliar aspect.³

Every hypermorpheme, besides expressing tense and aspect, expresses one of the four voices. The function of voice morphemes can always be isolated from that of the other categories. However, it is necessary to include voice in the hypermorpheme since the voice morpheme is at times itself the total inflectional shape. For instance, the verb *tələsən will be bought* contains only one affix, Object voice morpheme {-en} which, as the hypermorpheme -en, expresses Object voice, Non-past tense, Punctiliar aspect.

Hypemorpheme representations are placed between rectangles. Thus, the verb *tinələs has been bought* contains the hypermorpheme [-in-] which consists of Past tense morpheme {-in-} and signals the categories Object voice, Past tense, Punctiliar aspect. The verb *minapatələs has caused to buy* contains the hypermorpheme [minapa-] which consists of Subject voice morpheme {-um-}, Past tense morpheme {-in-} and Causative aspect morpheme {papa-} and signals the categories Subject voice, Past tense, Causative aspect.

Since the function of voice is described in Chapter Three this category need not be treated further here. Thus, although voice morphemes are incorporated into hypermorphemes, their function is not considered in the treatment of hypermorpheme meaning. This allows the description of hypermorphemes in terms of sets. Any two hypermorphemes which differ solely in the voice morphemes they incorporate belong to the same hypermorpheme set. All members of a set can be described together in terms of their tense and aspect-marking functions without reference to the focusing function of each individual member.

Each set of hypermorphemes is represented by the Subject voice member of the set, i.e., the hypermorpheme of the set which expresses Subject voice, placed between wedges. Thus <-um-> represents the set of hypermorphemes of which [-um-] is the Subject voice member. The set is referred to by citing the Subject voice member. Thus the set exemplified above is referred to as the <-um-> set. Often, in section 8.1.1.2., the representation is also referred to in the singular (e.g., '<-um-> is...') but this is always to be understood as referring to all members of the set. An exception to the choice of the Subject voice hypermorpheme as representative of the set is with sets containing Non-volitional aspect. Since the Subject voice members of these sets are homophonous with the Subject voice members of other sets the Instrument voice members are chosen to represent these sets, thus: <ika-> and <naika->.

In section 8.1.1.1. the individual inflectional morphemes are listed and their functions described. Most hypermorphemes have a number of different manifestations, either phonologically or morphologically determined. However, since the manifestation of a hypermorpheme is merely the sum of the allomorphs of its constituent morphemes, hypermorpheme manifestation needs no description further than that given in section 8.1.1.1.

8.1.1.1. *Inflectional Morphemes*

8.1.1.1.0. Inflectional morphemes are grouped according to category and are described as follows. First, the name of the morpheme is given, followed by an abbreviated label in parentheses. These abbreviated labels are employed in section 8.1.1.2. to indicate the morphemes present in hypermorphemes. Below this the morpheme representation is given between braces. The allomorphs are then listed, each accompanied by a statement of distribution and examples. Each example has the following format: A verb stem is given, accompanied by the representations of all other morphemes overtly present. Prefixes precede the stem and suffixes follow. If two or more prefixes co-occur their

relative ordering reflects their order within the word. Infixes immediately precede the morpheme within which they are inserted. A re-write arrow follows and to the right of this the phonemic manifestation of the verb is given. Modifications to allomorphs resulting from the general morphophonemic rules (see 2.4.) and from the rules in section 8.0. are not described for each morpheme but are included in examples.

8.1.1.1.1. Voice Morphemes

(a) Subject Voice (SV)

morpheme: {-um-}

-um- immediately precedes the first vowel of the word (whether in the stem or in a prefix). When the word begins with a labial consonant or a vowel the first syllable, i.e., (C)u, is then deleted:

{-um-} + ali → mali

{-um-} + edo → medo

{-um-} + pate → mate

{-um-} + wewe → mewe

{-um-} + {pa-} + wewe → mawewe

Elsewhere no deletion occurs:

{-um-} + tiŋkas → tumiŋkas

{-um-} + ɣorəm → ɣumorəm

The combination of {-um-} with Past tense morpheme {-in-} is described in section 8.1.1.1.2b. and its combination with Non-volitional morpheme {ka-} is described in section 8.1.1.1.3j.

(b) Object voice (OV)

morpheme: {-ən}

-n follows a vowel:

ali + {-ən} → alin

edo + {-ən} → edon

-ən follows a consonant:

rədey + {-ən} → rədeyen

tow + {-ən} → towən

kaan + {-ən} → kaanən

In accordance with the schwa assimilation rule (see 2.4.2.), ə assimilates to the final vowel of a word ending in ʔ:

lutuʔ + {-ən} → lutuʔun

tiroʔ + {-ən} → tiroʔon

Homophony with {-an}¹ occurs when the vowel preceding stem-final ʔ is a:

wukaʔ + {-ən} → wukaʔan

wukaʔ + {-an}¹ → wukaʔan

It should be noted that -ən is lost when allomorph -n is followed by l or n (see 8.0d.):

ali + {-ən} + -la → alila

edo + {-ən} + -na → edona

In the presence of Past tense morpheme {-in-} Object voice morpheme has zero manifestation:

{-in-} + tələs + {-ən} → tinələs

{-in-} + {pa-} + tələs + {-ən} → pinatələs

(c) Instrument voice (IV)

morpheme: {i-}

i- occurs in all environments:

{i-} + wewe → iwewe

{i-} + ensoŋ → iensoŋ

y- occurs in free variation with i- word-initially before a vowel:

{i-} + ensoŋ → iensoŋ ~ yensoŋ

{i-} + ureʔ → iureʔ ~ yureʔ

Word-initially, i.e., when there is no preceding N- or Past tense marker na-, {i-} is frequently omitted in normal speech, especially following topic marker si:⁴

{i-} + wewe → iwewe ~ wewe

{i-} + {pa-} + wewe → ipawewe ~ pawewe

{i-} + ensoŋ → iensoŋ ~ yensoŋ ~ ensoŋ

{i-} is lost immediately following preclitic {nai-} (see 8.2.3.):

{nai-} + {i-} + waŋker → naiwaŋker

(d) Referent voice (RV)

morpheme: {-an}¹

-an occurs in all environments:

edo + {-an}¹ → edoan

tələs + {-an}¹ → tələsan

pəra + {-an}¹ → pəraʔan

8.1.1.1.2. Tense Morphemes

(a) Non-past tense (Npast)

unmarked

(b) Past tense (P)

morpheme: {-in-}

na- occurs immediately preceding Instrument voice morpheme {i-}:

{-in-} + {i-} + ali → naiali

{-in-} + {i-} + todo → naitodo

{-in-} + {i-} + {pəCə-} + todo → naipətətodo

nan- occurs with {i-} if clitic {-mow} (see 8.2.4.) comes between them:

{-in-} + {i-} + teaʔ + {-mow} → nanoiteaʔ

If any other clitic comes between them then either na- or nan- occurs:

{-in-} + {i-} + todo + {-ku} → nakuitodo ~ nankuitodo

ni- occurs with stem-initial vowels if there are no other prefixes or infixes:

{-in-} + edo → niedo

{-in-} + ali → niali

{-in-} + ideʔ → niʔideʔ

When {-in-} co-occurs with Subject voice marker {-um-} in words in which the first syllable is lost (see 8.1.1.1.1a.), -in- occurs immediately after -um-, which reduces to m-:

{-um-} + {-in-} + ali → minali

{-um-} + {-in-} + wareŋ → minareŋ

{-um-} + {-in-} + {pa-} + tələs → minatələs

Elsewhere {-um-} and {-in-} combine in the portmanteau form -im-:

{-um-} + {-in-} + tiŋkas → timiŋkas

{-um-} + {-in-} + ɣorəm → ɣimorəm

In other environments -in- occurs immediately following the first consonant of the word:

{-in-} + ɣorəm + {-an}¹ → ɣinoreman

{-in-} + tələs → tineləs

{-in-} + {pa-} + tələs → pinatələs

8.1.1.1.3. Aspect Morphemes

(a) Punctiliar aspect (Punct)

unmarked

(b) Durative aspect (Dur)

morpheme: {pa-}

pa- occurs in all environments, modified by the rule given in 8.0b. but not by the rule in 8.0a., i.e., glottal insertion does not occur after {pa-}. Co-occurrence with {-um-} results in the loss of the first syllable, as described in section 8.1.1.1.1a.

{pa-} + tələs + {-ən} → patələsən

{-um-} + {pa-} + tələs → matələs

{i-} + {pa-} + waŋker → ipəwaŋker

{pa-} + ali + {-ən} → paalin

(c) Intensive aspect (Int)

morpheme: {pəM-}

pəM- occurs in all environments:

{pəM-} + kiʔit + {-ən} → pəŋiʔitən
 {-in-} + {pəM-} + tələs → pinənələs
 {pəM-} + awo + {-ən}¹ → pəŋawoan

With stems beginning with r, l, ɣ or a nasal followed by a, morpho-
 phonemic rules result in homophonous allomorphs for {pa-} and {pəM-}:

{pa-} + rawak + {-ən} → pərawakən
 {pəM-} + rawak + {-ən} → pərawakən

(d) Desiderative aspect (Des)

morpheme: {pəCə-}

paʔ- occurs with stems beginning with a vowel:

{-um-} + {pəCə-} + aro → maʔaro
 {pəCə-} + upiʔ + {-ən} → paʔupiʔin
 {pəCə-} + ənaʔ + {-ən}¹ → paʔanaʔan

pəCə- occurs with stems beginning with a consonant:

{-um-} + {pəCə-} + tiŋkas → mətətiŋkas
 {pəCə-} + keoŋ + {-ən} → pəkəkeoŋən
 {-um-} + {pəCə-} + niʔnis → mənəniʔnis

When pəCə- co-occurs with another aspect morpheme the syllable pa
 is lost leaving Cə following the other aspect morpheme. Allomorph paʔ-
 does not co-occur with other aspect morphemes:

{papa-} + {pəCə-} + looʔ + {-ən} → papələloʔon
 {-um-} + {paki-} + {pəCə-} + rumun → makirərumun

(e) Completive aspect (Comp)

morpheme: {paka-}

paka- occurs in all environments:

{paka-} + antuŋ + {-ən} → pakaʔantuŋən
 {-in-} + {i-} + {paka-} + todo → naipakatodo
 {-um-} + {paka-} + ruβər + {-mow} → makaruβərɔw

(f) Habitual aspect (H)

morpheme: {pəCəM-}

pəCəM- is the only allomorph. C assumes the quality of the following consonant which, in this case, is M. This morpheme does not occur with stems beginning with those consonants before which M is manifested as zero (see 8.0f.):

