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A KALKATUNGU GRAMMAR

by

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*TO THE GENERATIONS OF KALKATUNGU, AND TO  
MICK AND LARDIE MOONLIGHT WHO TAUGHT ME  
THE OUTLINES OF THEIR LANGUAGE THAT I MIGHT  
RECORD IT HERE FOR FUTURE GENERATIONS.*





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## ABBREVIATIONS

A	AGENT	Intr	Intransitiviser
Abl	Ablative	Lig	Ligative
Adv	Adverb	LM	Lardie Moonlight
All	Allative	Loc	Locative
A/p	Anti-passive	MM	Mick Moonlight
C	Consonant	N	Nasal
C.A.	Common Australian	Nom	Nominative
Cau	Causative	Nom	Nominaliser
Caus	Causal	P	PATIENT
CC	Charlie Caldwell	Part	Participle
Comp	Complementiser	Perf	Perfect
Con	Concomitant	Pl	Plural
Conj	Conjunction	Poss	Possibility
Contin	Continuing	Purp	Purposive
Dat	Dative	Re	Reciprocal/reflexive
Du	Dual	Rel	Relative particle
Erg	Ergative	S	Stop
Habit	Habitual	S <sub>i</sub>	INTRANSITIVE SUBJECT
Imp	Imperative	Seq	Sequential
Imperf	Imperfect	Sing	Singular
Instr	Instrumental	Tr	Transitiviser
Int	Intensifier	V	Vowel
#	word boundary		
∅	Indicates (in glosses) a morpheme without referential content e.g. -ka. See §5.9.1.		
1	First person		
2	Second person		
3	Third person		
>	(a) acting on, e.g. 1>3 first person acting on third. (b) is realised or pronounced as		

**Note on glosses**

Where a morpheme has no apparent meaning it is glossed as zero.

A transitive verb in an independent clause is normally marked by -ji. This element appears to have no function with independent verbs. It is left unglossed and is not separated off from the stem in order to simplify the glossing. In subordinate clauses -ji is significant, being an anti-passive marker.





## CHAPTER 1

### INTRODUCTION

#### 1.1. THE PEOPLE

The Kalkatungu<sup>1</sup> (or Kalkadoons as they are generally called) inhabited an area of what is now western Queensland, an area that embraces the present day towns of Mt. Isa and Cloncurry. It is rocky, hilly country on the watershed between the rivers that flow north to the Gulf of Carpentaria, and those that flow south through the 'Channel Country' to the inland lakes of South Australia.

The first Europeans to enter Kalkatungu territory must have been members of the Burke and Wills expedition who passed through their territory in 1861. However, no contact was made. The first European settlement began in the eighteen sixties and with it the first conflict.

The first notable incident occurred in 1878 when a new settler, Malvo, and three companions were killed at the Woonamoo waterhole on Sulleman Creek. This led to the mounting of a punitive expedition of native police under Inspector Ernest Eglinton. Eglinton's main claim to fame, ironically enough, lies in the fact that he supplied our sole source for the extinct Yanda language with the vocabulary he contributed to Curr (1886:II,360-3). He also contributed a vocabulary of Pitta-Pitta (id.:364-5) and one of Yalarnnga (id.:346-9). The expedition resulted in the killing of a number of Kalkatungu. The killing of Malvo and his party was considered to be murder and some years later when the Kalkatungu had been 'tamed' and were living on cattle stations and in towns, a tribesman who was said to be one of those responsible for the killing of Malvo's party was made to wear a breastplate around his neck inscribed 'Woonamoo murderer'.

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<sup>1</sup>The name has been recorded as [kalkədun(u),] [kalkədun(u)] and [kalkudun(u)], the last version suggesting the name is really Kalkutungu and that [v] and [ə] represent the neutralisation of unstressed e and unstressed u. However, since I have heard slow versions with [v], I believe Kalkatungu is a legitimate variant along with Kalkutungu and I will use the former.

Over the next few years there were further 'incidents' and native police were stationed at Cloncurry under the command of Inspector Beresford. However, he and four of his men were killed in 1883 while on patrol and he was succeeded by F.C. Urquhart. Urquhart later became Commissioner of Police in Queensland and later again was appointed Administrator of the Northern Territory. Urquhart contributed a 'Kulkadon' vocabulary to Curr (1886:II,326-9) and some 'legends' to the Journal of the Royal Anthropological Institute. He also wrote poems of dubious value, one of which is recorded in Fysh (1950:145-7). He led a number of punitive expeditions culminating in one involving a pitched battle near the head of Prospector Creek at a site that subsequently came to be known as Battle Mountain. It seems that a comparatively large number of Kalkatungu were killed and it seems that this incident marked the end of Kalkatungu resistance. Thereafter they were no longer able to maintain their own way of life. The survivors found their country entirely occupied and they were forced to live on the fringes of European settlements, accepting handouts or providing labour and receiving some payment in kind.

The detailed history of the early contact period is not available and what accounts are available tell only one side of the story. Fysh (1950) contains a colourful account and although his treatment will irk readers sympathetic to the Aboriginal point of view, he provides a clear insight into the settlers' attitude.

Popular writers seem to have written the Kalkatungu off rather prematurely. Fysh (op.cit. 209) states that, "About the only members of the Kulkadon tribe living fifteen years ago [c.1918] were eight blacks on Yelvertoft station, one of these being Prince Micky, son of the late King and Queen, Jimmy and Nelly." And Holthouse (1974:121) claims that, "Today it is doubtful if there is one full-blooded Kulkadon left alive." However, there are scores of full-blooded Aborigines who identify themselves as Kalkatungu, on the basis of their father having been Kalkatungu.

What has almost died is the language. When Gavan Breen and I began working in Queensland in the mid-sixties there were no more than a dozen people who could speak Kalkatungu, probably no more than six who were fluent. At the time of writing only one fluent speaker remains, Lardie Moonlight.

The fluent speakers were all very old when they were first contacted (in their sixties at least) with the exception of Lardie Moonlight who was a little younger (in her fifties) and none of them was born 'in the bush' i.e. none of them was born before the time the Kalkatungu were living in or around European settlements.

Mick Moonlight, who was the principal source for the material on which my earlier description was based (Blake 1969), was the proud possessor of a brass breastplate inscribed, "Moonlight, King of the Burke", which he inherited from his father. However, I understand from Tim Howard of Boullia that he was not the "Prince Micky" referred to by Fysh in the quotation cited above. Mick 'inherited' the Burke which was Yalarnga territory not Kalkatungu country. Today his portrait hangs in the Boullia library and Boullia is in Pitta-Pitta territory. So he seems to have been a 'prophet without honour in his own country'.

The elderly speakers we consulted were all very willing to be recorded. They were all familiar with recording inasmuch as some of their friends and family owned recorders and they seemed to see some value in having their language recorded knowing that they were the last speakers.

A few Kalkatungu in their forties and fifties understand some of the language, but the younger people have no knowledge of it.

## 1.2. THE LANGUAGE

Kalkatungu is a Pama-Nyungan language classified by O'Grady, Voegelin and Voegelin as the sole member of the 'Kalkatungic group' (O'Grady et al. 1966:42, Wurm 1972:131). Yalarnga, the language spoken immediately to the south of Kalkatungu shares some lexical and morpho-syntactic material with Kalkatungu but the two languages are certainly not closely related. Details of the relationship between Kalkatungu and other Australian languages is given in chapter 7.

Kalkatungu employs suffixes for word derivation and for noun and verb inflection. Nouns and free pronouns operate in an ergative paradigm. There are also bound pronouns which may cross-reference within a clause or co-reference between clauses or between sentences. These operate in an accusative system. Syntactically the language exhibits an ergative/accusative mixture but is predominantly ergative. There is an anti-passive construction.

## 1.3. PREVIOUS WORK ON THE LANGUAGE

I first began recording Kalkatungu in 1966 during which time I was a research fellow in the Linguistics Department of Monash University supported by the Australian Institute of Aboriginal Studies. The only language data available on Kalkatungu at the time consisted of two vocabularies. One was collected by F. Urquhart and J. O'Reilly and appeared in Curr, volume II:328-9. The second was collected by W.E. Roth and appeared in Roth 1897. The latter source also contains a list of kinship terms and has a number of Kalkatungu words scattered through

the text. All in all these sources yield about a hundred and fifty words glossed fairly accurately but in a phonetically inaccurate form. Shortly before I began work, C. Osborne and Ken Hale made brief recordings of Polly Wilson.

My own writings on Kalkatungu are listed in the bibliography. The principal one (Blake 1969) consists of a brief description mostly of the morphological system. The present work is intended to supersede this earlier description. Everything in the earlier work has been retained, but the morpho-syntactic material has been greatly expanded and a number of errors, mostly in the notation of particular words, have been corrected.

#### 1.4. THE PRESENT DESCRIPTION

The present description of Kalkatungu is based on a corpus of over eighty hours of taped material plus a small amount of material taken down in notes. Most of the material was recorded by the author, but about twelve hours was recorded by Gavan Breen. The main speakers consulted were the late Mick Moonlight and Lardie Moonlight but substantial quantities of valuable information were also recorded from Polly Wilson and Charlie Caldwell. Small amounts of material were provided by Lulu Lucas, Mrs. Louie Hunter, Mrs. Noby Clay, Willy Malcolm and Topsy Harry (the last three being recorded only by Gavan Breen) and Dolly Douglas (recorded by Peter Sutton).

The corpus consists largely of words, phrases and sentences elicited as translations of English. Some material was given by way of description of the environment or of pictures. There is some dialogue, a fair amount of monologue, mostly reminiscence, a solitary traditional story given in three versions, and a good deal of non-elicited material of various kinds consisting of isolated sentences or groups of sentences usually interspersed with English.

Elicitation was carried out in English. All the informants spoke English in most situations, some of them using a fair admixture of Pidgin features.

#### 1.5. ACKNOWLEDGEMENTS

I would like to record my appreciation of the patience of the speakers I consulted, particularly Mick and Lardie Moonlight and also Polly Wilson and Charlie Caldwell. I would like to thank Gavan Breen for making several recordings for me, for discussion of various points, for listening to tapes to give a second opinion on points of difficulty, for checking the present manuscript, and for making available extensive data in numerous other Australian languages.

I would also like to thank Tasaku Tsunoda for recording some vocabulary from Mrs. Louie Hunter on Palm Island, and Peter Sutton for recording Dolly Douglas, also on Palm Island.

Lastly I would like to thank Ken Hale for sending me a copy of a recording he made of Polly Wilson plus a transcript.

My field work was supported by the Australian Institute of Aboriginal Studies (1966, 1967, 1970, 1975) and by Monash University (1976).

#### 1.6. DESCRIPTIVE FRAMEWORK

The present description recognises the following case relations or functions: INTRANSITIVE SUBJECT ( $S_1$ ), AGENT (A), PATIENT (P), RECIPIENT (R) (the traditional indirect object), DATIVE (the complement of certain intransitive verbs, beneficiary/possessor), ALLATIVE, LOCATIVE, ABLATIVE, CAUSAL and INSTRUMENTAL. My description must remain incomplete through lack of data and some areas of the grammar are shadowy and little understood. A complete description would perhaps have to recognise other relations such as TIME.

These case relations are expressed via a set of case forms that includes nominative, ergative, dative and so on (see §3.2.1.).

Each syntactically determined case relation expresses one or more semantic roles. Thus A expresses the agent of a verb like *ica* 'to bite', the perceiver of *ɲapi* 'to see', and also the agent of this same verb since it covers the sense of 'look at'. Similarly P expresses the affected of *ica* 'to bite', the effected of *kiakati* 'to make' and the neutral of *ɲapi* 'to see, look at'. In some instances a semantic role may be expressed by more than one case form. Thus the role of indirect cause or reason as in '*They fought over a woman*' may be expressed by the causal or the locative. It is probable that this role is expressed by two separate case relations, CAUSAL, the relation typically expressed by the causal form, and LOCATIVE, the relation typically expressed by the locative form.

The need to differentiate syntactically determined case relations from morphologically distinct case forms is fairly clear. In Kalkatungu, as in many Australian languages, the express two distinct case relations, A and INSTRUMENTAL. This can be established on two grounds. Firstly, an actant in A function can be cross-referenced by a bound pronoun but not one in INSTRUMENTAL function. Secondly, an actant in INSTRUMENTAL function may receive alternative expression by marking the verb with *nti* (for details see §5.3.6.), an option not available for A.