{-um-} + {pəCəM-} + edo → məŋəŋedo

{-um-} + {pəCəM-} + wəŋker → məməməŋker

{pəCəM-} + tələs + {-ən} → pənənələsən

(g) Causative aspect (Caus)

morpheme: {papa-}

papa- occurs in all environments:

{papa-} + loŋkot + {-ən}¹ → papaloŋkotən

{i-} + {papa-} + aŋkat → ipapa'aŋkat

{-um-} + {papa-} + ta'u → məpəta'u

(h) Petitive aspect (Pet)

morpheme: {paki-}

paki- occurs in all environments:

{paki-} + pələŋ + {-ən} → pakipeləŋən

{i-} + {paki-} + aŋkat → ipakiaŋkat

{-um-} + {-in-} + {paki-} + wərəŋ → minakiwərəŋ

(i) Repetitive aspect (R)

morpheme: {R-}

This morpheme is manifested as the reduplication of the first two syllables of the stem with the exception of the final consonant of the second syllable:

{-um-} + {pa-} + {R-} + tiŋkas → matiiŋkatiŋkas

{-um-} + {pa-} + {R-} + leley → maleleleley

{-um-} + {pa-} + {R-} + ali → maalii

{-um-} + {pa-} + {R-} + piara → mapiapiara

{-um-} + {pa-} + {R-} + kiwee → makiwekiwee

If {R-} co-occurs with {pəM-} then M is reduplicated. If M is

manifested as zero then the stem-initial consonant still occurs in the reduplication:

{-um-} + {pəM-} + {R-} + ae → məŋaəŋae

{-um-} + {pəM-} + {R-} + tiŋkas → məniŋkaniŋkas

{-um-} + {pəM-} + {R-} + rubər → mərubərubər

If the reduplication would otherwise result in a sequence of two identical vowels then, in accordance with the morphophonemic rules, glottal stop is inserted between them and the vowel following ? may then be deleted:

{pa-} + {R-} + upus + {-an}¹ → paupu?upusan ~ paupu?pusan

{-um-} + {pa-} + {R-} + arap → maara?arap ~ maara?rap

If reduplication results in ə immediately following another vowel then assimilation occurs (see 2.4.2.):

{-um-} + {pa-} + {R-} + əna? → maanaana?

Infixes occur in the reduplicated portion of the stem:

{-um-} + {R-} + kelaŋ → kumelakelaŋ

{-um-} + {-in-} + {R-} + tiŋkas → timiŋkatiŋkas

(j) Non-volitional aspect (NV)

morpheme: {ka-}

{ka-} combines with the Subject voice marker {-um-} in the port-manteau form ma-:

{-um-} + {ka-} + pəte? → mapəte?

{-um-} + {ka-} + apu → ma?apu

This form is, in most environments, homophonous with that produced by the combination of {-um-} and {pa-}:

{-um-} + {ka-} + woŋke → mawoŋke

{-um-} + {pa-} + woŋke → mawoŋke

With some stems in Non-volitional Battery Four (see 3.1.4.4.) the combination of {-um-} and {ka-} produces maka-:⁵

{-um-} + {ka-} + sina?u → makasina?u

ka- occurs elsewhere:

{i-} + {ka-} + anu → ika?anu

{ka-} + ləsoŋ + {-an}¹ → kaləsoŋan

$$\{ka-\} + ta'u + \{-an\}^1 \longrightarrow k\acute{e}ta'u\acute{a}n$$

$$\{-in-\} + \{ka-\} + ra'rag + \{-an\}^1 \longrightarrow kin\acute{e}ra'rag\acute{a}n$$

(k) Reciprocal aspect (Recip)

morpheme: $\{-an\}^2$

-an occurs in all environments:

$$\{-um-\} + \{p\acute{e}c\acute{e}-\} + saw\acute{a}n + \{-an\}^2 \longrightarrow m\acute{e}s\acute{e}saw\acute{a}n\acute{a}n$$

$$\{-um-\} + \{-in-\} + \{pa-\} + ret\acute{e}n + \{-an\}^2 \longrightarrow min\acute{a}ret\acute{e}n\acute{a}n$$

8.1.1.2. *Hypermorphemes*

8.1.1.2.0. First are described hypermorpheme sets containing only one aspect morpheme and then sets containing more than one aspect. For convenience these are called simple hypermorphemes and complex hypermorphemes respectively. Some aspects occur only in combination with others and so are mentioned only in the section on complex hypermorphemes.

In the list of hypermorpheme sets below, each Non-past set, i.e., each set of hypermorphemes not containing the Past tense morpheme, is immediately followed by the corresponding Past tense set. The meanings of the Non-past hypermorphemes are described but generally it is not necessary to state the meanings of the corresponding Past tense forms as these are predictable, having a constant meaning relation to their Non-past counterparts. In these cases the Past tense hypermorphemes are listed with examples but without an accompanying statement of meaning. In general the Past tense morpheme $\{-in-\}$ specifies an action which has already occurred in relation to the time on which interest is centred. This time may be the present, as in discourse, or some time in the past, as in narrative. In the case of some hypermorphemes tense and aspect interact and some discussion of the function of the Past tense forms is necessary.

Each hypermorpheme set is described as follows. First, the name of the set is given. Beneath this the abbreviated labels are given for the tense and aspect morphemes included in hypermorphemes of the set. The representations of the member hypermorphemes of the set are then given, each followed by the abbreviated label for the voice it expresses. The functions of the hypermorphemes are then described and examples given. As mentioned in section 8.1.1.0., the various manifestations of each hypermorpheme are not separately described.

8.1.1.2.1. *Simple Hypermorphemes*

(a) The $\{-um-\}$ set

Npast; Punct

members:

[-um-] SV

[-ən] OV

[i-] IV

[-an] RV

These hypermorphemes consist solely of a voice affix and occur only in Active clauses. Members of this set incorporate Punctiliar aspect which in general has an aoristic function, i.e., it simply denotes the occurrence of an action, in contrast with aspects which specify the progress or completion etc. of an action. Punctiliar could also be regarded as a neutral aspect, occurring whenever one of the more specific aspects is not required.

Occurring in Basic clauses and in most derived clause types the <-um-> set hypermorphemes usually indicate future action:

1. wo'odo ku mareṅəla waki waleku
I'll return home tomorrow.
2. kayu alinami wo'odo
He'll bring the wood tomorrow.
3. ku ra'ipe? kumaan
I won't eat yet.

The <-um-> set also occur in positive Imperative clauses (see 6.1.5. for examples).

In Sequential clauses (see 6.1.3.) and Pro-Topic clauses (see 6.1.4.) the <-um-> set occur in situations in which the <-im-> set would occur in Basic clauses and in other derived clause types. This can be seen in the following examples. In each example (a) includes a Basic clause with <-im-> which is replaced in (b) by a Sequential or Pro-Topic clause with <-um->:

- 4a. meṅkoləla si ema witu mbalena si kapteṅ si timuli witu reten
əmbale ni ema
- b. meṅkoləla si ema witu mbalena o sia tumuli witu reten əmbale ni
ema si kapteṅ
*When Emma returned home the captain called in on the house next
to Emma's.*
- 5a. si tuama si limaa witu mbale ni ema wo itu ri'ripəna namutəna
mbuṅaṅ
- b. lumaa witu mbale ni ema si tuama wo itu ri'ripəna namutəna mbuṅaṅ
The man went to Emma's house and then cut the roots of the flower.

When the verb immediately follows adverbs meaning *once*, *twice*, etc. or adverbs of class e (see 4.2.4.) <-um-> set hypermorphemes occur where otherwise the <-im-> set would occur:

- 6a. makarua ku minewe nisia
 b. ku makarua mewela nisia
I hit him twice.
- 7a. ku kimaanow *I've eaten.*
 b. ku tare kumaala *I've just eaten.*

(b) The <-im-> set

Past; Punct

members:

□-im-□ SV

□-in-□ OV

□nai-□ IV

□-in-...-an□ RV

The <-im-> set occur in most Active clause types except Sequential and Pro-Topic clauses (in Sequential sentences) to indicate a simple past action, i.e., an action which occurred or which has/had occurred (but not one which was in progress):

1. kaawi'in si tuama limaa waki uma
The man went to the gardens yesterday.
2. si tuama limaamow waki uma
The man has gone to the gardens.
3. si rai'mow witu ntampa niatoaneala nisia
He was no longer in the place where they had seen him. or
He is no longer in the place where they saw him.
4. bureṅa ya'i tinələsi waki pasar
These eggs were bought in the market.

Some verb stems can denote either an action or the state resulting from that action. With these verbs the <-im-> set, in addition to indicating past action, also indicate a present state and contrast with the <ma-> set which mark present action. The following pairs illustrate this:

- 5a. si simake si kuda *He is riding the horse.*
 b. si məsake si kuda *He is mounting the horse.*
- 6a. si rimubər witu kadera *He is sitting in the chair (state).*
 b. si marubər witu kadera *He is sitting in the chair (action).*

- 7a. si minake labuŋ wəru *He is wearing a new shirt.*
 b. si məpake labuŋ wəru *He is putting on a new shirt.*
- 8a. si rinetenŋku *I am next to him.*
 b. si paretənəŋku *I am approaching him.*
- 9a. loʔloʔ sinuʔun ne wəwene
 The women are carrying the baskets on their heads.
 b. loʔloʔ pasuʔunən ne wəwene
 The women are putting the baskets on their heads.

(c) The <ma-> set

Npast; Dur

members:

□ma-□¹ SV

□pa-...-ən□ OV

□ipa-□ IV

□pa-...-an□ RV

The <ma-> set occur with verbs functioning in Active clauses and indicate an action in progress or an action which usually or regularly occurs:

1. si məkaan witu meja *He is eating at the table.*
2. susur nədo si məkaan wia meja yaʔi
 Every day he eats at this table.
3. məwareŋow sea... *While they were returning home...*
4. pasar okiʔ pəwaŋkeran sərəʔ tiey wo sapi
 A small market where fish, pigs and cows are sold.
5. bale paanaʔana *The house where he lives.*
6. si tinuʔmər maedo wuʔana
 He was caught (in the act of) taking fruit.

The Subject voice hypermorpheme □ma-□¹ also occurs in Reciprocal clauses (see 8.1.1.2.2.2.).