The framework must also allow for situations such as the following. (1.1) and (1.2) both have the same meaning,

(1.1) cipa-ji iti-ji laji maṛapai-tuṅu  
 this-erg man-erg hit woman-causal  
 'This man hit him because of a woman'.

(1.2) laji-mantiji maṛapai cipa-ji iti-ji  
 hit-because:of woman this-erg man-erg  
 'This man hit him because of a woman'.

There is a syntactic relationship between the two sentences inasmuch as for every sentence of the pattern exemplified in (1.1) there is a corresponding sentence like (1.2). In (1.1) the CAUSAL case form on maṛapai marks the CAUSAL case relation. In (1.2) the case relation is marked on the verb by manti. maṛapai now appears in the nominative (the case form used for S<sub>1</sub> and P) and some would describe maṛapai as still bearing the CAUSAL relation though appearing in a morphologically different case form. I believe this view is incorrect and that maṛapai in (1.2) is syntactically P. One piece of evidence for claiming this is the fact that a bound pronoun could be used in sentences like (1.2) to cross-reference the putative P. Another piece of evidence can be found in cases where the construction with -manti is used in complements like the following.

(1.3) pini panticamati-na a-kin laji-manti  
 you tell:on-past comp-you hit-because:of  
 'You 'dobbbed' so that he would hit (him) over you'.

This rather obscure sentence refers to a situation where a woman tells her husband of the advances of a would-be lover so that the husband will hit the lover. In complements of the type found in (1.3) normally only one bound pronoun appears suffixed to the complementiser a-. The choice of which actant is to be encoded as a bound pronoun is not determined by syntactic function but by the relative person of the A and P actants, first person taking precedence over second and third, and second taking precedence over third. In (1.3) it is the second person which completes successfully with the third for the bound pronoun slot. Note however that this second person is not the semantic P but our putative syntactic P. And note that the rule determining which actant is to be encoded by a bound pronoun operates in pure syntactic terms. The case form can only be determined after a comparison of a syntactically determined A and a syntactically determined P.

One way to handle this situation is to recognise different strata as in Relational Grammar. In (1.2) maṛapai would be allotted a CAUSAL case relation in an initial stratum and a DIRECT OBJECT relation (my P) in the final stratum. Similarly in (1.3) the second person actant would appear as a CAUSAL in the initial stratum and be advanced to

DIRECT OBJECT in the final stratum.

Kalkatungu under this view would be held to sanction the advancement of LOCATIVE, INSTRUMENTAL and CAUSAL to P with the change of relation registered in the verb by the suffix *-nti* ~ *-manti*. It also sanctions the advancement of the DATIVE relation to P with the addition of *-ncama* to the verb. The indirect object behaves as in English. It may appear in the allative or as a direct object. One could describe the RECIPIENT (in my terms) being advanced to P, but it is not clear in this case that one pattern is basic and the other derived.

In the present description statements referring to the case marking of P are to be taken to include those instances where P encodes an underlying LOCATIVE, INSTRUMENTAL, CAUSAL and DATIVE.

In constructions corresponding to English '*John gave Mary a book*', I shall refer to the actant corresponding to Mary as RECIPIENT. It is probably true that this actant is P just as Mary is syntactically P in the sentence just cited (witness the passive: '*Mary was given a book by John*'). However, this cannot be established for certain<sup>1</sup> and even if it could I feel it would be confusing to refer to it as P, especially since the actant corresponding to 'book' will take the same case marking. I will refer to the actant corresponding to 'book' as P.

There is another construction that presents a problem for accurate description. Compare 1.4 and 1.5,

(1.4) *maɬu-ju maa ɬuji*  
*mother-erg food cook*  
 'Mother cooks the food'

(1.5) *maɬu maa-ci ɬuji*  
*mother food-dat cook*  
 'Mother cooks food'

Both sentences can mean the same though the construction in 1.5 is usual for an indefinite object (see also §3.1). 1.4 represents the normal ergative construction, 1.5 is an example of what has come to be called the anti-passive. I believe that 1.5 is intransitive. This means that *maɬu* is  $S_1$  and *maa-ci* is DATIVE, or perhaps in Relational Grammar terms, a 'direct object *chômeur*'. However, it has proved convenient to refer simply to A being marked by the nominative and to P being marked by the dative. See the text following 4.70 for further discussion.

Where the term 'subject' is used, it refers to  $S_1$  and A. Where the term 'absolutive' occurs, it refers to  $S_1$  and P.

<sup>1</sup>One problem in English is the fact that the RECIPIENT advanced to P cannot be relativised. Most speakers cannot say \*'*I saw the girl you gave the book*'.





CHAPTER 2

PHONOLOGY

2.1. PHONEMES

Consonants:

	Bi- Labial	Apico- Alveolar	Apico- Domal (Retroflex)	Lamino- Dental	Lamino- Palatal	Dorso- Velar
Stops	p	t	ʈ	ʈ̪	c	k
Nasal	m	n	ɳ	ɳ̪	ɲ	ŋ
Laterals		l	ɭ	ɭ̪	ʎ	
Rhotics		r	ɻ			
Glides					j	w

Vowels:

	Front	Back
High	i	u
Low		a

2.2. PHONEMOTACTICS

A word consists of at least two vowels (according to the interpretation offered here - see §2.16). There may be no consonant, a single consonant or a nasal plus homorganic stop word initially. Between vowels there may be one or two consonants as specified below. In word final position n, l, r, ŋ, ʈ and ɳ may occur.

Word shapes may be summarised by the following formula,

$$((C)C) \overline{V(C)C}^{\circ} V(C)$$

1 2            3 4            5

The sequence under the bar may recur ( °).

Note that the bar could have just as easily been placed over  $C_3$ ,  $C_4$  and the following vowel. I have not found any phonological reason to place syllable boundaries. There are phonetic syllable boundaries of course, though not always easily determined. One cannot determine phonological syllable boundaries from phonetic ones. For example, initial nasal stop clusters are phonologically tautosyllabic but in speech the nasal may become phonetically the final consonant of a preceding vowel-final word: #paa#ŋɿia# 'that rock' could be pronounced [pã:ŋɿiə] with the vowel a: being nasalised and retroflexed as in a word like aŋpaji 'collect' [ãŋbai].

$C_2$  may be any consonant except the alveolars (t, n, l and r).

$C_1$  may be filled only if  $C_2$  is filled by a stop.  $C_1$  is a nasal homorganic with  $C_2$  (mp, ŋɿ, ŋɿ, ŋc, ŋk).

$C_4$  may be any consonant.

$C_3$  may be filled only if  $C_4$  is filled. If  $C_4$  is a stop,  $C_3$  may be a homorganic nasal or lateral. If  $C_4$  is a labial or velar (p, k, m, ŋ),  $C_3$  may be any apical nasal or lateral or r (n, ŋ, l, ɿ, r). If  $C_4$  is filled by any other consonant (e.g. ɿ),  $C_3$  may not be filled (but see below).

$C_5$  may be n, l, r, ŋ, ɿ or ɾ. ɾ occurs as a final consonant in only a few words. ʌ has not been recorded in word-final position. Given the low frequency of ɾ in word-final position, ʌ would have had a low frequency in this position. I think that the absence of ʌ in word-final position is likely to be accidental not systematic.

Table 1 lists the intervocalic consonant clusters covered by the generalisations given above.

Some further clusters occur intermorphemically when the rare final consonants are followed by consonant initial suffixes, but the appropriate generalisation here seems to be that except for the ergative (and a restricted allomorph of the locative viz. -ta~ -ɿa) the other consonant initial suffixes and clitics can occur freely with stem-final consonants without morphophonemic change. Thus we have clusters such as ɾp : mulpɿ + pia (on the parrot) and ɾŋ : ajaɾŋa 'only' ajar 'one + ŋa (adverbial). As my description stands it allows for a lot of intermorphemic clusters that do not occur intramorphemically. However, it is clear that the vocabulary I have collected is too small to permit accurate phonotactic statements about a language which seems to have permitted a fairly large number of possibilities.

Sharpe 1972:21 questions my decision to treat initial sequences such as mp, ŋk, etc. as sequences of phonemes rather than units even though these nasal-stop sequences occur intervocalically. However, heterorganic nasal-stop sequences occur intervocalically and if the homorganic

sequences are taken as units the question would arise whether all intervocalic homorganic sequences were units or whether some were sequences analogous to the heterorganic sequences. The distribution does not give clear evidence for taking nasal-stop sequences as units, nor does the behaviour of speakers who syllabify *kunka* 'branch' as *ku unka* and *piɾcamu* 'sun' as *pi iɾcamu*. In any case arguments based on how speakers break up words are dubious since the break-up may reflect phonetic syllables which need not accord with distributionally determined phonological syllables. Note that my description does not involve assigning intervocalic consonants either to a preceding syllable or to a following one.

	p	t	t̥	ɬ	c	k	m	n	ŋ	ɲ	ɽ	ʀ
m	+											
n	+	+				+	+					+
ŋ	+		+			+	+					+
ɲ				+								
ɽ					+							
ʀ						+						
l	+	+				+	+					+
ɭ	+		+			+	+					+
ɮ				+								
ʁ	+					+	+					+

TABLE 1  
Intervocalic Consonant Clusters

## Examples Illustrating the Phonemotactics

p	paa	'there'	kupu	'spider'	-
t	-		ati	'meat'	
t̥	t̥uu-t̥uu	'markings'	maʃu	'mother'	
ɬ	ɬina	'they'	iɬi	'ant'	-
c	cuʃu	'coolaman'	iciŋci	'nose'	-
k	kua	'river'	juku	'spear'	-
m	maa	'food'	ŋamun	'lump'	-
n	-		ini	'be'	maŋaŋaan 'doctor'
ŋ	ŋaipu	'knife'	waŋa	'mound'	mucuŋ 'chicken hawk'
ɲ	ɲiɬa-	'steal'	iŋkaŋa	'went'	-
ɲ	ɲini	'you'	apa	'gave'	mulpiŋ 'parrot'
ŋ	ŋata	'we'	aŋi	'will give'	-
l	-		kilian	'torn'	piŋciɪ 'corpse'
ɭ	ɭuŋa	'cry'	kuɭu-kuɭu	'again'	wantaɭ 'shell'
ɭ	ɭaja	'hit!'	uɭi	'die'	-
ʌ	ʌuwati	'two'	iʌa	'now'	-
r	-		juru	'man'	utiŋar 'emu'
ɽ	ɽumpi	'fear'	maɽapai	'woman'	
w	wampa	'girl'	awa	'give!'	-
j	jani	'ghost'	mpaja	'you two'	-
mp	mpuu	'rotten'	ɽumpi	'fear'	-
nt	-		wanta	'don't'	-
ŋɬ	ŋɬia	'stone'	waŋɬu	'heel'	-
ɲɬ	ɲɬii	'rouse on'	aŋɬa	'mouth'	-
ŋc	ŋca-	'sniff'	ŋuŋca	'nothing'	-
ŋk	ŋkaa	'yam'	iŋka	'go'	-
l̥t	?				
ɭɬ	waɭɬur-waɭɬur	'swag'			
ɭɬ	piɭɬi	'soft'			
ʌc	uʌci	'blood'			
np	ɭunpun	'log'	ŋp	aŋpai	'to collect'
nk	kunka	'branch'	ŋk	aŋka	'to ail'
lp	jalpi	'emu net'	ɭp	iɭpu	'melon'
lk	jalka- paɽi	'boomerang'	ɭk	paɭku	'a little'
rp	kurpai	'three'			
rk	jarka	'far'			

nm	munma	'take'	nm		
nŋ	-mingu	(see §5.4.3)	nŋ	muaŋŋu	'cousin'
lm	almi	'squeeze'	lm	aa!mi	'will put down'
lŋ	milŋa	'blowfly'	!ŋ		
rm	warma	'song'			
rŋ	!urŋun	'ashes'			

### 2.3. PHONEME FREQUENCIES

The following frequencies are based on 333 words evenly spaced through the lexicon. They are expressed as percentages to the nearest half per cent.

Frequencies of each phoneme as initial.

p	t	t̥	ɬ	c	k	
15	-	1	7	6	14.5	43.5
m	n	ŋ	ɲ	ɳ	ŋ	
14.5	-	1	3	1.3	5	25
	l	ɭ	ɮ	ʌ		
	-	0.5	1.5	*		2
	r	ɽ				
	-	1				1
				j	w	
				6	7	13
29.5	-	3.5	11.5	13.5	26.5	84.5
	i	a	u			
	5	4.5	6			15.5

\*initial ʌ has been observed only in ʌwati 'two' which did not happen to appear in the 333 words.

## Frequencies Intervocally

p	t	t̥	t̄	c	k	
9	6	6	5	6	11	43
m	n	ŋ	ɲ	ɳ	ŋ	
5	5.5	1.5	3	1	4	20
	l	l̥	l̄	ʌ		
	5	4.5	1.5	1		12
	r	ɻ				
	14	7				21
				j	w	
				3	1	4
14	30.5	19	9.5	11	16	100

## Final Frequencies

Consonants	10
i	37
a	26.5
u	26.5

The raw figures for some of the consonants are so small that it is not very revealing to convert them to percentages to the nearest half per cent. The raw figures are

r	15				
n	13	ŋ	2	ɳ	2
l	6	l̥	1		

## Overall Frequencies

p	t	ʈ	ɟ	c	k	
5.5	2.5	1.5	3.5	3	6.5	22.5
m	n	ɳ	ɲ	ɽ	ŋ	
4.5	3	1.5	2	1.5	3	15.5
	l	ɭ	ɮ	ʎ		
	1.5	1	1	0.5		4
	r	ɽ				
	3.5	1.5				5
				j	w	
				1.5	1.5	3
10	10.5	5.5	6.5	6.5	11	50
	i	a	u			
	14.5	21	14.5			50

Average length of words is 2.5 syllables (based on head words in the lexicon) or 2.75 syllables per word (based on text).

## 2.4. PRONUNCIATION

The stops, p, t, ʈ, ɟ, c and k are basically voiceless lenis stops, but voicing through co-articulation is normal. Voicing is strongest in intervocalic stops and in stops preceded by a homorganic nasal. It is not so strong initially, finally nor in clusters with the flapped r or with the laterals.

p is a bilabial stop. t is an apico-alveolar stop like English t and d. ʈ is an apico-domal or apico-post-alveolar stop, i.e. it is like English t or d but with the tongue making contact back behind the gum ridge. The apico-domal phonemes, or retroflexes as they are generally called, have an 'r' colouring to them, most noticeable in the onset. t is made either with the tongue tip protruding between the teeth (an interdental stop) or with the tongue tip behind the lower teeth. In either case the occlusion is formed by pressing the blade of the tongue

against the back of the teeth and gum ridge. This lamino-dental stop is distinguishable from *t* largely by its rather fricative character. *c* is a palatal stop similar to *t̟* except that the occlusion is formed with the blade or middle of the tongue against the hard palate. Like *t̟*, *c* is somewhat affricated. *k* is a dorso-velar stop with quite advanced allophones before *i*.

The nasals have the same points of articulation as the corresponding stops, and similarly the laterals.

*r* is a flap in slow pronunciation and in very clear, emphatic pronunciation a lingual trill. However, most typically it is a weak flap or a glide which makes it difficult to distinguish it from *r̟*, which is a glide produced with greater retroflexion and/or bunching of the tongue. In word-final position *r* may be pronounced as a stop [t̟].

Note that there is no contrast between the two series of apicals in word-initial position. I have written them all with the subscript dot to indicate retroflexion and my phonemotactic statements refer to retroflexes but not alveolars occurring in initial position. It is true that initial apical *t* often sounds retroflex as does *l̟*. *n*, however, usually sounds alveolar as does *nt*. There are retroflex tokens of *n* and *nt* like the one quoted in §2.2 (*paa ŋ̟ia* [pã:ŋ̟iɛ]), but typical tokens are alveolar.

*j* is a glide produced with the same tongue position as for *c*. *w* is a labio-velar glide. Words phonemicised with initial *i* and *u*, may have initial glides *j* and *w* respectively. This is discussed in §2.15.

*i* is a high front vowel, *u* a high back vowel with moderate lip rounding and *a* a low central vowel. All vowels have slightly less peripheral realisations in closed syllables. *a* has advanced allophones when stressed and preceded or followed by a lamino-palatal or to a lesser extent a lamino-dental. This is particularly noticeable between laminals: *ɭaja* 'hit!' [ɭəjɛ], *jani* 'white man' [jəni]. Unstressed syllables exhibit vowel reduction. In rapid speech any vowel may be pronounced [ə], but generally the vowels remain distinguishable.

## 2.5 PHONEMIC OVERLAP

Intervocalic *t* may be pronounced as a flapped rhotic [ɾ] or with some friction. Phonetically then some of these realisations fall into the range of *r* and in a phonemic transcription of particular realisations we would have to write *r* if we stuck to the phonetic data alone. Some words then would occur with two spellings e.g. *iti* or *iri* ('to return'). I have regularised all such cases and spelled them consistently with *t* since they contrast with *r* inasmuch as *t* may be realised by a flapped



rhotic but intervocalic r may not be realised as a stop -

$$\begin{aligned} t &= [t \sim d \sim \text{ʔ} \sim \text{ɹ}]/V\_V \\ r &= [\text{ʔ} \sim \text{ɹ}]/V\_V \end{aligned}$$

In word-final position r is sometimes pronounced clearly as [t]. It would be possible to say that t and r were in free variation in this position. I have preferred to say that r has a realisation [t] that overlaps with a common realisation of t.

## 2.6. VARIANT FORMS

The following morphemes have been recorded with and without the final vowel. In each case the form with the final vowel is less common.

puɹur, puɹura	'good', 'well'
-wəncir, wənciri	'a pair' (see §5.2.7.3.)
ɲucir, ɲucira	'father's sister'
aɬcir, aɬcira	'sweat'

## 2.7. CONSONANT ASSIMILATION

The ergative/instrumental case suffix is represented by -ɲku with disyllabic vowel stems and -ɹu with longer vowel stems. With consonant stems, a homorganic stop appears in the suffix. Where the stem ends in r, ɹ appears in lieu of r and t :

utiɲar	utiɲaɹu	'emu'
ɲarkun	ɲarkuntu	'wallaroo'
ɹail	ɹailtu	'firm', 'hard'
mucuɲ	mucuɲu	'chicken hawk'
wantaɹ	wantaɹu	'shell'
pirmaɲ	pirmaɲcu	'vein'

The same assimilation appears in the irregular locative allomorph that occurs with the following:

ucan	ucanta	'fire'
ulaaɲ	ulaaɲta	'high' (of sun)

-ta also occurs following the participle -ɲin and -ɹa occurs following the ligative -wa- (see §3.2.2.).

## 2.8. VOWEL ASSIMILATION

The ergative allomorph occurring with vowel stem kinship nouns and with non-singular personal pronouns displays vowel harmony with high vowels. Following a- it is -ji:

mpaja	mpajaji	'you two'
kuja	kujaji	'father'
ŋaɭi	ŋaɭiji	'we two'
pupi	pupiji	'mother's brother'
puju	pujuju	'they two'
maɕu	maɕuju	'mother'

The dative of vowel stem nominals is -a with stems in a, -i with stems in i and -u with stems in u:

macumpa	macumpaa	'kangaroo'
iɭi	iɭii	'ant'
kupu	kupuu	'spider'

Longer forms of the dative also occur with -ja following the 'dative vowel' e.g. kupuuja.

The same harmony occurs with the suffix that marks a third person possessor with a kinship noun (see §3.2.3.),

kujaapci	'his/her father'
pupiipci	'his/her mother's brother'
maɕuupci	'his/her mother'

maa 'food' and ati 'me

ely: maaci, maaciwa, maacuwa and atipci, atipciwa, atipcuwa. The forms maacuwa and atipcuwa apparently exhibit assimilation of the vowel i to the glide w producing u.

The clitic sequence for third dual acting on first singular has been recorded as -ŋiju and -ŋuju, the later exhibiting assimilation.

## 2.9. NASAL-PLUS-STOP DISSIMILATION

There is a rule that deletes the nasal from a nasal plus stop sequence in a suffix when that suffix is added to a stem already containing a nasal plus stop sequence. The rule is not a general phonetic one but is particular to certain suffixes.

The rule operates in

-ŋku	the ergative allomorph used with disyllabic vowel stems
-pcaŋu	habitual
-pcaani	continuing
-pcaaja	purposive
-ŋɭiti	verb pluraliser

It also operates in

-pin	participle
------	------------

which dissimilates to -cin.

It does not operate in

-nti (◌manti)	transitiviser etc.
-mpa	perfect
-maŋɿi	imperfect

examples:

jani + ŋku	=	janin̄ku	'white man' (+ erg)
wampa+ ŋku	=	wampaku	'girl' (+ erg)
kunka+ ŋku	=	kunkaku	'stick' (+ erg)
ɿuna + ɾcaŋu	=	ɿunin̄ɾcaŋu*	'run' (+ habitual)
iŋka + ɾcaŋu	=	iŋkacaru	'go' (+ habitual)
aŋka + ɾcaŋu	=	aŋkacaru	'ail' (+ habitual)
ɿuna + ɾcaani	=	ɿunapcaani	'run' (+ continuing)
iŋka + ɾcaani	=	iŋkacaani	'go' (+ continuing)
ɿuna + ɾcaaja	=	tunapcaaja	'run' (+ purposive)
iŋka + ɾcaaja	=	iŋkacaaja	'go' (+ purposive)
ɿuna + ɾin	=	ɿunapin	'run' (+ participle)
iŋka + ɾin	=	iŋkacin	'go' (+ participle)

\* The appearance of i rather than a in ɿunin̄ɾcaŋu is idiosyncratic. It also appears in the past tense of this verb - ɿunin̄a.

## 2.10. THE VARIANTS OF -jan (CONCOMITANT) AND -ɿati (INTRANSITIVISER)

With both these stem-forming suffixes there is an alternation as follows

-jan	following vowels
-aan	" consonants
-ɿati	" vowels
-ati	" consonants

The loss of the initial consonant of the suffix after a consonant is peculiar to these two suffixes. The appearance of the double vowel in the case of -jan ~ -aan is quite idiosyncratic.

kuŋi	'wife'	kuŋijan	'married' (of a man)
maɿɿa	'mob', 'a lot'	maɿɿajan	'having a lot'
juku	'spear'	jukujan	'having a spear'
jaŋpar	'beard'	jaŋparaan	'bearded'
arkun	'battle', 'fight'	arkunaan	'belligerent'
miɿɿi	'eyes'	miɿɿiɿati	'to be born'
piriŋa	'up', 'high up'	piriŋaɿati	'to grow up'

kupaŋuru	'old man'	kupaŋuruɹati	'to become an old man'
pupujur	'very hot'	pupujurati	'to become very hot'
ɹail	'firm'	ɹailati	'to become firm'

## 2.11. AUGMENTATION

Since Kalkatungu does not allow monosyllabic words (at least in the interpretation offered here; see §2.16.) monosyllabic stems that occur without affixation or without themselves being cliticised are augmented by repetition of the vowel. Thus while a disyllabic stem such as *ica* ('to bite') may occur as *ica* or *icaji*, *icajina*, etc., the monosyllabic stem *ɹa-* ('to hit'), when not suffixed by *-ji* or *-ji+na* etc. is augmented to *ɹaa*.

The relative particle [ŋuu ~ ŋu:] seems to be *ŋu* plus augment, since *ŋu + wa* is pronounced [ŋu(w)a] not [\*ŋuu(w)a].

In the case of the demonstrative stems *caa*, *naa* and *paa*, it is uncertain whether the second vowel is an augment or part of the stem. See the paradigms in 3.2.4.

The stem for the word for 'man' is *jur-*. It is the only example of a monosyllabic consonant stem.<sup>1</sup> Note that in the nominative it is augmented to *juru*. Compare the locative *jur-ŋu*. See §3.2.2.

## 2.12. CLITICISATION

When the sequence complementiser plus bound pronoun followed by a monosyllabic verb occurs, either the monosyllabic verb is cliticised to the complementiser plus bound pronoun or the monosyllabic verb is augmented and pronounced as a separate word. The former is typical of rapid speech, the latter of slow:

*a-ŋi ɹa* 'complementiser- me hit' is pronounced either as [áŋiɹa] or [àŋi ɹá:]. See §3.4. and §4.3. for further information.

There are some other cases of cliticisation. See example (4.68), for instance, where the clitic pronoun *kina* 'them' attracts the verb *awa* 'give' to produce [kínawa].

## 2.13. ELISION AND DELETION

Consonants between like vowels tend to be weakened or lost entirely. *caawatikaja* 'these two' regularly becomes [ca:wedigajə], [caedigajə], [ca:digajə]. Note the forms *caa-atikaja* and *ca-atikaja* in the text.