(d) The <mina-> set

Past; Dur

members:

□mina-□¹ SV

□pina-□ OV

□naipa-□ IV

□pina-...-an□ RV

məŋasʉ *hunt with dogs (asʉ dog)*
 məŋawok *hunt rats (kawok rat)*
 məmiʔo *hunt wild boar (wiʔo wild boar)*
 məŋələsey *trap fish (kələsey fish trap)*
 məŋopas *fish with line (opas fish hook)*

(f) The <minəM-> set

Past; Int

members:

□minəM-□ SV

□pinəM-□ OV

□naipəM-□ IV

□pinəM-...-an□ RV

These are the Past tense counterparts of the <məM-> set and the statements made in section (e) above refer also to this set.

(g) The <məCə-> set

Npast; Des

members:

□məCə-□ SV

□pəCə-...-ən□ OV

□ipəCə-□ IV

□pəCə-...-an□ RV

These hypermorphemes occur in Active clauses. They usually indicate an intention or desire to perform the action:

1. ku mətətələs towaku *I'd like to buy cigarettes.*
2. si laa məkəkawok təŋaʔ
He went with the intention of climbing the areca palm.
3. bale nipərərədey wia
It is intended to build the house here.
4. si kuda pərərənkitəna
the horse which he intends to steal

When the subject is inanimate <məCə-> indicates that the action is about to occur, on the verge of happening. It may also give this sense in some contexts with an animate subject:

5. woʔo məʔaro *It looks like it's going to rain.*

6. ntoka mələlətok
The mountain (i.e., volcano) is about to erupt.

7. si məsəsakemow si kuda
He's just about to get on the horse.

<məCə-> also occurs with prohibitive Imperatives in place of <-um-> which occurs in other Imperatives:

8. tea? pəwəwunu?un aku *Don't kill me!*

9. tea? mətətiŋkas rəpət *Don't run fast!*

Most stems which occur in Non-volitional Battery Three without an object participant (see 3.1.4.3.) occur with an object in Active Battery Ic (see 3.1.1.1.3.) or Active Battery 3b (see 3.1.1.3.2.) affixed with <məCə-> instead of <ma->. It should be noted that since the Subject voice affixation of these verbs in NB3 is ma- (see q below) the constructions would be homophonous in Subject voice if it were not for the occurrence of məCə- in place of ma- in the Active constructions:

10a. si tuama məsəsənsə? nisia *The man bores him.*

b. si tuama masənsə? nisia *The man is bored with him.*

11a. ku ma?ide? nisia *I frighten him.*

b. ku maide? nisia *I am afraid of him.*

The Subject voice hypermorpheme [məCə-] also occurs in Reciprocal clauses (see 8.1.1.2.2.2.).

(h) The <minəCə-> set

Past; Des

members:

[minəCə-] SV

[pinəCə-] OV

[naipəCə-] IV

[pinəCə-...-an] RV

Members of this set indicate that the subject wanted or intended to carry out the action but that it was never performed:

1. ku minətətələs towaku ta'an ənda?ila si loit
I wanted to buy cigarettes but I didn't have any money (lit.: but there wasn't any money).

2. pinəwəweŋkula mbu?ana si tole oki? ta'an si rai? miney
I intended to give the fruit to the boy but he didn't come.

- (i) The <maka-> set
 Npast; Comp
 members:
 []maka-[]¹ SV
 []paka-...-ən[] OV
 []ipaka-[] IV
 []paka-...-an[] RV

These hypermorphemes occur in Active clauses. With most verbs they indicate that the action is on the point of completion, in which case modal {-mow} obligatorily occurs:

1. ku məkəkaanow *I'm just about to finish eating.*
2. kaan ipəkətanəməw ne tow
The people have almost finished planting the rice.

In Sequential clauses (see 6.1.3.) <maka-> indicates that the action has/had/will have been entirely completed before the commencement of the action of the following clause. Modal {-la} or {-mae} is obligatory:

3. makakoo'la sea se nanoikatəkəl waya ka se tinəwəlow
After they had finished drinking they all fell asleep because they were drunk.
4. pakaturu'nala nisea itu wo sia lumila? ...
After she had finished showing it to them she said ...

With transitive verbs <maka-> may indicate that the action is completely, fully performed on all the objects. With this sense modal {-mow} does not occur and the Head of the phrase expressing object in all recorded examples is waya *all*:

5. mbaya ipəwəŋkerəna pakaedonitela ni ema
Everything he sells is all bought up (lit.: taken) by Emma.
6. si məkəwəŋker əmbaya ntaadey
He completely sells off all his corn.

With stems which occur as locative nouns <maka-> indicates that the subject goes to (intransitive) or puts something in (transitive) the precise, exact place specified in the stem:

7. si woley si makatəmpok witu nsa'ut
Monkey is going to the very top of the coconut tree.
8. kadera nipakaunərəna witu nkintal
He's putting the chair right in the centre of the yard.

With stems which also occur as descriptives, Subject voice hypermorpheme [maka-]¹ has an augmentative meaning, indicating that the quality expressed by the stem increases. The other hypermorphemes do not occur with this function. Modal {-mow} is obligatory:

9. key nu tu'amū key makatu'amow
We, your parents, grow older and older.
10. bu'ukəna makapuragasow
Her hair is getting thinner and thinner.

With stems which indicate a bodily state, hypermorpheme [maka-]¹ indicates that the state is continued, maintained:

11. si makarubər witu ŋkadera
He remained seated in the chair.
12. si pinakirubərənku ta'an si makarədeyite
I've invited him to sit but he just remains standing.
13. makapənəs *Keep quiet!*

The combination of aspect morphemes {paka-} and {R-} indicates that the action is thoroughly, carefully performed (see 8.1.1.2.2.2.).

(j) The <minaka-> set

Past; Comp

members:

[minaka-]¹ SV

[pinaka-] OV

[naipaka-] IV

[pinaka-...-an] RV

With most verbs this set indicate that the action has already been completed. Clitic {-mow} is obligatory:

1. kaan nanoipəkətanəm ne tow
The people have already finished planting the rice.
2. ku minəkəkaanow
I've already finished eating.
3. wotəl niwareŋitemi sa itu pinakakoo'mola
The bottle is to be returned when (its contents are) finished being drunk.

It should be noted that these hypermorphemes do not occur in Sequential clauses, their place being taken by <maka-> plus clitic {-la}, as noted in (i) above.

With stems which occur as locative nouns the <minaka-> set indicate that the subject has/had gone, or taken something, precisely, exactly to the place specified by the stem (past action). With intransitive verbs they also indicate that the subject is in the exact place specified by the stem (present state):

4. si woley minakatəmpok witu nsaʔut
Monkey has gone to the very top of the banana tree. or Monkey is at the very top of the banana tree.
5. kadera naipakaunər witu ŋkintal
The chair has been placed right in the centre of the yard.

With stems which indicate a bodily state Subject voice hypermorpheme [minaka-]¹ indicates a continued state, being synonymous with [maka-]¹ in this context:

6. si makakusəp/minakakusəp witu mbawaʔ meja
He remained crouching under the table.
7. si makatəbela/minakatəbela witu ntobolna rəreen
He's remaining leaning against the fence post.

(k) The <məCəM-> set

Npast; H

members:

[məCəM-] SV

[pəCəM-...-ən] OV

[ipəCəM-] IV

[pəCəM-...-an] RV

These hypermorphemes occur with verbs in Active clauses and indicate that the action is regularly or habitually performed:

1. si pənənulisəŋku surat
I regularly write letters to him.
2. se paʔar mənənəraʔ sapi
They like to eat beef all the time.
3. tampa pəŋəŋaanəŋku
the place where I regularly eat
4. se sərəʔ ipəməməŋker wiaʔi
Fish are sold here.

When Subject voice hypermorpheme [məCəM-] occurs in a Nominalised clause the construction usually indicates a person whose occupation is expressed by the clause:

5. si mēmemaŋker
the vendor (i.e., the one who habitually sells)
6. si mēŋəŋawo səra?
the fisherman (i.e., the one who habitually searches for fish)

- (l) The <minəCəM-> set
Past; H
members:
[minəCəM-] SV
[pinəCəM-] OV
[naipəCəM-] IV
[pinəCəM-...-an] RV

These hypermorphemes indicate that the action used to be habitually performed but is no longer:

1. si pinənənulisəŋku surat
I used to always write letters to him.
2. si minēmemaŋker səra?
He used to sell fish (for a living). or as a Nominalised clause:
the former fish seller

- (m) The <mapa-> set
Npast; Caus
members:
[mapa-] SV
[papa-...-ən] OV
[ipapa-] IV
[papa-...-an] RV

These hypermorphemes occur with verbs in Causative clauses and indicate that the causer lets or makes the subject perform the action. A somewhat different function occurs in some Causative batteries. Further description, with examples, is given in section 3.1.2.

- (n) The <minapa-> set
Past; Caus
members:
[minapa-] SV
[pinapa-] OV
[naipapa-] IV
[pinapa-...-an] RV

- (q) The <ika-> set
 Npast; NV
 members:
 []ma-[]² ~ []maka-[]² SV
 []ika-[] IV
 []ka-...-an[] RV

These hypermorphemes occur in Non-volitional clauses. As mentioned in section 3.1.4.0., the meaning varies from one battery to another and in some batteries depends a lot on context and the meaning of the verb stem. In general, constructions in Non-volitional Battery One indicate action which the subject performs accidentally or manages, often unexpectedly, to perform:

- 1a. maatoato tea? ko ikəsawutəla wu?uk əsa
Be careful lest you accidentally pluck out a hair.
 b. kaməmurian wo aku ikəsawutəla wu?uk əsa
Eventually I managed to pluck out a hair.

With many stems the <ika-> set usually express ability or, with rai? not, inability:

2. sa itu wuka?an pəpalən si kağorəm witu mbale
If the door is open he'll be able to go into the house.
 3. sa itu karoŋkitanow alini wia mbale
If (you) succeed in stealing it bring it to the house.
 4. si kiməluŋ witu ndai? kalo?ala ne tow walina
He hid where he couldn't be seen by other people.
 5. se kasuat ne ko?ko? se rai?mow katotoran ka se kəlaker
The species of birds can't be mentioned because there are too many of them.

With some stems <ika-> gives a sense of compulsion:

6. tətewel ni əsa kironkumi wo rior se ikatəla?u wia
I'll hide the wings of one of them so that they will be forced to remain here.
 7. sa kinawonoran əlalan wo kow kaana? mana ndai? si wale ...
If the road has collapsed and you are forced to stop where there aren't any houses...