*julpaɹa-jana* 'father:son+and' > [julpaɹa:ne]  
*kaɹaɹa* 'neck' > [kaɹa:], *ɹitiri* 'centipede' > [ɹitii]  
*macumpa-jan* 'kangaroo+con' > [maɹʊmbaen], [maɹʊmba:n]

<sup>1</sup>But note also the locative of *paɹa* etc. §3.2.2.

A word-final vowel may be deleted before the initial a- of a following word.

a-ni	awa	'comp-you+give'	>	anawa
ŋtia	apa	'money+gave'	>	ŋtiaŋa
a-ŋi	awa	'comp-me+give'	>	aŋawa

A similar elision seems to occur sporadically with -u stems before the suffix -iti 'lacking':

jaŋaalu-iti > jaŋaaliti      'silent' (without talk)

juru 'man' plus -iti 'lacking' occurs as juriti or juruiti.

Since the locative of juru is jurŋu and the dative jurku, I take it that the stem is jur and the second vowel of the nominative an augment (cf. §2.11.). Apparently juru is sometimes taken to be the stem, witness juruiti and case forms such as juruŋiŋa 'towards the man'.

There is a tendency to delete final vowels following -m and sometimes following -ŋ:

itimi	'will return'	itimi ~ itim
kalkatuŋu	'Kalkatungu'	kalkatuŋu ~ kalkatuŋ

With -ti stem verbs the final i is often deleted:

iŋiti      'throw'      iŋiti ~ itir (see §2.5)

The suffixes -ŋin 'participle', -mi 'future' and -mia 'possibility' occur with the long and short forms of these stems.

The final vowel of aŋi 'will give' and ŋaŋi 'will see' is regularly deleted before a following initial ku- sequence:

aŋi	kunupa	>	aŋkunupa	'will give a necklace'
ŋaŋi	kuŋi	>	ŋaŋkuŋi	'lest he see me'

## 2.14. IDIOSYNCRATIC ALTERNATIONS

The sequence a + kin (complementiser + second person (P)) occurs in the weakened form ajin in rapid speech. The form julpajapaŋa (see §5.2.7.3. for meaning) involves reduplication of the formative paŋa in the weakened form paja.

The imperative of regular verbs is formed by adding the suffix -ja. There is an optional variant -ji with intransitive verbs in -a:

iŋka	ja	=	iŋkaja, iŋkaji	'go'
ŋu-	ja	=	ŋuja	'lie'
ini	ja	=	inija	'remain'
la-	ja	=	laja	'hit'
pati	ja	=	patija	'tell'

Note that if the variant -ji occurred with transitive verbs in a-, the resulting form would be homophonous with the present indicative.

The imperative of the minor verb classes is given in §4.1.

ṭuna- 'run' is ṭuni- before the suffix -ṛcaṇu: ṭuniṛcaṇu 'runs regularly' and before the past tense -ṇa: ṭuniṇa 'ran'.

Irregular nouns are listed in §3.2.2.

See also §4.3. for some other irregular verb forms.

## 2.15. THE PROBLEM OF THE GLIDES

Phonetically the following sequences occur:

I	II	III
iu	iju	
ia	ija	
ii	iji	i:
ai	aji	
au	awu	
aa		a:
ui	uwi	
ua	uwa	
uu	uwu	u:
#i	#ji	
#u	#wu	

However, no set of these sequences that is listed on the same row may contrast i.e. a set such as [uu], [uwu] and [u:] does not involve a contrast. For instance, the word for 'water' which I write /kuu/ may be pronounced [kuu], [kuwu] or [ku:] where [kuu] represents two distant vowels that are perceptually distinct because of a weak coda-onset or hiatus between them.

Leaving aside the problem of the long vowels, let us consider the relationship between sequences such as [ui] and [uwi] and analogous pairs (as in columns I and II above). As the phonemotactic rules stand (see §2.2.), they allow for sequences of vowels with no intervening consonant, any one intervening consonant or certain pairs of intervening consonants. Thus the rules allow for sequences such as /ui/ and /uwi/ and other sequences such as /uji/. The rules also allow for no word-initial consonant and for initial j and w, so the sequences /#i/, /#ji/ and [#u], [#wu] are permitted.

However, since sequences such as [ui] and [uwi] do not contrast, it is misleading to allow /ui/ and /uwi/ as separate possibilities. I would suggest that we introduce an equivalence rule to the effect that the sequences in I and II above are equivalent. The problem of the

glides is common to many languages including English and is to be found in most if not all Australian languages, though it is not commonly recognised as constituting a problem. Most writers on Australian languages avoid sequences of vowels and would thus write /iju/ rather than /iu/ and /iji/ rather than /ii/. Since the phonetic facts and the morphophonemic facts vary from language to language it is possible that this is an acceptable treatment in at least some instances, but I doubt if it is so widely acceptable as its common adoption suggests. In my earlier work on Kalkatungu (Blake 1969), I chose to omit all glides from sequences such as [uwi], [iji] etc. on the grounds that they were predictable. Thus I wrote /ui/, /ii/, etc. This solution received a unanimous judgement - nobody liked it; see, for instance, Alpher 1970.

In particular, Alpher considered that omitting the glides from sequences such as [iju] resulted in "a number of apparent phonological alternations". For example, I wrote the causative (called causal in the present work) of *ḡali* ('we two'), *mpaja* ('you two') and *puju* ('they two') as *ḡaliwa*, *mpajawa* and *pujua* respectively implying a morphophonemic alternation between -wa and -a. Alpher is correct of course. The decision to omit phonetically predictable glides does lead to "apparent phonological alternations". However, the solution Alpher suggests is equally misleading. He would write glides in positions where they are contrastive and where they are not.

What is involved in these competing treatments becomes clear from a comparison of the ergative and dative (called genitive in Blake 1969) of -i, -a and -u stem pronouns or kinship nouns.

	-i	-a	-u
	<i>ḡali</i> ('we two')	<i>mpaja</i> ('you two')	<i>puju</i> ('they two')
ergative	[ḡali: ~ ḡali(j)i]	[mpajai ~ mpajaji]	[pujuju]
dative	[ḡali: ~ ḡali(j)i]	[mpaja:]	[puju: ~ puju(w)u]

The ergative clearly contains the glide j. In a process model of phonology, one would take the underlying form of the ergative to be /-ji/. The dative clearly does not contain a glide, but consists of lengthening or geminating the final vowel of the stem. Leaving aside the possibility of considering the dative to be marked by vowel lengthening, a question taken up below, and considering the dative to be formed by gemination, we can see that the underlying form in a process model would be a. A rule specifying that the vowel of a suffix must match the final vowel of the stem if high, would then account for the vowel alternations of both the ergative and dative.

If we decide to omit all phonetically predictable glides from our phonemic level, then, as Alpher points out, we will need to have a morphophonemic rule deleting the *j* of the ergative from forms like /ŋa<sub>l</sub>ii/ and /mpajai/. No problem however arises with the dative. If on the other hand we decide to include glides wherever possible, we will have to insert glides in the dative, either by having allomorphs -*ji*, -*a* and -*wu* or via a rule of epenthesis that inserts *j* before *i* and *w* before *u*. The idea of setting up allomorphs -*ji*, -*a* and -*wu* is clearly contrary to the spirit of what Alpher is suggesting. But given the equivalence rule that states

(a) a sequence of high vowel plus a vowel is equivalent to a sequence of high vowel plus homorganic glide plus vowel

(b) a sequence of low vowel plus high vowel is equivalent to a sequence of low vowel plus glide plus homorganic high vowel

(c) a sequence of glide plus homorganic high vowel at the beginning of a word is equivalent to a high vowel alone

then we have no need to adopt either the 'no glide' or the 'all glide' solution. Under this rule one can freely interchange forms such as /ŋa<sub>l</sub>ii/ and /ŋa<sub>l</sub>iji/. In theory one could write one now and the other another time. To avoid confusion I will use a morphophonemic spelling. This means that the ergative of /ŋa<sub>l</sub>i/ will be /ŋa<sub>l</sub>iji/ since /*j*/ appears distinctively with '-*u* stems' (/puju-ju/), and the dative will be /ŋa<sub>l</sub>ii/. However, it must be emphasized that this is purely a convenient convention and not an argument for morphophonemically based phonemicisation.

The anti-passive will be represented as -*ji* since it appears as -*ji* following *ju*- 'to cook'.

I will consistently avoid writing initial glides that are homorganic with the first vowel; thus I will write *unu* 'faeces' not *wunu*. I choose this example since the question of an initial glide arises again in §7.4. where the relationship of this word to its putative earlier form *kuna* is dealt with.

There was some phonetic difficulty in phonemicising some sequences involving high vowels. The *j* of the sequence *uji* is often weakened or deleted so that *uji* becomes homophonous with *ui*. The word *kujiri* for 'boy' was regularly heard as [kuiri] and it is only on the basis of a very small number of ultra-slow tokens that it has been phonemicised as *kujiri*.



## 2.16. LONG VOWELS OR DOUBLE VOWELS

In the preceding section I discussed the question of whether to interpret a sequence that was phonetically [ii] or [iji] or [i:] as /iji/ or /ii/ without discussing the possibility of writing /i:/.

The number of syllables in the stem determines some of the allomorphs that occur for the ergative/instrumental and the locative. For example, -ɪu occurs as the ergative of vowel stems of three syllables or more and -ŋku as the ergative of shorter stems, while -ɪi occurs as the locative of vowel stems of three syllables or more and -pia with shorter stems.

macumpa	macumpa <u>ɪ</u> u	macumpa <u>ɪ</u> i	'kangaroo'
kupu	kupuŋku	kupupia	'spider'

Now the allomorphs -ɪu and -ɪi occur with stems containing one short vowel and one of the vowels or sequences under discussion. Thus we find

caampa	caampa <u>ɪ</u> u	caampa <u>ɪ</u> i	'kingfisher'
kaaci	kaaci <u>ɪ</u> u	kaaci <u>ɪ</u> i	'friend'
ɪitii	ɪitii <u>ɪ</u> u	ɪitii <u>ɪ</u> i	'centipede'

This suggests that the sequences that could be long vowels or double vowels are in fact treated like double vowels. If we adopt the double vowel solution then words of the above type fit in with the rule that distinguishes trisyllabic and longer stems from others. If we adopt the long vowel solution, then we would have to amend the rule that determines the ergative/instrumental and locative allomorphs to refer to stems of three syllables or more plus disyllabic stems containing one long vowel. Obviously it is simpler to adopt the double vowel solution though the fact that it is simpler does not mean that it is correct. There is no guarantee that Kalkatungu speakers prefer simpler solutions. However, in the absence of any contrary data I will adopt the double vowel solution. Phonetically the double vowel solution makes sense as the sequences in question can be pronounced as separate vowels at least if they are high. It is not normal however for [a:] to be pronounced as separate vowels.

## 2.17. STRESS

Stress is realised primarily in terms of loudness as in English.

### 2.17.1. WORD STRESS

Each word is marked by primary stress on the first syllable. I'm not sure that there are any other rules for stress within words. I

previously reported (Blake 1969:16-17) that the first syllable of every polysyllabic morpheme received stress and that sequences of more than two unstressed syllables did not occur. I now believe that there is only one phonological rule and that this rule places primary stress on the first syllable of the word. Other secondary stresses may occur but their appearance seems to be sporadic, being determined by tempo and by hesitations and the like. It would be unusual for a secondary stress to fall on a syllable other than the first syllable of a non-word-initial polysyllabic morpheme where such a morpheme occurs, thus *íáar-kùna* would be normal, and a secondary stress on the second or fourth syllable would occur only under contrastive stress. In general secondary stresses occur spaced by one or two unstressed syllables but in fluent speech they hardly occur at all and I'm inclined to think that their occurrence is determined by some natural iambic tendency towards alternating stressed and unstressed syllables rather than as the result of the application of a rule.

Where phonetically long vowels occur in non-word-initial position, they appear to take a strong secondary or even primary stress. However, this impression of stress seems to me to be entirely a side-effect of the length. Thus I would notate *jaŋaalu* ('*language*') as [jáŋa:lu].

#### 2.17.2. SENTENCE STRESS

Sentence stress appears to be organised on the same basis as it is in English. The first syllable of the final word in a phonological phrase normally receives the tonic or main stress. If there are more than two words in the phrase, the first (syllable of the first) word receives stronger stress than the other non-final words.