- (r) The <naika-> set
 Past; NV
 members:

Ømina-Ø² ~ Øminaka-Ø² SV

Ønaika-Ø IV

Økina-...-anØ RV

1. kokogəna naikatəbo'mae witu mbatu
His head bumped against the stones.
2. mbayanea se naikalo'sit ka si wəwene iti'i si sinina'uneamow
All of them were startled because they had recognised the woman.
3. kota ya'i kinatowaŋku *I was born in this town.*
4. baya mbuŋaŋ witu ŋkintal minawələsow
All the flowers in the garden have withered.
5. makakoo'la sea se nanoikatəkəl waya ka se tinəwəlow
After they had finished drinking they all fell asleep because they were drunk.

8.1.1.2.2. Complex Hypermorphemes

8.1.1.2.2.1. Hypermorphemes containing Repetitive aspect

Repetitive aspect morpheme {R-} always occurs in combination with at least one other aspect. It can combine with all other aspects except Habitual. For this reason it is not necessary to list all the hypermorphemes in which {R-} occurs. In Active clauses {R-} tends to occur much more frequently with {pəM-} (see 8.1.1.2.1e.) than with any other aspect. The function of {R-} can generally be isolated from that of the rest of the hypermorpheme and it usually indicates a continuous state or an action which is repeatedly or continually performed:

1. makaromi taekan lokon məŋaluŋaluare'mi nawun
Until the present Lokon (a volcano) still continues to give out smoke.
2. si asu məŋintuŋintuk *The dog is barking and barking.*
3. kətəkətərən əŋkəli *Keep holding the oar tightly!*
4. si mənəkənəkəlite *He's just sleeping on and on.*
5. ku tuməgategam witu ləpo
I'll continue to keep guard over the rice fields.

With verbs of motion {R-} may indicate vagueness of direction, the action is continued with no particular goal:

6. si məneləneləŋ witu mbanua
He's wandering around in the village.

7. se məlaalaa məwaŋker witu lalan
They are going around selling in the streets.

In combination with rai? *not* {R-} stresses that the action is never at all performed:

8. ku rai?pe? minasərasəra?la si kuda
I've never yet eaten horse meat.

9. si rai? mapa?apa?ayaŋ sapa
He never does any work at all.

Hypermorphemes containing both Completive morpheme {paka-} and {R-} indicate that the action is performed thoroughly, carefully:

10. si pakatu?utu?usanala si səsoloŋ
She's observing the ring very carefully.

11. si makarəderədey *He's standing perfectly straight.*

8.1.1.2.2.2. Hypermorphemes containing Reciprocal aspect

The function of Reciprocal aspect morpheme {-an}² is explained in section 3.1.3.0. This aspect always co-occurs with Subject voice marker {-um-}. There are six hypermorphemes which include Reciprocal aspect.

- (a) [məCə-...-an] SV; Npast; Des, Recip
[ma-...-an] SV; Npast; Dur, Recip

These two hypermorphemes, which appear to be in free variation, indicate a non-past, reciprocal action. Examples are given in section 3.1.3.

- (b) [minəCə-...-an] SV; Past; Des, Recip
[mina-...-an] SV; Past; Dur, Recip

Both these hypermorphemes indicate a reciprocal action which has occurred or a present state resulting from such an action:

1a. se mərərawakan
They are putting their arms around each other.

b. se minərawakan
*They have embraced/put their arms around each other. or
They are in each others embrace.*

(c) [məM-R-...-an] SV; Npast; Int, R, Recip

This hypermorpheme, which contains three aspect morphemes, indicates a reciprocal action which is frequently or continuously performed.

Neither of the aspect morphemes {pəM-} 'Intensive' or {R-} 'Repetitive' has been observed to occur without the other in the presence of {-an}²:

2. se məmiŋkomiŋkotan

They answer each other back and forth.

3. se kasaitə məŋupuŋupusan

They continue to love each other very much.

(d) [minəM-R-...-an] SV; Past; Int, R, Recip

This hypermorpheme indicates a reciprocal action which used to occur regularly or frequently:

4. se minəno'ono'oran kəkaanən

They regularly used to exchange food with each other.

8.1.1.2.2.3. Hypermorphemes containing Desiderative aspect

Desiderative aspect morpheme {pəCə-} co-occurs with {papa-} and {paki-} in Causative clauses. No examples have been recorded of Past tense marker {-in-} co-occurring with these aspect combinations. These hypermorphemes do not occur with stems beginning with a vowel.

(a) The <mapaCə-> set

Npast; Caus, Des

members:

[mapaCə-] SV

[papaCə-...-ən] OV

[ipapaCə-] IV

[papaC -...-an] RV

These occur in Causative clauses and indicate that the causer intends or wishes to cause the subject to perform the action:

1. si papaləlo'oŋkula notoku wəru

I want to show him (lit.: cause him to see) my new car.

2. ku mapatəta'ula nabar wia nisia

I want to tell them (lit.: cause them to know) the news.

(b) The <makicə-> set

Npast: Pet, Des

members:

□makicə-□ SV

□pakicə-...-ən□ OV

□ipakicə-□ IV

□pakicə-...-an□ RV

This set occur with verbs in Causative clauses and indicate that the causer wants or intends to ask or invite the subject to perform the action:

1. ku makitəti?irəla səsiwo minalewo?mow ya?i
I would like to have these damaged implements repaired.
2. se pakiwəwareŋəŋkumow
I want/intend to ask them to go home.

8.1.2. Non-Verbal Morphology

Most derivational morphemes are homophonous with inflectional morphemes and often such homophony is accompanied by semantic identity. Sometimes the derivational inflection on a word is homophonous with a combination of inflectional morphemes. But if the parts of the derivational form cannot each be assigned a meaning then one morpheme must be recognised. For instance, the form pəM-...-an, described in (1) below, appears to consist of morphemes *{pəM-} and *{-an}. But since neither pəM- nor -an can be linked semantically with the homophonous inflectional form nor assigned any other meaning individually, a single morpheme must be recognised; the circumfix {pəM-...-an}.

If a derivational morpheme has an identical representation to an inflectional morpheme (i.e., if the shapes given in braces are identical) then its allomorphs are not described if these are the same in all environments as those of the inflectional morpheme.

(a) {Cə-}

When {Cə-} occurs with stems beginning with a vowel it is manifested as V?, V assimilating to the vowel of the stem. Cə occurs elsewhere.

Affixed to verb stems {Cə-} derives nouns which indicate someone or something regularly associated with the action expressed by the stem.

{Cə-} + səpun *nasal mucus* + {-an} → səsəpunan *nose*
 {Cə-} + təŋaʔ *betel* + {-an} → tətəŋaʔan *betel container*

(b) {ka-}

This has a number of different functions, each of which could alternatively be regarded as a separate, homophonous, morpheme. Its major functions include the following:

(i) Attached to noun stems {ka-} derives animate nouns indicating a person who shares with another the thing expressed by the stem. Such nouns are usually followed by a Possessive phrase:

{ka-} + awu *kitchen* → kaʔawu *spouse*
 {ka-} + wanua *village* → kawanua *fellow villager, compatriot*
 {ka-} + ŋaran *name* → kəŋaran *one with the same name*
 {ka-} + səkola *school* → kasəkola *school mate*
 {ka-} + ɡio *appearance* → kaɡio → *one of the same appearance*

(ii) {ka-} occurs with descriptive stems and with a few noun stems to form characterisation nouns, which indicate a quality or characteristic:

{ka-} + leʔos *good* → kaleʔos *goodness*
 {ka-} + səla *big* → kasəla *size, area*
 {ka-} + lakər *many* → kəlakər *quantity, amount*
 {ka-} + roŋkit *thief* → kəroŋkit *thieving nature*
 {ka-} + towo *liar* → katowo *deceitfulness, dishonesty*

When {ka-} occurs with descriptive stems homophony results with *ka-very*. Thus, kaleʔos *goodness* or *very good*.

(iii) Affixed to numeral stems {ka-} forms ordinals. These are exemplified in section 5.2.1.1.

Infixes {-um-} and {-im-} occur with ordinal stems to derive adverbs meaning *for the Xth time*, where X is the meaning of the numeral stems:

{-um-}, {-im-} + karua *second* → kumarua, kimarua *for the second time*
 {-um-}, {-im-} + kətare *first* → kumətare, kimətare *for the first time*
 {-um-}, {-im-} + katəlu *third* → kumatəlu, kimatəlu *for the third time*

(c) {ma-}

Attached to animate noun stems {ma-} derives nouns which indicate a mutual relationship and which are therefore always plural. It occurs

with simple stems and with stems derived with {ka-} in the function described in (bi) above:

- {ma-} + kalo *friend* → (se) məkalo *friends*
 {ma-} + labət *fiance* → (se) məlabət *engaged couple*
 {ma-} + kaʔawu *spouse* → (se) makaʔawu *married couple*
 {ma-} + kawanua *fellow villager* → (se) makawanua *fellow villagers, people of the same village*

A homophonous form occurs with bound numeral stems, in place of sa- + ŋa-, as described in section 5.2.1.1b.

(d) {maka-}¹

This morpheme occurs with numeral stems and a few other words to derive multiplicative adverbs:

- {maka-}¹ + rua *two* → makarua *twice*
 {maka-}¹ + təlu *three* → makatəlu *three times*
 {maka-}¹ + lakər *many* → məkəlakər *many times*
 {maka-}¹ + pira *how many* → makapira *how many times*

When {maka-}¹ occurs with əsa *one* the derived form is məkasa *once*.⁸

(e) {maka-}²

maka- occurs in all environments except with stems beginning with vowel a. makaʔ- occurs with vowel initial stems in free variations with maka-. {maka-}² is accompanied by irregularity of stress placement which is described, with further examples, in section 2.1.1.2.2a.

Attached to noun stems {maka-}² derives nouns meaning *the owner of X* where X is the meaning of the stem:

- {maka-}² + ləpo *field* → makaləpo *owner of the field*
 {maka-}² + wale *house* → məkəwale *host, house owner*

(f) {ŋa-}

Glottal insertion rule does not apply when {ŋa-} occurs with stem atus *hundred* but applied elsewhere before a. {ŋa-} is used in formation of measure nouns and is discussed in section 5.2.2. with further examples:

- {ŋa-} + atus *hundred* → ŋaatus *hundreds*
 {ŋa-} + aka *stem* → ŋaʔaka *stems*

(g) {pa-}

{pa-} is attached to simple numeral stems to form stems from which subclass 2 measure nouns (fractionals) are derived by affixation of {ŋa-} (see 5.2.1.2.):

{ŋa-} + {pa-} + əpat *four* → ŋapaapat *quarters*
 {ŋa-} + {pa-} + pulu' *ten* → ŋapapulu' *tenths*

(h) {təCə-}, {tuməCə-}

Allomorphs taʔ- and tumaʔ- occur before vowels; təCə- and tuməCə- occur elsewhere.