#### 2.18. PHRASE-FINAL INTONATION

Polar interrogative sentences are marked by rising intonation on the phrase-final word. Non-sentence-final phrases are marked by suspended intonation on the phrase-final word. Other phrases are marked by falling intonation on the phrase-final word.

## CHAPTER 3

### NOUNS AND PRONOUNS

#### 3.1. THE SYNTACTIC CASES

The basic syntactic system is an ergative one in which nominals in AGENT (A) function are marked by a suffix (-tu or -ŋku) in contradistinction to nominals in PATIENT (P) function and nominals in INTRANSITIVE SUBJECT (S<sub>1</sub>) function:

- (3.1)   maɾapai   caa   icamaji  
          woman   here   laugh  
          '*The woman laughs*'.

- (3.2)   maɾapai-tu   caa   kunka   ɬumaji-ŋa  
          woman -erg   here   stick   break -past  
          '*The woman broke the stick*'.

However, there are also bound pronouns which may cross-reference noun phrases and which, in compound and complex sentences and in discourse, may co-reference actants in a preceding clause or sentence. These bound pronouns operate in an accusative system, with one form for S<sub>1</sub> and A functions and another for P:

- (3.3)   maɾapai   caa   icamaji-ŋa-ju  
          woman   here   laugh -past-3rd dual  
          '*The two women laughed*'.

- (3.4)   maɾapai-tu   caa   kunka   ɬumaji-ŋa-ju  
          woman -erg   here   stick   break -past-dual  
          '*The two women broke the stick*'.

There is another method of marking the syntactic relations in a transitive clause and that is by putting A in the nominative and P in the dative e.g.:

- (3.5)   maɬu   maa-ci   ɬuji  
          mother   food-dat   cook  
          '*Mother is cooking (food)*'

This is used to express indulgence in an activity rather than to express what happened to the PATIENT. In the example above, P is virtually redundant (and hence bracketed in the translation). One is not expressing what is being done to any particular food, but rather that mother is 'food-cooking'. This example could be contrasted with

- (3.6)    maɬu-ju    ɬuji    wakaɾi    ŋa-ci-wa-ɬaŋu  
           mother-erg cook    fish    me-dat-lig-abl  
           'Mother is cooking the fish from my [sc. wife]'.

where the reference is to what is being done with the specific fish that was given to the speaker's wife.

This intransitive-like system of marking is common with ɬu- ('to cook') and aɾi ('to eat', 'to drink') and is commonly used where the reference is to an indefinite P or to indulgence in rather than completion of an activity. It is always used when the verb is suffixed by -miŋa (imperfect) and almost always with -ŋcaŋu (habitual). There is a small residue of instances where informants use this construction without any apparent motivation. If questioned about its use, they say that it is the same as the ergative construction and they tend to repeat the queried sentence with the ergative construction.

The intransitive-like system of marking is also found in subordinate clauses, for example in -ŋin clauses (see §4.2.10.), where A in the subordinate clause co-references an actant in the governing clause.

- (3.7)    ŋa-ɬu    ŋaŋa    maɾapai    iŋka-cin    piɬa-piɬa-a    waɬinti-ji-cin  
           I-erg    saw    woman    go-part    baby-dat    carry-a/p-part  
           'I saw the woman carrying the baby'.

Where this intransitive-like marking occurs in a subordinate clause, the verb is marked by the suffix -ji.

The use of intransitive-like case marking parallels similar mechanisms in a number of other Pama-Nyungan languages. The best known example occurs in Dyirbal and I will follow the precedent set in Dixon ed. 1976 of calling this construction the anti-passive (a/p).

Note that although there is alternation between '-ji' and non-'ji' forms of the verb in subordinate clauses, there is practically no such alternation with independent verbs. In general the -ji form of the verb represents the stem to which past tense, present tense, etc. are affixed. For instance, consider examples (3.5) and (3.6). -ji occurs both in (3.5) (anti-passive construction) and in (3.6) (ergative construction). To simplify the glossing, I have treated the base plus -ji as an unanalysed stem.

There are a few examples where this -ji is omitted for no apparent reason.

In the future tense there is alternation between a stem without -ji and one with -ji. Thus 'will hit' is ɭa-mi but ɭaji-mi in the anti-passive.

In some instances verb forms that are normally dependent are used as independent verbs. In these circumstances there is alternation i.e. the non-'ji' form is used unless there is an anti-passive construction. For example, -ɾcaaja normally marks dependent verbs in purposive/infinitive-like complement clauses, but it may be used marking an independent verb indicating simple future tense. In this case we find -ɾcaaja suffixed to the non-'ji' form e.g. ɭa-ɾcaaja 'to be going to hit', unless the anti-passive is used (see example (4.22)).

The imperative and the suffix -mia, indicating 'possibility' (see §4.2.11.) are added to the 'non-ji' form of the verb.

### 3.2. CASE PARADIGMS

#### NOUNS

##### 3.2.1. REGULAR NOUNS

	Vowel Stems			Consonant Stems
	Stems of 2 Syllables		Stems of more than two syllables	
	- nasal stop cluster	+ nasal stop cluster		
Nominative	kupu ( <i>spider</i> )	kunka ( <i>stick</i> )	macumpa ( <i>kangaroo</i> )	kalpin ( <i>young man</i> )
Ergative/ Instr	kupu-ŋku	kunka-ku	macumpa-ɭu	kalpin-tu
Locative I	kupu-pia	kunka-pia	macumpa-ɭi	kalpin-pia
Dative	kupu-u(ja)	kunka-a(ja)	macumpa-a(ja)	kalpin-ku
Locative II	-ŋii			
Causal	As for ergative plus -ŋu			
Ablative	" "	locative I "	-ŋu	
Allative I	" "	dative "	-ɾa	
Allative II	" "	locative II"	-ɾa	
Prolocative	-ɾun (see §3.5.10 for allomorphs)			

The locative -pia and the dative -ku are used with all consonant stems. The ergative also has allomorphs -ɭu with r, ŋ and ɭ stems and -cu with palatal stems as listed in §2.7.

Kinship vowel stem nouns decline in the same way as non-singular pronouns (see §3.2.3.). Thus *pupi* 'mother's brother' declines like *naḷi* 'we two', *kuḷa* 'father' like *mpaja* 'you two' and *maḷu* 'mother' like *puju* 'they two'.

Note that there is no morphologically distinct class of adjectives. The equivalents of English adjectives are mostly nouns or, in some cases, verbs.

### 3.2.2. IRREGULAR NOUNS

Nominative	Ergative	Locative	Dative	English
maa	maaḷu	maaḷa	maaci ~ maacuwa	'food'
ati	atiḅu	atiḅa	atiḅci ~ atiḅcuwa	'meat'
mpuu	mpuuku	mpuuka	mpuḷuu(ja)	'rotten'
ḅḷuu	ḅḷuuku	ḅḷuuka	ḅḷuḷuu(ja)	'hole'
ḅkaa	ḅkaaku	ḅkaaka	ḅkaḷaa(ja)	'yam'
muu	muḷu	muḷu	muḷuu	'camp'
kuu	kuuḅku	kuuḅka	kuuja	'water'
ucan	ucantu	ucanta ~ ucanpia	ucanku	'fire'
ulaaḅ	ulaaḅḷu	ulaaḅḷa		'high(of sun)'
-ḅin	-ḅintu	-ḅinta	-ḅinku	participle
-wa	-waḷu	-waḷa	-waku	ligative*
-ja	-jaḷu	-jaḷa	-jaku	ligative*
juru	itiji	jurḅu	jurku	'man'
ḷuku	ḷukuju	ḷukuḅu	ḷukuu	'dog'
jaun	jauntu	jaunḅu	jaunku	'big'
maḷḷa	maḷḷaji	maḷḷapia	maḷḷaa	'mob'
paḷḷa	paḷḷaḅku	paḷḷiija	paḷḷaa(ja)	'fork(of tree)'
kaḅḷa	kaḅḷaa	kaḅḷiija	kaḅḷaa(ja)	'head'
juḅḷu	juḅḷaa	juḅḷiija	juḅḷuu(ja)	'arms'
ḅuḷḷu	ḅuḷḷuḅku	ḅuḷḷiija	ḅuḷḷuu(ja)	'thighs'
aḅḷa	aḅḷaku	aḅḷiija	aḅḷaa(ja)	'mouth, lips'

\* See §3.5.4., §3.5.11., §5.8.

(cont.)

Nominative	Ergative	Locative	Dative	English
mun <u>ɔ</u> kunku <u>ɔ</u>	mun <u>ɔ</u> uku kunku <u>ɔ</u> u <u>ɔ</u>	mun <u>ɔ</u> ii <u>ɔ</u> kunku <u>ɔ</u> u <u>ɔ</u>	mun <u>ɔ</u> uu(ja) kunku <u>ɔ</u> uu	'face' 'child'

The locative allomorph -u appears sporadically with regular nouns in place of -i or -pia e.g. ɔuaru or ɔuarɔ 'snake', maɔpaɔ or maɔpaɔi 'woman'.

The locative II is -u for all nouns. The prolocative is of infrequent occurrence, and the range of variants not known (see §3.5.10). The 'compound cases', causal, ablative, allative I and allative II are all formed regularly by the addition of -u or ɔ, except that the ablative of muu is muɔ.

### 3.2.3. PERSONAL PRONOUNS

Singular	'I'	'you'	'he, she, it'
Nom	<u>ɔ</u> ai	nini	<u>ɔ</u> aa, pakai (see notes below)
Erg	<u>ɔ</u> ai <u>ɔ</u>	ninti	<u>ɔ</u> iji (see notes below)
Loc I	<u>ɔ</u> ai <u>u</u>	nini <u>u</u>	<u>ɔ</u> ai <u>u</u>
Dat	<u>ɔ</u> aci	nunku	<u>ɔ</u> aa, pakaja
Causal	<u>ɔ</u> aci <u>wa</u>	nunku <u>wa</u>	<u>ɔ</u> ai <u>wa</u>
Abl	<u>ɔ</u> ai <u>uwa</u> <u>u</u>	nini <u>uwa</u> <u>u</u>	<u>ɔ</u> ai <u>uwa</u> <u>u</u>
All I	<u>ɔ</u> aci <u>ɔ</u>	nunku <u>ɔ</u>	<u>ɔ</u> ai <u>ɔ</u>
All II	<u>ɔ</u> ai <u>ɔ</u> <u>ɔ</u>	nini <u>ɔ</u> <u>ɔ</u>	<u>ɔ</u> ai <u>ɔ</u> <u>ɔ</u>
Dual	'we two'	'you two'	'they two'
Nom	<u>ɔ</u> ai	mpaja	puju
Erg	<u>ɔ</u> ai <u>iji</u>	mpajaji	puju <u>ɔ</u>
Loc I	<u>ɔ</u> ai <u>u</u>	mpajau	puju <u>u</u>
Dat	<u>ɔ</u> ai	mpajaa	pujuu
Causal	<u>ɔ</u> ai <u>wa</u>	mpajawa	puju <u>wa</u>
Abl	<u>ɔ</u> ai <u>uwa</u> <u>u</u>	mpajau <u>wa</u> <u>u</u>	puju <u>uwa</u> <u>u</u>
All I	<u>ɔ</u> ai <u>ɔ</u>	mpajaa <u>ɔ</u>	puju <u>u</u> <u>ɔ</u>
All II	<u>ɔ</u> ai <u>ɔ</u> <u>ɔ</u>	mpajaa <u>ɔ</u> <u>ɔ</u>	puju <u>u</u> <u>ɔ</u> <u>ɔ</u>

(cont.)

Plural	'we'	'you'	'they'
Nom	ηata	ηutu	ʔina
Erg	ηataji	ηutuju	ʔinaji
Loc I	ηatanu	ηutuηu	ʔinaηu
Dat	ηataa	ηutu	ʔinaa
Causal	ηatawa	ηutuwa	ʔinawa
Abl	ηatanuwaηu	ηutuηuwaηu	ʔinaηuwaηu
All I	ηataaηa	ηutuηa	ʔinaaηa
All II	ηatanjiina	ηutuηjiina	ʔinaηjiina

There are no occurrences of -ηii with pronouns and -ηun occurs with some but not all pronouns, but presumably it can occur with all of them without morphophonemic change.