These prefixes occur with numeral stems to derive distributive adverbs, which can be translated 'in Xes, X at a time' where X is the number expressed by the stem:

{təCə-}, {tuməCə-} + əsa *one* → taʔasa, tumaʔasa *one by one, one at a time*
 {təCə-}, {tuməCə-} + rua *two* → tərərua, tumərərua *two at a time, in twos*
 {təCə-}, {tuməCə-} + təlu *three* → tətətəlu, tumətətəlu *three by three, in threes*
 {təCə-}, {tuməCə-} + atus *hundred* → taʔatus, tumaʔatus *a hundred at a time, in groups of a hundred*

(i) {kapa-}, {kəCə-}

Glottal insertion does not occur when {kapa-} precedes a. {kəCə-} has allomorph kaʔ- before vowels and kəCə- elsewhere.

These forms occur with verbs in Nominalised Manner clauses and are discussed in section 6.1.8. with further examples. Since the constructions in which they occur are actually verbal they co-occur with tense:

{kapa-}, {kəCə-} + wunu' *kill* → kapawunu', kəwəwunu' *manner of killing*
 {kapa-}, {kəCə-} + ali *carry* → kapaali, kaʔali *manner of carrying*
 {-in-} + {kapa-}, {kəCə-} + oas *wash* → kinapaoas, kinaʔoas *former manner of washing*
 {kapa-}, {kəCə-} + parut *sow* → kəpəparut (with either prefix) *manner of sowing*

(j) {ma-R-}

When prefix ma- plus reduplication occurs with numeral stems it derives adverbs meaning 'in a group of X' where X is the meaning of the stem:

{ma-R-} + əsa *one* → maasaasa *alone, by oneself*
 {ma-R-} + rua *two* → maruarua *in a group of two, together*
 {ma-R-} + təlu *three* → matəlutəlu *in a group of three*

(k) {ka-...-an}

This morpheme occurs with some descriptive and noun stems to derive nouns indicating a place associated with the meaning of the stem:

- {ka-...-an} + oat *day* → kaoatan *world*
 {ka-...-an} + tana' *land* → kətana'an *unirrigated field*
 {ka-...-an} + reko' *bent* → kareko'an *corner, curve*
 {ka-...-an} + rəbur *fertile* → karəburan *fertile land*

With other descriptives {ka-...-an} derives abstract nouns:

- {ka-...-an} + kətər *strong* → kakətəran *strength*
 {ka-...-an} + ləney *poor* → kaləneyan *poverty*
 {ka-...-an} + siɡa' *capable* → kasiga'an *capability*
 {ka-...-an} + susa *sad* → kasusa'an *sadness*
 {ka-...-an} + wəsu *contented* → kawəsuan *contentment*

With some descriptive stems {ka-...-an} derives nouns which have the same meaning as nouns derived with {ka-} (see bil above):

- kale'os, kale'osan *goodness*
 kalewo', kalewo'an *evil, badness*
 kəwanun, kəwanunan *beauty*

Some stems take both affixes but with different meanings:

- kəlaker *quantity, amount*; kəlakeran *most, majority*
 kasobor *flourishing* (of plants); kasoboran *fertility* (of soil)

With some verb stems {ka-...-an} derives nouns:

- {ka-...-an} + selok *make a mistake* → kaselokan *error*
 {ka-...-an} + toro *go toward* → katoroan *direction*
 {ka-...-an} + pa'ar *like* → kəpa'aran *liking, desire*
 {ka-...-an} + sampət *finish* → kəsampətan *conclusion*

(l) {pəM-...-an}

This morpheme occurs with some descriptive stems, usually ones which denote a physical affliction, to derive descriptives which indicate a lesser degree of the characteristic or quality expressed by the stem:

- {pəM-...-an} + luntəŋ *deaf* → pəluntəŋan *hard of hearing*
 {pəM-...-an} + kento' *lame* → pəŋento'an *having a limp*
 {pəM-...-an} + rapa *blind* → pərapa'an *poorsighted*
 {pəM-...-an} + pa'it *bitter* → pəma'itan *slightly bitter*

(m) {maka-...-ən}, {ka-...-ən}

These forms, affixed to nouns indicating emotions or physical states, derive descriptives which indicate that something gives rise to the state

8.2. CLITICS

8.2.0. Three groups of clitics are recognised: pronouns, modals and the morpheme {nai-}. The last two function solely on the clause level while clitic pronouns function both on the clause level and on the phrase level. The pronouns and modals are usually postclitics but in some circumstances pronouns and some modals become preclitics. This is described in section 8.2.4.

A few other forms occur as preclitics but these are variants of free forms and are described elsewhere. They are sa- (see 5.2.1.2.) and ka- and ta- (see 5.5.1.1.).

8.2.1. Clitic Pronouns

Subclass 3 pronouns (see Table III, section 5.3.) occur at the clause level in Subject Relator-Axis phrases (see 5.1.1.) and at the phrase level in Possessor Relator-Axis phrases (see 5.4.3.). Subclass 3 pronouns are always manifested as in Table III except that (i) a morpheme-initial *m* is lost under the conditions stated in section 8.0c. and (ii) morpheme {-nea} loses its initial *n* following consonants but {-na} does not:

lawas	<i>hand</i>	+	{-na}	→	lawasəna	<i>his hands</i>
lawas	<i>hand</i>	+	{-nea}	→	lawasea	<i>their hands</i>
kokoŋ	<i>head</i>	+	{-na}	→	kokoŋəna	<i>his head</i>
kokoŋ	<i>head</i>	+	{-nea}	→	kokoŋea	<i>their heads</i>

Subclass 3 pronouns follow word level suffixes and precede modals.

8.2.2. Modals

8.2.2.0. Modals, while functioning on the clause level, occur as bound forms within the Predicate phrase. All modals have a range of functions of which the most important are described below.

Some modals often function stylistically or have a subtle effect on the meaning of a clause which it has not always been possible to determine. The obligatory occurrence of some modals in certain circumstances is not referred to in this section but is mentioned in the description of the relevant constructions.

Modals are arranged in five ranks, based on relative ordering and other factors. Members of ranks 1, 2 and 3 have the widest distribution, occurring in almost all clause types. These modals always occur attached to the first word within the Predicate phrase with the exception of the topic marker. Under certain circumstances members of ranks 1, 2 and 3 become preclitics in Verbal clauses (see 8.2.4.). Ranks 4 and

5 are restricted to Verbal clauses, except that {-la} can occur in negative Existential clauses, and always occur postclitic to the Head exponent of the Predicate Centre (i.e., the verb). They never become preclitics.

Two members of the same rank cannot co-occur.

8.2.2.1. Rank One Modals

Rank 1 has two members. These occur after suffixes and subclass 3 pronouns and precede all other modals.

(a) {-mow}

Initial m is lost according to the rule in section 8.0c. and w is lost when {-mow} does not occur word-finally:

limaa + {-mow} → limaamow
 limaa + {-mow} + {-mi} → limaamomi
 tinulis + {-mow} → tinulisow
 tinulis + {-mow} + {-ite} → tinulisoite

In some words m is only optionally deleted following w and y:

rimədey + {-mow} → rimədeyow ~ rimədeymow
 matelew + {-mow} → matelewow ~ matelewmow

{-mow} has a fairly wide range of functions, all involving a sense of definiteness or certainty.

In Non-verbal clauses and often in Verbal clauses, especially when co-occurring with the Past tense morpheme, {-mow} can be translated as *already*. It is, however, much more regularly used than is *already* in English and often a sentence sounds stilted or abrupt without it:

1. si kuda si witumow si karel
The horse is already at Karel's.
2. si papaku si tu'amow *My father is old.*
3. nisia si gurumow
He is a teacher. or He has become a teacher.
4. se talousow lakər *There are already too many of them.*
5. ku kimaanow *I've already eaten.*

When co-occurring with <ma->, {-mow} indicates that the action has already begun. It thus specifies that the action is one which is in progress rather than one which is regularly performed:

6. ku məkaanow *I'm already eating.*

In Verbal clauses describing action which has not yet begun, {-mow} specifies that the action is imminent or certain:

7. si kaləsogow - tiboyan
He'll fall, catch him!
8. ko edonkumow ka'awu *I'm going to take you as my wife.*
9. tarekan karənan koo tayanankumow
Now I must certainly leave you.
10. nikoomow si sumawəl wia niaku
It is you who will replace me.

In Imperative clauses {-mow} indicates a firm command:

11. edomomi rano *Bring water!*
12. mareḡow kow *Go home!*

The combination of rai' *not* and {-mow} indicates that the action no longer occurs:

13. ku rai'mow məliḡkun *I no longer smoke.*

(b) {-pe'}

Initial p is lost following a consonant other than w, y and ?:

məkaan + {-pe'} → məkaane'
rumubər + {-pe'} → rumubəre'

Elsewhere -pe' occurs:

oki' + {-pe'} → oki'pe'
maedo + {-pe'} → maedope'

{-pe'} is usually translatable as *still, yet*:

1. ku wiape' *I'm still here.*
2. nisia si kasape' oki' *He is still very little.*
3. ku məkaane' *I'm still eating.*
4. tea'pe' ma'ae *Don't go yet!*

Sometimes {-pe'} indicates that the action occurs before some other action and can be translated by *first*. In this sense {-pe'} is very often followed by {-la}:

5. si minueye'la wo sia tae mae
She asked permission first and only then did she go.
6. ku lumaape' sumawəl *I'll go and change first (before going out).*

In Imperative clauses, and sometimes elsewhere, {-pe'} acts as a softener:

7. rumubəre? *Please sit down!*
8. ku luməle?pe? *I'll just bath (if you don't mind).*
 In another context (6) could be translated: *I'll just go and change.*
 The combination of rai? not and {-pe?} means *not yet*:
9. ku rai?pe? kimaan *I haven't eaten yet.*
10. ku rai?pe? kumaan *I won't eat yet.*

8.2.2.2. Rank Two Modals

Rank 2 contains two members:

(a) {-ite}

Initial *i* is lost following stem-final *i*:

wake + {-ite} → wakite

-ite occurs elsewhere.