#### NOTES ON THIRD PERSON FORMS

Some difficulty was experienced in establishing the third person singular paradigm. The third person singular is normally expressed by zero, at least when it is in  $S_1$ , A or P function. The stem a<sub>1</sub>a- appears to function as a means of facilitating the expression of third person singular in an oblique function. It does not occur very often and the forms were obtained by paradigmatic elicitation. ʔiji consistently refers to third person singular in A function. I take it to belong to the same paradigm as a<sub>1</sub>a-, but since there is a formal discrepancy and since the appearance of ʔiji is redundant from the point of view of information, I have been rather cautious about including it here. Given that third person singular is normally expressed by zero when it is in  $S_1$ , A or P function, one would expect the overt form ʔiji to be used only for emphasis. It is true that ʔiji is used for emphasis (see example (3.10) below) but in some instances I can find no apparent motivation for its use. In some cases it is used alongside a noun in A function (examples (3.8) and (3.9)).

- (3.8) ʔi-ji kuu-ηku ηai ηan<sub>1</sub>amaji ʔiinta  
 3s-erg rain-erg me find in:the:middle  
 'The rain caught me in the open'.

- (3.9) ʔi-ji iti-ji-ka caa ʔuku ηa-ci ʔaji ηampu-pia  
 3s-erg man-erg-Ø here dog me-dat hit behind-loc  
 'The man hit my dog from behind'.

In the following example, I assume ʔi-ji is introduced so that the third person can be stressed.



- (3.10)  $\eta a-tu$   $patu-ma$   $pua$  ,  $\eta ai$   $u\eta ku!u$   $patu-ma$   $li-ji-ka$   
 I-erg call-pres o:sis me young:sib call-pres 3s-erg- $\emptyset$   
 'I call her pua; she calls me  $u\eta ku!u$ '.  
 (pua 'older sister',  $u\eta ku!u$  'younger sibling')

The form  $\underline{laa}$  given as the nominative for this paradigm is particularly dubious. There is a particle  $\underline{laa}$  which corresponds to the 'meaningless' English 'now' or 'well' as in 'Now we can do one of two things.' However, there are a number of instances where  $\underline{laa}$  seems to parallel  $\underline{liji}$ ,  $\underline{laa}$  appearing with nouns in  $S_1$  (but not P) function, whereas  $\underline{liji}$  appears with nouns in A function. Given that the third person is normally expressed by zero in  $S_1$  function, a third person nominative is in a sense 'meaningless' and there is obviously room for confusion with the meaningless  $\underline{laa}$  used for 'well' or 'now'. Eliciting contrastive examples does not help, since the informants use the demonstratives in situations where there is a contrast (or they use nouns). Discussion with the informants does not lead anywhere. It is difficult to obtain direct explanations of non-lexical forms. The following is a typical example.

- (3.11)  $\underline{laa}$   $pi\eta api\eta a$   $wan\eta i-wan\eta i$   $\eta ai-\eta u$   
 he child follow-follow me-loc  
 'The kid keeps following me'.

A further complication lies in the fact that  $\underline{pakai}$  also appears to function as a third singular form. Its form invites comparison with  $\underline{paawatikaja}$  'those two' and  $\underline{paamiakaja}$  'those', however, there is no evidence that it has any deictic function. It has been recorded only in the nominative and the dative ( $\underline{pakaja}$ ).

$-anci$  (also  $-i\eta ci$  and  $-u\eta ci$ )

$-anci$  indicates a third person (singular, dual or plural) possessor, e.g.,  $\underline{kuja-anci}$  means 'his or her father'. The third person possessor need not be overtly expressed.  $-anci$  follows any derivational suffixes and precedes any case suffix. It seems to occur only with kin terms.

- (3.12)  $wampa$   $paa$   $\eta a\eta a\eta i$   $ma\eta u-u\eta ci-\eta u$   
 girl there sit mother-locative  
 'The girl is sitting over there with her mother'.

$\underline{mun\eta i}$

The free form  $\underline{mun\eta i}$  expresses the third person possessor especially in those instances where there is no overt nominal expressing the 'possessed', i.e. it is usually used like the English possessive pronoun.

- (3.13)  $kuntu$   $caa$   $nun-ku-ka$  ,  $\underline{mun\eta i}$   $caa$   $\eta a\eta lakia$   
 not here you-dat- $\emptyset$  his here back  
 'It's not yours. It belongs to him over here at the back'.

*munji* may be inflected. *munjiwaja* 'in his' and *munjiwajaŋu* 'from his' has been recorded, but I have not succeeded in eliciting any other cases (see example (3.76)).

### 3.2.4. DEMONSTRATIVES

There are three demonstrative roots: *caa*, *naa*, and *paa*. *caa* refers to something relatively close to the speaker, *paa* to something relatively far from the speaker, and *naa* to something that is neither. There is also a root *cipa-* which seems to be an alternative to *caa* in the non-singular. In the singular there is an apparent merger of a *caa* paradigm and a *cipa* paradigm.

The dual and plural forms are clearly demonstrative pronouns (corresponding to the demonstrative pronouns and demonstrative adjectives of English). The singular forms seem to be partly pronominal/adjectival and partly adverbial. It is difficult to know how to analyse some of the forms e.g. *caa* seems to be ambivalent between pronominal/adjectival and adverbial. Some of the irregularities in the singular are probably related to this. *caŋkaaji* and *caŋkajaŋu*, for example, function in an adverbial-like way.

There are some instances of the demonstrative root and the number marker being separately inflected in the non-singular e.g. *paŋu watikajaŋu* 'from those two'.

There are a few instances of the regular ergative allomorph *-ju* and the regular causal *-juŋu* being used instead of *-ju* and *-juŋu*.

The forms *caawatikaja* and the alternative *cipawatikaja* are usually reduced to *caatikaja* and *cipaatikaja*.

See also §6.1. and §5.10.2.

Singular	'this'	'this'	'that'
Nom	<i>caa</i>	<i>naa</i>	<i>paa</i>
Erg	<i>cipaji</i>	<i>naji</i>	<i>paji</i>
Loc I	<i>caŋkaaji</i>	<i>naŋu</i>	<i>paŋiŋi</i>
Dat	<i>cipaa</i>	<i>nau</i>	<i>pau</i>
Causal	<i>cipaja</i>	<i>naja</i>	<i>paja</i>
Abl	<i>caŋkajaŋu</i>	<i>naŋuwaŋu</i>	<i>paŋu</i>
All I	<i>cipaana</i>	<i>naana</i>	<i>paana</i>
All II	<i>cipaŋiina</i>	<i>naŋiina</i>	<i>paŋiina</i>

(cont.)

Dual	'these two'	'those two'	'those two'
Nom	caawatikaja	ḡaawatikaja	paawatikaja
Erg	caawatikajaḷu	(As for caa)	(As for caa)
Loc I	caawatikajaḡu		
Dat	caawatikajaa		
Causal	caawatikajaḷuḡu		
Abl	caawatikajaḡuwaḡu		
All I	caawatikajaḡaḡa		
All II	caawatikajaḡiḡa		
Plural	'these'	'these'	'those'
Nom	caamiakaja	ḡaamiakaja	paamiakaja
Erg	caamiakajaḷu	(As for caa)	(As for caa)
Loc I	caamiakajaḡu		
Dat	caamiakajaa		
Causal	caamiakajaḷuḡu		
Abl	caamiakajaḡuwaḡu		
All I	caamiakajaḡaḡa		
All II	caamiakajaḡiḡa		

### 3.2.5. INTERROGATIVE PRONOUNS

	'who?'	'what?'
Nom	ḡani	ḡaka
Erg	ḡantu	ḡakaḷu
Loc I	ḡaniḡu	ḡakaḷi
Dat	ḡanku	ḡakaa
Causal	ḡantuḡu	ḡakaḷuḡu
Abl	ḡaniḡuwaḡu	ḡakaḷiḡu
All I	ḡankuḡa	ḡakaḡaḡa
All II	ḡaniḡiḡa	ḡakaḡiḡa

### 3.3. CROSS-REFERENCING BOUND PRONOUNS

Kalkatungu employs bound pronouns in independent clauses and in some types of dependent clause. The bound pronouns in independent clauses may simply encode an actant, or co-reference an actant from an earlier

clause or they may occur cross-referencing nouns or free pronouns in the same clause. I will refer to the bound pronouns in independent clauses as cross-referencing bound pronouns.

In general there is a free choice at the information level between using a bound pronoun, a free pronoun, or a bound pronoun in cross-reference with a free one. In elicited sentences particularly in ones given slowly or haltingly, free pronouns are used almost exclusively, but in more fluent, spontaneous material, bound pronouns, with or without free ones, are common. If a pronoun is in focus (see §6.7.) or represents a topic that is contrasted with another topic (*'I did so-and-so, but he did something else'*), then the free forms are used. As might be expected, the bound forms are not able to be stressed.

With the verb suffixes -miga (imperfect) and -mpa (perfect), the bound forms for S<sub>1</sub> and A are apparently obligatory and the free forms optional.

A full set of S<sub>1</sub>/A forms is available. It is clear from the use of -miga and -mpa with first person singular that the first person singular is represented by zero as is the third person singular, the latter fact is to be expected of course. With the P forms, only -ŋi and -kin occur with any frequency. -la and -ta have been elicited paradigmatically only and no bound P forms have been found for the second and third person dual and plural, at least not in the indicative. When I made up independent indicative sentences with bound forms that represent P in the imperative and in subordinate clauses, they were rejected.

	S <sub>1</sub> /A	P
Sing.1	-∅	-ŋi
2	-n	-kin
3	-∅	
Dual 1	-l	-la
2	-ŋu	
3	-(mu)ju	
Pl. 1	-r	-ta
2	-ŋur	
3	-na	

-muju (third dual S<sub>1</sub> or A) is used in the present tense and -ju elsewhere.

The free forms mpaja 'you two', puju 'they two', ŋutu 'you mob' and ŋina 'they' may be cliticised to the verb, but given the freedom of word order that is found their appearance in this position is not of the same significance say of nous and vous appearing before the verb to mark P in

French (i.e. in the special clitic position).

#### EXAMPLES

- (3.14)  $\eta$ aka-a     $\eta$ ini    a $\eta$ i-li-mi $\eta$ a-n?    a $\eta$ i-li-mi $\eta$ a- $\emptyset$     maa-ci  
*what-dat you eat-a/p-imperf-you eat-a/p-imperf-I food-dat*  
*'What are you eating?'                      'I'm eating tucker'.*

With -mi $\eta$ a 'imperfect' A is marked by the nominative and P by the dative, i.e. the anti-passive construction is used.

- (3.15)    ica- $\eta$ in-kin     $\eta$ ini    mu $\eta$ un-tu     $\eta$ ini     $\eta$ arkumaji-mia  
*bite-part-you you bullant-erg you vomit-possibility*  
*'If you get bitten by a bullant, you might vomit'.*

Note that with three-place verbs the P bound forms represent the RECIPIENT not the PATIENT:

- (3.16)     $\eta$ ini    pa- $\eta$ i    a $\eta$ a-kin  
*you that-erg gave-you*  
*'That man gave it to you (not 'you to it')*

With the imperative of intransitive verbs the following forms are used to mark S<sub>1</sub> (-ja or -ji represents the imperative cf. §2.14).

singular	i $\eta$ ka- $\eta$ i-n	'Go!'
dual	i $\eta$ ka- $\eta$ a-mpi	'You two go!'
plural	i $\eta$ ka- $\eta$ a-tu	'You mob go!'

With the imperative of transitive verbs the following forms represent A. They are also used to mark S<sub>1</sub> with a few two-place intransitive verbs such as  $\eta$ kuma 'to look for'.

singular	ja- $\eta$ a- $\emptyset$	'Hit (him, her it)!'
dual	ja- $\eta$ a    ku-mpi	'You two hit (him, her, it)!'
plural	ja- $\eta$ a    ku-tu	'You mob hit (him, her, it)!'

Where A is non-singular, P is represented normally by a noun or free pronoun. Where A is singular (and in this case there is no bound pronoun form), then P is represented by a bound pronoun suffixed to ku-:

1s	ku- $\eta$ i	
1du	ku-la	
3du	ku-ju	
1pl	ku-ta	
3pl	kina	
ja- $\eta$ a kina		'You (singular) hit them!'

Note that there may be only one occurrence of ku in an imperative clause. If A is non-singular the A pronoun is suffixed to ku. If A is singular, then any overt P pronoun will be suffixed to ku.