{-ite} indicates the exclusion of everything except that which is mentioned in the clause and is variously translated as *just, only, entirely, nothing else but*:

1. se tow witu mbale se ruaite
There are only two people in the house (lit.: The people in the house are just two.)
2. tanuite se tow walina *just like other people*
3. si ləŋkaite mapa?yaŋ wia *He only rarely works here.*
4. se tu?ana se senaŋite *Her parents were entirely pleased.*
5. si məŋaŋaŋaite *He does nothing but eat and eat.*
6. ko wəweneite
You're nothing but a woman. or You're a mere woman.

(b) {-kan}

-kən occurs when a rank 4 modal immediately follows; -kan occurs elsewhere:

maloo? + {-kan} → maloo?kan

maloo? + {-kan} + {-mi} → maloo?kəni

When {-la} follows the final *n* of {-kan} is lost (see 8.0d.):

kumaan + {-mow} + {-kan} + {-la} → kumaanokəla

{-kan} sometimes means *also*:

1. bəweaŋkan oto məŋae mana mbenəŋ
Is there also a car going to Menado?
2. si mama wo si papa se wakikan wale
Mother and father are also at home.

Elsewhere it means *anyhow, nevertheless, rather*:

3. maaromow ta'an si mapa'yaŋkan
It's raining but he's working on nevertheless.
4. kətare si so'o tumuluŋ niaku ta'an kamurian si pa'arkan
At first he didn't want to help me but finally he did anyway.
5. se pəŋənaŋənaŋəntakan
We still think about them nevertheless.

The combination of rai' and {-kan} often indicates that something expected does not occur and is usually translatable *not even, still not*:

6. witula wo sia məmi'o ta'an wo'omow pira ŋaado sia witula si
rai'kan minedola ma'an əsa
*When he got there he began to hunt wild boar, but after he'd
been there several days he still hadn't caught even one.*

8.2.2.3. Rank Three Modal

Rank 3 contains only one member, {-ke}.

Occurring in Imperative clauses {-ke} makes a request and is translated as *please*:

1. lənta'anukemi sa'ut *Please drop me a banana!*
2. weaŋkemi rua maŋku kopi *Please give us two cups of coffee.*

Elsewhere {-ke} is a quotative, translatable as *they say, it is said*:

3. nisiamoke si timuru' se tow məle'os əntabu'
It was he, they say, who taught people to make fish ponds.
4. wəweaŋke si tow əsa witu mbanua iti'i ...
There was, it is said, a person in that village...
5. se rai'ke timərimami surat
They say they haven't received the letter.

8.2.2.4. Rank Four Modals

Rank four contains three members.¹⁰

(a) {-mi}

{-mi} indicates direction toward the speaker:

1. si maalimi kayu *He is bringing the wood.*
2. kita palo'onami *He's looking at us.*
3. si ra'ipe? minareni *He hasn't come back yet.*

Occurring with verbs which specify direction away {-mi} indicates that the subject has performed the action and returned:

4. kaawi'in si minaemi waki wenaŋ
Yesterday he went to Menado (and has since returned).

(b) {-mae}

Many speakers, especially younger people, use -mee instead of -mae.

{-mae} indicates direction away from the speaker:

1. se maankatae mana ntoubulu? *They're setting off for Tomohon.*
2. ku kumi'itae nikoo *I'll follow you.*
3. si ra'ipe? minareŋae *He hasn't gone back yet.*

Occurring with verbs specifying direction toward the speaker {-mae} indicates that the subject has performed the action and gone again:

4. kaawi'in si mineymae wia
Yesterday he came here (and has since departed again).

(c) {-la}

This is the most frequent of the modals and the most difficult to interpret.

In one of its more obvious functions {-la} indicates direction away, being interchangeable with {-mae} in this function:

1. si maalila kayu *He's taking the wood away.*
2. si palo'ontala *We're looking at him.*
3. si kimaluarəla *He's gone out.*

When <-um-> set hypermorphemes replace <-im-> set hypermorphemes following certain adverbs, {-la} specifies that past action is intended where otherwise {-mow} would occur. This is illustrated in (6) and (7), section 8.1.1.2.1a.

{-la} likewise replaces {-mow} in the presence of <maka-> when this indicates past action in a Sequential clause, as illustrated in (3) and (4), section 8.1.1.2.1i.

8.2.2.5. Rank Five Modal

Rank five contains only one member, {-tae}.

{-tae} occurs in clauses referring to future action, including Imperatives, to indicate a suggestion and is translatable by *it is better/best that*:

1. ku mareŋe'tae waki waleku *I'd best return to my village first.*
2. makapənəsolatae *(You) had better keep quiet!*
3. ko isawəlotae nisia *It's best that you replace him.*

8.2.2.6. Combination of Modals

The only restrictions on the co-occurrence of modals are that members of the same rank cannot co-occur and {-pe'} does not co-occur with rank 2 modals. Sequences of two or three modals are common but only one sequence of more than this number has been recorded:

1. weanokaŋkemi kopi *Please bring us some coffee soon.*

Sometimes two modals together have a meaning which is not a combination of their individual meanings. The most important of these combined modals is {-mokaŋ}, from {-mow} and {-kaŋ}, which has a number of functions, including the following:

Occurring in Descriptive clauses {-mokaŋ} indicates *really, thoroughly, indeed*:

2. mbaya nsa'ut əmbowosokaŋ *All the bananas are well and truly ripe.*
3. əndeidəmoŋkaŋ *It's really dark.*

In constructions indicating future action {-mokaŋ} may specify *soon, presently, directly*:

4. ku kumaanoŋkaŋ *I'll eat presently.*
5. si ruməgəsoŋkaŋ *It'll soon be windy.*
6. pəpəta'ukumokəla wia se tu'aku *I'll tell my parents right away.*

It often occurs even when the time of the action is specified in a Time slot:

7. kita mareŋokaŋ waya mawəŋido *We'll all return this evening.*

{-mokaŋ} may indicate that one has no choice, no alternative, no possibility of performing an action (see also (7), section 7.2.4.):

8. wisamoŋkaŋ rubəraŋta *Where on earth will we sit (there just isn't anywhere)?*

9. nia'imokan ruberanta
We'll sit here (there are no other places left).
10. nisiamokan *He's the only one left.*
{-mokan} is often translatable by *just, on the contrary, moreover:*
11. lodey naikako'ləw - ni'itu limi'lipokan sia
The boat capsized so he just swam (there was nothing else he could do).
12. se ra'imow məgənagənəŋ əmpa'yaŋən - se məmasimasiarokan
They no longer think of work - on the contrary, they just go about enjoying themselves.

8.2.3. Clitic {nai-}

nan- occurs when followed immediately by a modal beginning with m (the m then drops according to the rule in section 8.0c.):

{nai-} + {i-} + wanŋer + {-mow} → nanoiwanŋer

na- and nan- occur in free variation before other clitics:

{nai-} + liwag + {-ən} + {-ta} → nataliwagən ~ nantaliwagən

nai- occurs elsewhere:

{nai-} + tələs + {-ən} → naitələsən

{nai-} is a preclitic with the meaning *go*. It occurs only with verbs which are not inflected for Subject voice or Past tense. A construction containing {nai-} transforms a Subject voice Conjoined clause in which the first verb is *ae go*. This is shown in the first example, in which (a) is a Conjoined clause containing two Subject voice verbs and (b) is a Basic Object voice clause:

- 1a. si tuama mae tumələs si ko'ko'
b. si ko'ko' naitələsən ni tuama
The man will go and buy the hen.
2. naironkitən si kuda *Go and steal the horse!*
3. se sərə' naipəwanŋer waki pasar
fish which are on the way to be sold in the market

Further examples of this morpheme are given in the following section.

8.2.4. Displaced Clitics

Under certain circumstances some clitics, while retaining their order relative to each other, become preclitics, occurring before the

verb stem. The morphemes undergoing this shift are the subclass 3 pronouns and modals of ranks 1, 2 and 3. These become preclitic in the presence of preclitic {nai-} (see 8.2.3.) or of any hypermorpheme containing both Instrument voice morpheme {i-} and Past tense morpheme {-in-} (see 8.1.1.1.2b.). Both {nai-} and {-in-} are manifested as na- or nan-, according to the rules given in their respective sections. Whichever of these morphemes is present is followed by the displaced clitics which occur before any prefixes which may be present:

1. {nai-} + {i-} + sero + {-ku} + {-mi} → nanḡkuiseromi ~
nakuiseromi:

kita nanḡkuiseromi kakaanən

I'll go and search for food for us (and come back).

2. {nai-} + seret + {-an}¹ + {-na} → nanaseretan:

roda nanaseretan

He'll go and get in the cart.

3. {-in-} + {i-} + {ka-} + təkəl + {-mow} → nanoikatəkəl:

se nanoikatəkəl waya ka se tinəwəlow

They all fell asleep because they were drunk.

4. {nai-} + ato + {-ən} + {-ku} + {-mow} + {-kan} →

nakumokanaton ~ nanḡkumokanaton:

si nakumokanaton mana ḡkoya

I'm going shortly to see him in Koya.

The shift from postclitic to preclitic is obligatory, under the circumstances mentioned above, for modals of the first three ranks. However, it is only optional for subclass 3 pronouns, although these only rarely remain postclitics:

5. {-in-} + {i-} + ure? + {-nea} + {-mow} + {-mi} →

nanoiure?neami ~ naneamoire?mi:

ku so?omow mareḡ mana se tu?aku wo se patuariku ka ku nanoiure?neami

I don't want to return to my parents and my brothers and sisters because they have driven me away.

N O T E S

CHAPTER TWO

1. Although [ɲ] is phonetically rather similar to [ŋ] and is in complementary distribution with it, it is assigned to /n/ for the following reasons: (i) It is replaced by [n] in slow or careful speech: /suminsim/ [sumínsim] *bird sp.*. (ii) It is always replaced by [n] following a pause: /#nsəkola/ [nsəkóla] *school*. (iii) All other consonant clusters within a morpheme involving a nasal are homorganic, suggesting the same interpretation for this cluster. (iv) Native speakers recognise and write this sound as n.

[ɲ] appears to be very similar to the nasal in Carib which Hoff (1961) writes $\hat{\eta}$ and describes as fronted dorso-velar or centro-domal. This sound in Carib also occurs before s in the cluster $\hat{\eta}s$ (all other clusters in the language are homorganic). He makes no reference to incomplete blockage of the mouth.

I wish to thank Mr. Alex Jones of Sydney University who corroborated my description of this sound.