With the verb *api* 'to give', the imperative of which is *awa*, the P series of bound pronouns refers to the RECIPIENT. In the first person I have recorded forms with *ku* and without it:

<i>awaŋi</i> or <i>awa kuŋi</i>	'You (singular) give it to me!'
<i>awala</i> or <i>awa kula</i>	'You (singular) give it to us two!'
<i>awata</i> or <i>awa kuta</i>	'You (singular) give it to us mob!'

The forms *kuju* and *kina* are generally confusing since they may refer to  $S_1/A$  in some constructions and to P (or RECIPIENT) in others. For example, they mark  $S_1$  with intransitive verbs when the imperfect marker *-maŋi* is used:

(3.17) *kulawaŋara*    *ŋataŋati-maŋi-kuju*  
*twin*            *sit-imperfect-dual*  
 'The twins are sitting together'.

(3.18) *juru*    *la-ti-maŋi-kuju*  
*man*        *hit-re-imperf-dual*  
 'The two men are hitting one another'.

*kina* appears in the favourite construction (§3.4., §4.3.) marking P and both *kuju* and *kina* appear in the 'lest' construction (§3.4., §4.4.) marking both  $S_1/A$  and P. Some light is thrown on the mysterious behaviour of *kuju* and *kina* in chapter 7 (see §7.5.)

It seems in general only one bound pronoun may occur in an independent clause. With *-miŋa* and *-mpa* the  $S_1/A$  series is obligatory. In other instances, the bound pronouns are used too sparingly for there to be enough examples to make it clear how it is determined which actant is to appear as a bound pronoun. The only instances of two bound pronouns in one independent clause are the sequences *-ŋiju* or *ŋuju* for 3du > 1s and *ŋina* for 3pl > 1s.

### 3.4. CO-REFERENCING BOUND PRONOUNS

Co-referencing bound pronouns occur in two types of subordinate clause, the "favourite" construction and the "lest" construction.

The favourite construction, which is described in detail in §4.3., earns its name from its high functional load and high frequency of occurrence. It consists of a verb, a particle *a-* (glossed as comp(lementiser)) to which co-referencing bound pronouns can be suffixed and noun phrases.

A typical example would be,

(3.19) *iŋka-ŋa*    *ŋata*    *ŋarkun-ku*    *a-ti*    *la-ji*  
*go-past*    *we*        *wall-dat*    *comp-we*    *kill-a/p*  
 'We went to kill wallaroos'.

The following pronouns are used in this construction. In the table, the complementiser *a-* is shown as well as the pronouns themselves. The first form on the table appears to be suppletive. Basically it is probably *la*, the second *a* being supplied by the augmentation rule (§2.11.). In rapid speech it may be prefixed to the verb as *la*.

	S <sub>1</sub> /A	P
Sing 1	<i>laa</i>	<i>aŋi</i>
2	<i>ani</i>	<i>akin</i>
3	<i>ai</i>	-
Dual 1	<i>a<sub>l</sub>i</i>	<i>akila</i>
2	<i>a<sub>ŋ</sub>u</i>	<i>akumpaja</i>
3	<i>ailu</i>	( <i>akuju</i> )
Plur 1	<i>ati</i>	<i>akita</i>
2	<i>a<sub>ŋ</sub>ur</i>	<i>akutu</i>
3	<i>aina</i>	( <i>akina</i> )

Normally only one bound pronoun occurs in the favourite construction. In the transitive instance the choice between representing A or P by a bound pronoun is determined by a person hierarchy rule (see §4.3.). Bound pronouns for both A and P in the one clause occur only if one actant is first singular and the other third non-singular. In these cases the forms are

1s > 3 pl	<i>laa kina</i>	1s > 3 du	<i>laa kuju</i>
3 pl > 1s	<i>aŋina</i>	3 du > 1s	?

The forms *akuju* and *akina* are bracketed on the table. They are the expected forms but are constrained from appearing by certain syntactic rules (see §4.3.). *kina* does occur, as noted above, but not directly suffixed to *a-*.

The "lest" construction is described in detail in §4.4. It occurs quite often as a complement to the verb '*to fear*' and it will be convenient to illustrate it in this function. In one variant, it appears with a bound pronoun for S<sub>1</sub> suffixed to an auxiliary particle *u<sub>ŋ</sub>u*, or in another variant it appears with a bound pronoun for A suffixed to *ku<sub>ŋ</sub>u* (*ku* + *u<sub>ŋ</sub>u*, *u<sub>ŋ</sub>u* has an apparent free alternant *u<sub>ŋ</sub>a* in the non-singular).

(3.20) *rumpi ŋai ŋuji u<sub>ŋ</sub>u-n*  
*fear I fall lest-you*  
*'I'm afraid you'll fall'.*

(3.21) *rumpi ŋutu ŋuma ku<sub>ŋ</sub>u-r*  
*fear you break lest-we*  
*'You're afraid we might break it'.*

Note that these bound pronouns do not always have a co-referencing function (see examples above). In another variant of the construction, pronouns representing P are suffixed to ku (without any auxiliary particle uḡu).

- (3.22) rumpi ḡai iuku-juḡu ica ku-ḡi  
*fear I dog-caus bite me*  
*'I'm afraid the dog'll bite me'.*

The choice between these variant constructions is determined by a person hierarchy rule and details are given in §4.4. Another variant occurs where the S<sub>1</sub> of the lest clause is third person or where both A and P are third person. In this case an auxiliary particle ana is used and the forms kuju and kina are used to mark a dual or plural S<sub>1</sub> or A:

- rumpi ḡai ana ica 'I'm afraid he might bite'.  
 " " ana kuju ica ' " " they two might bite'.  
 " " and kina ica ' " " they (pl.) might bite'.

In the following table, the forms are shown with (k)unu and ku as well,

	S <sub>1</sub> /A	P
Sing 1	(k)uḡu	kuḡi
	(k)uḡun	kukin
	3	
Dual 1	(k)uḡul	kula
	(k)uḡaḡu	kumpaja
	kuju*	kuju*
Pl 1	(k)uḡur	kuta
	(k)uḡaḡur	kutu
	kina*	kina*

\* The explanation of how kuju and kina are to be interpreted appears in §4.4.

There is not a full set of forms for instances where both A and P are to appear as pronouns. There is however, kuḡajin for 1s > 2s (first singular acting on second singular, kuḡajinpaja (1s > 2du) and kuḡajinitu (1s > 2pl). Other "combinations" recorded are

kunu kina	1s > 3pl
kunun kina	2s > 3pl
kunun kuju	2s > 3du
kuḡiju	3du > 1s
kuḡina	3pl > 1s



Some remarks by Lardie Moonlight ('*There's some more twists but I forget*') lead me to believe that there may have been other portmanteau forms like kuṇajin. See also the table in §4.4.

The form kuṇajin is interesting. I refer to it as a portmanteau as I cannot find good synchronic, language-internal reasons for analysing it. However, the clitic for second person singular in P function is -kin and this sometimes appears in a weakened form -jin in combination with the complementiser a-. Thus a-kin may be pronounced [agin] or [ajin]. If we identify the -jin of kuṇajin with the -jin variant of -kin, we are left with -ṇa- as first person singular. -ṇa is the first person singular subject clitic in most of the western Pama-Nyungan languages. It seems that Kalkatungu contains the easternmost example of this form.

### 3.5. SENTENCES ILLUSTRATING CASE MARKING

#### 3.5.1. NOMINATIVE - ∅

The nominative marks citation forms, S<sub>1</sub> and P. It also marks A in the anti-passive construction.

(3.23) kupu   caa   ṭuna  
           spider here run  
           '*The spider runs*'.

(3.24) maṛapai-ṭu kupu   ṭaji-ṇa  
           woman-erg spider kill-past  
           '*The woman killed the spider*'.

(3.25) maṛapai   ucan-ku   iṇciji-maṇṭi  
           woman   wood-dat chop-imperfect  
           '*The woman is chopping wood*'.

Note that reflexive and reciprocal are marked on the verb by a suffix -ti and verbs so marked are intransitive.

(3.26) aṇi-ti-muju   ca-atikaja  
           give-re-they:2 this-dual  
           '*These two gave one another things*'.

The verb aṇi 'to give' occurs with two constructions. In one, P is in the nominative and the RECIPIENT in the allative. In the other both P and R are in the nominative. As noted in §1.6. R in the latter construction is probably the syntactic P. It is this underlying R that is cross-referenced, not the 'gift'.

(3.27a) maṛapai-ṭu ati   aṇa   ṇun-kuṇa?  
           woman-erg meat gave you-allative  
           '*Did the woman give meat to you?*'

- (3.27b) maṛapai-tu nini ati apa-kin?  
 woman-erg you meat gave-you  
 'Did the woman give you meat?'

### 3.5.2. ERGATIVE/INSTRUMENTAL -tu, -ŋku

The ergative/instrumental (abbreviated erg(ative) for convenience) marks nominals in A function or INSTRUMENTAL function.

- (3.28) wampajana nini ŋa-tu laji-ŋa  
 accidentally you I-erg hit-past  
 'I hit you accidentally'.
- (3.29) juku cipa-ji maiji kuŋtali-tu  
 spear this-erg grease fat-erg  
 'This (man) greased the spear with fat'.
- (3.30) ŋaimi-ja kutu walkaaŋtu tuku-ju  
 chase-imp you lizard dog-erg  
 'Chase the lizard with a dog, you mob!'
- (3.31) kuŋtuŋu caaka kupaŋuru-ka canpara-tu iŋka  
 lame here old man-ø stick-erg go  
 'The old man is lame and walks with a stick'.
- (3.32) makaŋi ŋai piŋci-ti-ŋa kankaŋi-tu  
 hand I cut-re-past knife-erg  
 'I cut my hand with a knife'.
- (3.33) ŋtia-ku ŋai ŋuji-ŋa  
 stone-erg I fall-past  
 'I fell over a stone'.
- (3.34) wanta la-ja kina ŋaur-ka; li-ja kutu; ŋurkuŋa  
 don't hit-imp them child-ø leave-imp you merely  
 'Don't hit the kids. Leave them alone. Just  
 jaŋaalu-tu pati-ja  
 language-erg talk-imp  
 rouse on them'.

Regarding the last example, note also pati-ŋcaŋu kalkatuŋu-tu 'to call something/someone by such-and-such a word in Kalkatungu'.

### 3.5.3. LOCATIVE I -ti, -pia

The locative I (referred to simply as the locative for convenience) marks nominals in LOCATIVE function. In most cases it expresses location in place or time, but the complements of certain verbs regularly appear marked by the locative (e.g. arkunaanati 'to be wild at') and there are a number of metaphorical and idiomatic usages.

- (3.35) millititi-na nai paimara-ti  
*be born-past I Cloncurry-loc*  
*'I was born in Cloncurry'.*
- (3.36) warampaṭa nini-ṅu caa ṅuu pikaja  
*axe you-loc here lie near*  
*'The axe is lying near you'.*
- (3.37) nai iṅka-mi taun-kuga ṅa-ci maṭu-ṅu  
*I go-fut town-all me-dat mother-loc*  
*'I'm going into town with my mother'.*
- (3.38) nai iti-mi tuṅṅal-ṅara-ti  
*I return-fut month-other-loc*  
*'I'll come back in a month'.*
- (3.39) ati caa ṅa-tu ana jalkapaṛi-ti  
*meat here I-erg gave boomerang-loc*  
*'I gave him meat in exchange for a boomerang'.*
- (3.40) maa-ta ṅa-tu uṭimaji  
*food-loc I-erg consume*  
*'I used it [sc. money] up on food'.*
- (3.41) wamiḷa-ti nini ṅa-tu aṭiji  
*sleep-loc you I-erg produce*  
*'I dreamed of you'.*
- (3.42) ṅaaka jaun-pia-ka wacaḷii-ṅu  
*this big-loc-Ø first-adj*  
*'This one is the biggest' (lit. 'first in big(ness)')*
- (3.43) ḷa-ti-muju caa maṛapai-ti  
*hit-re-they 2 here woman-loc*  
*'They are fighting over a woman'.*

To express 'A fought with B over C', the causal is used to express C and the locative to express B.

- (3.44) nini ḷa-ti-ṅa piḷa-piḷa-ṅara-ti  
*you hit-re-past child-other-loc*  
*'You have been fighting with another kid'.*
- (3.45) ṅaka-ti caa arkunaan-ati  
*what-loc here angry-intransitiviser*  
*'What is he wild at?'*

A locative phrase refers to a whole predication ('outer locatives') or to actants in  $S_1$  or P function ('inner locatives'). Where the location of an actant in the A function is to be expressed, a participial phrase qualifying the ergative must be used, the locative referring to the  $S_1$  of the embedded phrase.