2. Native speakers are aware of the alternative pronunciations of such words and reflect it in their spelling. For instance, /we[?]wek/ ~ /we[?]ewek/ *duck* is usually spelled either *wewek* or *weewek*.

3. Elderly Tondanese consulted could not remember ever having heard the cluster /ŋg/ morpheme-medially. Watuseke (1959, note 25) mentions that a word /angor/ (which he spells *anggor*), meaning *clothing*, was 'still used about 50 years ago by old people, according to my father.' The occurrence of this word is confirmed by Niemann (1869, p250). Presumably, if the word had not been lost, it would now be */agor/.

4. Such clusters also occurred previously following a glottal stop, e.g., /saʔbet/ *lasso* ← *saʔmbet (cf. Niemann, 1869, p402); /tuʔdək/ *prod* ← *tuʔndək.

5. Many such words were borrowed before the sound loss began and hence have resisted the change, presumably because they are also used daily in Malay (in which the nasal loss has not occurred). Names of people and places appear to have resisted the change because they are regularly written, whereas other words in the language are not.

CHAPTER THREE

1. The claim that the verbal affixation focuses a semantic relationship follows Kerr (1965, p17) rather than other writers, in whose treatment the verbal affixation either focuses attention on a nominal (e.g., Healey, 1960, p190; Prentice, 1971, p30) or marks the grammatical relationship of a nominal (e.g., Forster, 1964, p28; Shand, 1964, p59; Ward and Forster, 1967, p31). In works on Philippine languages the terms focus and voice are not usually distinguished (see the following note). Some writers use the two terms interchangeably (e.g., Dean, 1958, p84), but most use just the term focus to cover both focus and voice as used here. McKaughan (1958, p18) instead uses only the term voice, writing 'the voice marking affixes indicate the specific syntactic relations between the topic and the verb.'

2. The terms focus and voice are kept distinct, focus (of a case) being the function of the voice affixes. This distinction, although not made by other writers except Kerr (1965, p17), is held to be important here. The one voice affix may have different functions (i.e., focus different cases) in different constructions. It is thus desirable to be able to distinguish between a voice affix and its case-marking (focusing) function in a given construction.

3. This is meant in the sense that *John hit Bill* and *Bill was hit by John* have the same meaning, although differences in attitude and psychological priority may occur between the constructions. Jacobs and Rosenbaum (1971, p2) talk of different constructions which are transformationally linked having the same basic meaning but having differences in surface meaning, which is 'the extra dimension of meaning communicated by style.' Pike (1964, p7), in relation to Philippine languages, writes: '... deep structural changes reflect particular ties either between subject and predicate, or between object

and predicate, or between predicate and - say - a referent of (sic) some other element in the sentence. This tie reflects something about the attitude of the speaker (who is uttering the sentence) towards the components of the sentence. That is, he can especially direct his attention ... towards the subject, or toward the relationship of the subject to the predicate (something like active sentences do in English), or toward the relation between object and predicate (such as the subject-predicate relation of the passive in English).'

4. Kerr (1965, p18) describes verbal constructions in Cotabato Manobo in terms of transformation batteries. The use of such batteries to construct a 'syntactic analog of the traditional morphological word paradigm' was suggested by Thomas (1964).

5. The recognition of a standard function for each case marker could be regarded merely as a useful point of reference for registering variation in function. However, it is claimed here that each case marker does have a primary function, here called its 'standard' function. In support of this claim is the fact that where cognates of the voice affixes occur in languages of the Philippines they always have the functions called here standard but shift in function is, to a large extent, language-particular. Among Philippine languages with cognates of the Tondano voice affixes (which are listed in 3.1.0.10.) are Cotabato Manobo (Kerr, 1965), Maranao (McKaughan, 1958) and Ivatan (Reid, 1966). Among languages with cognates for all but the Subject voice morpheme are Mamanwa (Miller, 1964), Ilianen Manobo (Shand, 1964) and Ata (Morey, 1964). Argument in support of recognising a standard function for the case markers is also given by Kerr (1965, p35).

6. The language-particular cases suggested here are not incompatible with Fillmore's universal cases - the two could be incorporated into the one description. The universal notions would occur at a deeper semantic level and be mapped into the language-particular categories which would thus mediate between them and surface structure.

7. Goldin (1968, p18) uses the example 'The river flows' as an illustration of Objective as subject of an active sentence in Spanish.

8. A parallel can be drawn with Fillmore's Objective case which incorporates the notions of affected participant, such as *door* in *John opens the door*, and unaffected participant, such as *door* in *John sees the door*. Platt (1971, p27) suggests recognising two cases

in place of Fillmore's Objective because of this notional distinction, apparently without regard to whether or not such a distinction is of any relevance in language description.

9. A number of works on Philippine languages recognise causer as a semantic role (e.g., Kerr, 1965, p32; Reid, 1966, p46) but the idea of a causative case in Philippine languages is rejected by Grimes (1972, p147) for two reasons: (i) In constructions corresponding to *Sally had John set the table*, rather than regarding Sally as causer and John as agent, we can best treat Sally as agent of a construction in which the equivalent of *John set the table* is an embedded proposition occurring as patient. The embedded proposition has its own agent, John. (ii) If Sally is causer in the above example then problems arise in determining the case of Sally in *Mother had Sally have John set the table*. Since John is agent and mother is causer a further role would have to be set up for Sally. He says that there is no principle which allows us to limit the depth of embedding of Causatives and hence no limit on the number of causer roles which would have to be recognised as distinct.

Both of Grimes' reasons for not recognising causer are rejected here as far as Tondano is concerned. Causative clauses are here treated as Basic (non-derived) clauses because of their formal similarity to other simple clause types. Treating Causative clauses as involving embedding would require the recognition of further derived clause types, thus complicating the description, for the dubious advantage of reducing the number of cases by one. The present treatment requires the recognition of Causative clause batteries as distinct from other Basic Verbal clause batteries (see 3.1.0.12.), but abandonment of Causative case would not allow a significant reduction in the number of Verbal clause batteries to be described because account would still have to be taken of the unique set of case-marking function shifts occurring in most Causative clauses.

Also, constructions equivalent to *Mother had Sally have John set the table* are, in Tondano, formed by repeated embedding within Verbal Complements (see 5.9.4.) and cannot be formed by the embedding of Causatives as Grimes suggests (although this does occur in some Philippine languages). Grimes' second objection thus has no relevance to Tondano.

10. An Object relator is recognised for consistency, each non-Topic nominal thus being preceded by a relation marker. Fillmore (1968, p32) recognises a zero preposition for Objective in English.

11. Clause bases follow, with modification, Thomas' clause roots (1964, p2) underlying paradigms of clause constructions.
12. Elkins (1971, p252-4) gives evidence why a direct quote should not be treated as a clause level object but at the sentence level in Western Bukidon Manobo (WBM). The crucial difference between Tondano and WBM here is that in WBM a quotation can never be focused (but object can) whereas in Tondano a quotation can occur as Topic of the clause and should hence be treated as holding the focused case relationship. Where a Noun phrase can substitute for the direct quote it always holds Objective case, requiring similar case identification for Quotation.
13. The finding that an Object Complement always holds Objective case tallies with Fillmore (1968, p22 note 28). Fillmore refers to the equivalent in English as a complement sentence. The case relationship of an Object Complement is established by substituting for it a Noun phrase. This Noun phrase will always hold Objective case. An Object Complement can also be topicalised in an Object voice construction in the Standard Battery.
14. The positive term volitional is avoided here since Active clauses do not positively assert that the events described are volitional. The fact that non-volition is not specified usually does imply a deliberate action but can also specify action to which volition is not relevant.
15. Forster (1964, p44) suggests that in similar constructions in Dibabawon the actor is included within the predicate. Thus, *nig-qudan rained = it rained* contains the actor *udan rain* and means something like *rain rained*. But in Tondano the non-expressed participant cannot be such nouns as *aro rain* or *ragas wind* since these nouns belong to the inanimate noun class whereas the topic marker *si* specifies an animate class participant.
16. With some verbs a different interpretation of participant roles is possible. For instance, in the construction *ku kumuli' sa'ut I will peel the banana*, it could be argued that the object is *kuli' skin* and that *sa'ut* is the referent. This interpretation is supported by the translation *I will remove the skin from the banana*. This analysis would require recognition of the verb stem itself holding a case relationship. While there is no objection to this approach as such (cf. Prentice, 1971, p61) it could not be applied to all AV3 stems. For instance, in *ku sumawan nisia I will help him*, it is difficult to see how *sawan help*

could be regarded as object participant. Such an analysis would thus split AB3 into two separate batteries. Although the recognition of some verbs, e.g., *kuli'* to *skin*, *remove skin*, as themselves expressing object participant is felt to be valid, the present analysis is preferred because it does not require the setting up of an additional clause battery.

17. It is possible that with some verbs of this subclass R' can be focused but this was not possible with any of the verbs tested with informants.

18. Some verbs 'prefer' to mark S' with Object relator while others 'prefer' to mark it with Referent relator. That is, informants tended to consistently choose the same relator to mark S' with any particular verb stem. They would, however, agree to the alternative if asked.

19. Another approach, in the case of CB4b and CB5, would be to recognise case ambiguity such that the participants in, e.g., 'A frightens B' are subject and object in the Active battery but causer and subject in the Causative battery. It is quite possible that it is uncertainty as to the case relationship of the participants involved which has led to these constructions occurring in both Active and Causative classes. It is interesting that English equivalents to these verbs can also be employed in simple constructions (A frightens/angers/bores B) and causative constructions (A makes B afraid/angry/bored).

20. The stem *ide'* *frighten* operates in AB1c, AB3b, CB4b and CB5 without change of meaning.

21. The stems *pa'ar like* and *so'o dislike* are not inflected for tense and have no overt Subject voice affixation:

SV *se tow pa'ar timpa'*
 IV *timpa' ikəpa'ar ne tow*
 The people like palm wine.

22. Although Noun phrases with Heads expounded by Nominalised clauses and demonstratives can freely expound other slots they are avoided within the Predicate. For instance, while informants freely give constructions such as *si waŋko' iti'i si asuku* *That big one is my dog* (in which the Topic Noun phrase Head is a Nominalised Descriptive clause) they either rejected outright or were most reluctant to accept constructions with a Nominalised clause in the Predicate, e.g., * *si asuku si*

wan̄koʔ itiʔi *My dog is that big one*, preferring (or, in most cases, demanding) si asuku si asu wan̄koʔ itiʔi *My dog is that big dog*.

CHAPTER FOUR

1. For instance, a demonstrative can only follow si timəkəl if it is nominalised. Thus si timəkəl itiʔi si kaʔampitəku can only mean *That one sleeping is my friend*. Constructions which present such ambiguity are usually those which, like the clauses in examples (10) and (11), are reduced to 'bare essentials'. Such constructions are invariably disambiguated by context.

2. The term 'pseudo-intransitive' is used by Lyons (1968, p252). Fillmore (1968, p29) calls these 'deletable object' verbs.

CHAPTER FIVE

1. Although N- elsewhere functions simply as the inanimate class marker it is here regarded as a portmanteau form incorporating rm_s because of its obligatory occurrence in R-A_s as against its optional status when in non-portmanteau function.

2. This analysis of numbers is based on that given by Prentice (1971, p172) but rules have been refined to block the generation of ungrammatical constructions.

3. This requirement restricts the co-occurrence of group numbers so that only numbers indicating tens of thousands and hundreds of thousands may be generated and not, for instance, thousands of tens.

4. This requirement, which follows logically from (1), prevents such combinations as tens of hundreds of thousands.

5. The borrowed words *jam hour* and *dumingu week* do not take prefix $\eta a-$.

6. Pronouns are in fact a subclass of nouns but the treatment of Noun phrases and Pronoun phrases as separate has a number of advantages including, for instance, a greatly simplified statement of the Subject R-A phrase.

7. Certain morphophonemic changes occur when demonstratives are nominalised. The initial i of itiʔi is lost and the initial y of yaʔi is

replaced by *i* following the inanimate class marker:

si ti'? *that* (animate) *one*
nti'? *that* (inanimate) *one*
nia'? *this* (inanimate) *one*

8. This method of linking discontinuous tagmemes is taken from Wolff (1965, p69).

9. It is probable that the Object Complement Base is actually expounded by a higher level construction, i.e., a sentence, but no examples have been recorded.

10. Reid (1966, p110) recognises a Coordinate tagmeme within a Noun phrase. This approach does not allow the generation of constructions such as those in (7) and (8a) where a phrase level tagmeme is in construction with both Noun phrases. Elson and Pickett (1964, p105) recognise a series of co-ordinated Heads, each expounded by a noun. This approach does not allow a phrase level tagmeme to be in construction with only one Head, as occurs in (8b).

Becker's (1967) proposed K (co-ordinate relation) tagmeme greatly improves the capacity of tagmemic grammar for dealing with co-ordination. However, it still does not enable tagmemic grammar to formally state the grammatical difference between the ambiguous constructions in example (8). For instance, a particular reading of

$$Cs +Hn +Qu +Po +K$$

could be

$$Cs +Hn +Qu +rm_{co} +Cs +Hn +Qu +Po$$

but this formula does not specify whether *Po* is in construction with both Heads, as in (8a), or with only the last Head, as in (8b).

CHAPTER SIX

1. The requirement for transformations to preserve meaning was seen to be necessary in transformational grammar by Chomsky (1965, p132). However, some tagmemicists still continue to admit transformational rules which change meaning, e.g., Cook (1969, p72) derives a negative clause from a positive in Sierra Popoluca with the rule:

$$S +P +O \rightsquigarrow S +Neg +P +O$$

(This rule in fact does no more than add an optional tagmeme to the string).

2. No examples have been recorded of SeqCl in which R', I' or B' are in focus.
3. Not every Topic-Predicate relationship is matched by a Head-Qualifier relationship since some classes of nouns cannot be followed by a Qualifier. The classes of Head exponents which can be followed by Qu are listed for each type of Qualifying clause in section 5.4.5.
4. The Nominalised Manner clause apparently reflects a previous Manner voice Basic Verbal clause in Tondano, co-ordinate with Subject voice, Object voice and so on. A parallel occurs in Bilaan (Abrams,1970) which has a time/manner focus construction in which the verb is inflected with ka-.
5. Jacobs and Rosenbaum (1968, p197-198) note the same requirement for the equivalent verb phrase complement sentence in English.
6. IdCl corresponds to the identificational clause described for Dibabawon by Forster (1964, p38). Forster derives identificational clauses from independent clause types (IdCl is itself an independent clause type in Tondano since it can expound the Base of a Simple sentence). She describes the transformation from a verbal clause as follows (pointing out in a footnote that the same transformation applies to non-verbal clauses): 'The topic of the verbal clause becomes the comment of the identificational clause and the remainder of the verbal clause is formally nominalised by an introducing particle and becomes the topic of the identificational clause.' Thus the identificational clause meaning *John is the one who plants rice* (where *John* is predicate) derives from the verbal clause meaning *John plants rice* (where *John* is topic).

In the present treatment a Basic clause is transformed into a Nominalised clause which then expounds the IdCl Topic Head slot (this agrees with Forster's treatment). However, IdCl cannot itself be derived from any other construction.

One reason for rejecting Forster's treatment of this type as derived is that the IdCl Predicate can be negated but the Basic clause Topic from which Forster would derive it cannot contain a negative. Thus in Tondano the Basic clause:

si jon si mənənanəm kaan
 T:(cm *Djon*) P:(tm *plant*_{sv}) O:(*rice*)
Djon plants rice.

cannot be the source of the Identificational clause:

si jon si mənənanəm kaan
 P:(cm *Djon*) T:(cm *plant_{sv} rice*)
It is Djon who plants rice.

since si jon can only be negated in the latter. Thus:

ndai? si jon si mənənanəm kaan
 P:(neg cm *Djon*) T:(cm *plant_{sv} rice*)
It isn't Djon who plants rice.

7. With non-identificational (neutral) intonation (see 2.1.5.) example (8) would be a Basic Noun clause with the order Topic + Predicate meaning *The teacher isn't my friend.*

CHAPTER SEVEN

1. Elkins (1971, p220) recognises a Vocative phrase in Western Bukidnon Manobo which includes an optional attention tagmeme before the head. The vocative noun in Tondano is very frequently preceded by the exclamation *e hey* which functions to attract attention, as in (6) and (7). An alternative analysis would be to include this along with N_{voc} in a Vocative phrase as Elkins has done.

2. In a recent paper Longacre (1970) examines the internal structure of sentences and suggests that sentence types form a system in every language as do clauses.

3. It is not only in the English translation that *wo* has a different meaning from its usual meaning of *and*. When *wo* occurred in SeqS informants always translated it into Malay as *lalu* or *lantas then, and then*. Watuseke (1957a, p13) gives *wo* three meanings: *with* (i.e., the Instrument relator), *and* (i.e., the Co-ordination relator) and *then, after that*. This suggests that *wo* should be recognised as a separate morpheme in Sequential sentences; the Sequential relator.

4. In the case of (23) and (24) a pause in the flow of speech in recorded text indicates to which clause the Topic belongs, but the evidence is not always so clear-cut and often an arbitrary decision would have to be made. The Topic Noun phrase in these constructions is what Longacre (1964, p128) calls 'syntactically ambivalent' because it is in 'simultaneous dual function in two ... clauses'.

However, it seems preferable here to treat Topic as always belonging to just one of the clauses with the Topic absent from the other clause. Under this treatment these constructions are covered by the description of Sequential sentences in section 7.2.6.1. and there is no need to alter the description either of SeqS or of any clause type as would seem to be necessary if Topic were treated as simultaneously belonging to two clauses as Longacre states.

5. Thus the construction in (38a) can be transformed to:

ka?a sia si wiko? oki? mənəme? whereas the same Topic permutation cannot occur in (38b).

CHAPTER EIGHT

1. The reason for the two forms is historical. Comparison with other Minahasan languages shows that previously there were two separate phonemes, *d* and *r*. *d* merged with *r* except after *n*. Thus **dua* → *rua* but **ndua* → *ndua* (not **rua*). Thus it is possible to determine whether a word-initial *r* reflects a previous *d* or *r* by whether *N-* + *r* becomes *nd* or *∅r*.

2. There are three known exceptions. The verbs *pa?ar like* and *so?o dislike* cannot be inflected for tense (see 3.1.4.3. and note 21 to that section). They also have no overt voice or aspect affixation in Subject voice Non-volitional constructions but these two categories are predictable since voice and aspect affixation is obligatory in any other construction.

The verb *laa go* optionally occurs without affixation in Subject voice constructions. Lack of affixation signals Non-past tense, Subject voice. The verb is thus ambiguous only as to aspect, being either Punctiliar or Durative - it can alternatively occur with affixation as either *lumaa* (Punctiliar aspect) or *məlaa* (Durative aspect).

3. The word 'unambiguously' does not take account of homophony. For example, *mərawak* may contain Durative aspect (← [ma-] + *rawak*) or Intensive aspect (← [məN-] + *rawak*). However, the problem of homophony would remain under any analysis.

4. In the speech of younger Tondanese {i-} has been entirely lost in all environments except after *na-*.

5. Some stems operating in NB4 operate also in Active constructions. The occurrence of *maka-* with these stems in NB4 removes the possibility of ambiguity with the same stems affixed with *ma-* in Active constructions, e.g.:

maato to see (AV1b) and *maka'ato to get* (NV4)
magaŋaŋ to think about, consider (AV1c) and *makaŋaŋ*
to remember (NV4).

6. Adriani does not recognise any morpheme corresponding to {*pəM-*} but assigns the label 'intensive' to the nasalised verb stem. This can be preceded not only by *pə-* but also by *pə-* (the two having different meanings) and hence the nasal segment can be isolated. In Tondano, however, the segments *pə* and *M* cannot occur separately and must be regarded as parts of one morpheme.

7. Wantalangi (1957, p39) suggests that the Intensive form sometimes has a somewhat emphatic meaning. However, his analysis (which is generally quite unreliable) adds nothing to support this suggestion.

8. The word *məkasa* also has the meaning *one* in the time phrase *əndo məkasa one day*.

9. Previously these stems were all free, as they still are in closely related languages. Historically {-*na*} is the third person singular possessive pronoun but it can no longer be identified with that morpheme since it can co-occur with a possessive pronoun:

wu'anaku my fruit

and can occur in contexts in which a possessor cannot be recognised:

wu'ana wia ntinanəm ya'i the fruit on this plant.

10. All rank 4 modals can possibly be identified with independent verbs of similar meaning: {-*mi*} with *mey* ({-*um-*} + *ey come*), {-*mae*} with *mae* ({-*um-*} + *ae go*) and {-*la*} with *laa go*.

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- BaBu - *Bahasa dan Budaya*
- BTLV - *Bijdragen tot de Taal-, Land- en Volkenkunde*
- OL - *Oceanic Linguistics*
- PL - *Pacific Linguistics*

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