- (3.46) wakaṛi ṅa-ṭu paa ṅaṅa ku-ṅka ini-ṅin-tu  
*fish I-erg there saw water-loc be:present-part-erg*  
 'I saw a fish when I was at the water'.

Note also that aṛa ('enter'), juu ('climb on'), waṅṅi ('follow') all take locative complements. ṅantii ('bark at') takes the locative or dative.

Examples of the locative suffixed following the participle -ṅin are given in §4.2.10. and examples of the locative suffixed to tense-marked verbs are given in §5.11.

#### 3.5.4. DATIVE -ku etc.

The dative case form expresses the DATIVE case relation and it also expresses P in the anti-passive construction.

The form of the dative is -ku with consonant stems, and with vowel stems a vowel that is the same as the final vowel of the stem. However, in slow speech the dative of vowel stems consists of a syllable-ja as well:

	fluent	slow, deliberate
<i>spider</i>	kupu-u	kupu-u-ja
<i>kangaroo</i>	macumpa-a	macumpa-a-ja
<i>breast</i>	mimi-i	mimi-i-ja

-ja is always used if another case suffix is to be added (see §3.5.11.), except in the formation of the allative.

As mentioned in §3.1., Kalkatungu has an anti-passive construction which is used with transitive verbs to indicate indulgence in an activity rather than a specific act of impingement on a PATIENT. In this construction, A is marked by the nominative and P by the dative. It is always used with the imperfect aspect marker -miṅa and almost always with the habitual aspect marker -ṅcaṅu. It is often used with the verbs ṭu- (to cook) and aṛi (to eat, to drink) in sentences corresponding to English, 'She is cooking' or 'She is cooking the tea' where the PATIENT is not the focus and is of low information value.

- (3.47) ṅa-ci maṭu maa-ci ṭuji  
*me-dat mother food-dat cook*  
 'My mother is cooking (food)'.

The verb jakapi when used in the anti-passive construction corresponds to English 'to understand' or 'to be able to hear' but when used in the normal ergative construction corresponds to English 'hear, listen to'. The verb ṅaṅṅama when used in the anti-passive construction corresponds to English 'look for' and in the ergative construction to 'find'.

In all recorded instances where a noun in A function is qualified by a clause the verb of which is marked by -maṅṅi 'imperfect', the anti-

passive is used. If A is dual or plural, *-maŋti* is followed by *-kuju* or *kina* respectively.

- (3.48) *caa-atikaja* *ŋaŋaŋati-maŋti-kuju* *tuar-ku* *laji-ŋa*  
*this-dual* *sit-imperf-they:2* *snake-dat* *kill-past*  
*'These two sitting together killed the snake'.*

This use of the anti-passive is in accordance with the general principle of using it in a transitive clause where A co-references an absolutive actant in another clause of the same sentence (see §3.1.). Here *ca-atikaja* is the  $S_1$  of *ŋaŋaŋati* and the A of *la-*.

The dative marks the complement of verbs like *waira ŋu-* 'to like' (literally: *heart lie*) and *uŋara* 'to wait for'. It is also used to mark the complement of *punpati* 'to speak' when reference is made to the name of the language used:

- (3.49) *ŋata* *punpati* *kalkatuŋu-u*  
*we* *speak* *Kalkatungu-dat*  
*'We speak Kalkatungu'.*

The complement of *punpati* may alternatively be expressed in the locative II form: *kalkatuŋu-ŋii*.

The dative is used to mark the optional complement of a great range of intransitive verbs, usually with the role of purpose:

- (3.50) *wampa* *inŋa* *upun-ku*  
*girl* *go* *frog-dat*  
*'The girl is going for frogs'.*

With transitive verbs there do not seem to be any dative complements (in addition to P). All datives occurring with transitive verbs are adnominal. The following sentence can be translated as 'I cooked your fish' or 'I cooked the fish for you'.

- (3.51) *ŋa-tu* *tuji-ŋa* *nun-ku* *wakaŋi*  
*I-erg* *cook-past* *you-dat* *fish*  
*'I cooked your fish'.*

The dative in a sentence like (3.51) can be separated from its head which is part of a general tendency in Kalkatungu in which modifiers are nominalised and separated from their heads:

- (3.52) *wakaŋi* *ŋa-tu* *nun-ku* *tuji-ŋa*  
*fish* *I-erg* *you-dat* *cook-past*  
*'I cooked your fish'.*

As far as I can see the dative case marks only one case relation, viz. DATIVE and covers the roles of possessor, beneficiary and purpose.

The dative complement of an intransitive verb and a dative adnominal to P can be expressed as P by adding the derivational suffix *-pɔama* to the stem. See examples in §5.3.7.

- (3.53) *cuʔu caa ɲun-ku*  
*coolaman here you-dat*  
*'The coolaman is yours'.*
- (3.54) *ɲai muʔu-u ɲa-u*  
*I camp-dat this-dat*  
*'I belong to this camp'.*
- (3.55) *ɲata ajar-ku jaŋaalu-u*  
*we one-dat language-dat*  
*'We belong to one language'.*

### 3.5.5. LOCATIVE II *-ɲii*

The suffix *-ɲii* is rather restricted in semantic scope. It covers the sense of 'on' as in '*fall on one's back*', '*lie on one's side*' and it is suffixed to the names of languages in expressions for '*to speak language so-and-so*'. The dative is an alternative for this latter sense.

- (3.56) *iŋka-cin ɲai muŋtɔ-ɲii ɲuji-ɲa*  
*go-part I face-loc:II fall-past*  
*'Walking along I fell on my face'.*
- (3.57) *ɲata punpati jalanna-ɲii*  
*we speak Yalarnnga-loc:II*  
*'We speak Yalarnnga'.*

Note also *unuŋkaʔi-ɲii* '*downwind*'.

*-ɲii* occurs too infrequently for me to be able to discuss the case relation it expresses. It may express the LOCATIVE, the difference between *-ɲii* and *-ʔi/-pia* being semantic.

## 3.5.6. CAUSAL -tunu, -nunu

The causal case covers the sense of indirect cause or reason and most instances could be translated into English by 'because'. It expresses the CAUSAL relation.

- (3.58) piciri-tunu nai milii wakini  
pituri-caus I eyes spin  
'I'm high on pituri'.
- (3.59) nai rumpi naa iti-jinu miliiwakini-pin-tunu  
I fear here man-causalintoxicated-part-causal  
'I'm afraid of drunken men'.
- (3.60) ati-nununu nai maanti-na wakaŕi-tunu aŕi-li-pin  
meat-caus I sate-past fish-caus eat-a/p-part  
'I'm full because I ate the fish'.

## 3.5.7. ABLATIVE -tunu, pianu

The ablative covers the sense of "motion away from". It expresses the ABLATIVE relation.

- (3.61) malŕa jani waŕara kacapi-tunu  
many white emerge plane-ablative  
'A lot of white people got off the plane'.
- (3.62) kunka caa maniji cipa-ji tuku-ju caa-miakaja-nuwanu  
stick here get this-erg dog-erg this-plur-abl  
'The dog got the stick from these (people)'.

The ablative phrase refers to actants in S<sub>1</sub> or P function in all attested examples.

## 3.5.8. ALLATIVE I -kuna, etc.

The allative I form, which can conveniently be referred to simply as the allative, covers the RECIPIENT function and the ALLATIVE function. The RECIPIENT can be distinguished on the grounds that it may be alternatively expressed by the nominative (i.e. as P). The RECIPIENT occurs with api 'to give', nunanunaapi 'to teach', punpati 'to talk to' and lumanni 'to explain'. punpati seems to be unusual in being intransitive but taking a RECIPIENT.

- (3.63) inka-na nai taun-kuna  
go-past I town-allative  
'I went to town'.
- (3.64a) maŕapai punpati-na na-cina  
woman speak-past me-all  
'A woman spoke to me'.

- (3.64b) maɾapai punpati-na-ŋi  
 woman speak-past-me  
 'A woman spoke to me'.
- (3.65) lumantiji jaŋaa!u ŋa-ciŋa cipa-ji  
 explain language me-all this-erg  
 'He explains the language to me'.
- (3.66) puɾur caa-ka kanimaiŋcir-ka ŋutu-uŋa ini  
 good here policemen-Ø you-all be  
 'The policeman is good to you people'.
- (3.67) ŋɪia ŋa-!u i!iti-na !uku-uŋa  
 stone I-erg throw-past dog-all  
 'I threw a stone at the dog'.  
 (If the target is hit, one uses iŋci- 'to hit with a missile' with the missile in ergative and target in nominative).

### 3.5.9. ALLATIVE II -ŋiŋa

The allative II case covers the sense of "towards".

- (3.68) iŋka-na-ju !aun-ŋiŋa  
 go-past-they:2 town-allative:II  
 'They went towards town'.
- (3.69) waɾaci-ŋiŋa caaka ŋaŋiji cipa-a maa-ci ma!imputi  
 fruit-all:II here look this-dat food-dat drool  
 'He looked towards the fruit licking his lips for the food'.

It may be possible to regard the allative II case form as marking the ALLATIVE function or case relation. The difference between the forms may be analogous to the difference between the English prepositions 'to' and 'towards' which I would describe as marking the ALLATIVE relation ('to' has other functions as well) but differing in semantic features.

### 3.5.10. PROLOCATIVE -ŋun

This suffix has a rather restricted function and has been found only in examples of the following type.

- (3.70) cipa-ji ŋai jakapiji ma!u-iŋci-ŋun  
 this-erg me think mother-his-for  
 'He took me for his mother'.
- (3.71) ŋa!i-ŋa!i ŋa-!u maŋiji macumpa-ŋun  
 wallaby I-erg take roo-for  
 'I mistook the wallaby for a kangaroo'.



- (3.72)  $\eta a-tu$   $\eta ini$   $jakapiji$   $uli-pin-an$   
 I-erg you think die-part-for  
 'I thought you had died'.

- $\eta un$  has not been observed with any other consonant stems except for  $kaipin$  'man' and  $mulpin$  'parrot' where we find the form  $kalpinin$  and  $mulpinin$ .

I do not have sufficient data to be able to discuss the case relation involved.

### 3.5.11. DOUBLE CASE MARKING

Since case marking is applied to all words in the noun phrase and since the dative has adnominal usages, it is possible that case marking will need to be added to the constituents of a noun phrase where one is already marked by the dative (e.g.  $\eta a-ci$   $ma\dot{t}u$  *me-dat mother* i.e. 'my mother'). The case marking is not added directly to the dative; a ligative suffix is used. With vowel stems the ligative is  $-ja$ , the form which is sometimes added to the dative even when there is no further affixation (see §3.5.4.). With noun consonant stems and with singular pronouns the ligative is  $-wa$ . See also §5.2.3., §5.8.

- (3.73)  $\eta ai$   $\eta a-ci-wa-tu$   $kunkuju-!u$   $\eta a$   $kuu$   
 me me-dat-lig-erg daughter-erg gave water  
 'My daughter gave me water'.

- (3.74)  $kupa\eta uru-u-ja-tu$   $\eta ai$   $icaji$   
 old:man-dat-lig-erg me bite  
 'The old man's (dog) bit me'.

- (3.75)  $\eta a-tu$   $caa$   $\eta a\eta a$   $ma\etaapai$   $ma\dot{t}u-i\eta ci-i-ja-ku$   $t\dot{u}-ji-pin$   
 I-erg here saw woman mother-her-dat-lig-dat cook-a/p-part  
 $maa-ci$   
 food-dat  
 'I saw the woman cooking food for her mother'.

- (3.76)  $mu\eta\eta i-wa-ta\eta u$   $ca\eta kaja\eta u$   $i\eta ka$   $maa-ci$   $ati-\eta ci$   
 his-lig-abl this:abl go food-dat meat-dat  
 'He is going from his own (camp) for food and meat'.

In some cases where the syntax of the clause requires that a dative marked phrase be further marked, this further marking is simply omitted. This is fairly common with the ergative case but not with other cases,

- (3.77)  $\eta a-ci$   $ma\dot{t}u-ju$   $t\dot{u}ku$   $!aji-\eta a$   
 me-dat mo-erg dog hit-past  
 'My mother hit the dog'.

However, in some of these instances the modifier (if pronominal) and the head of the phrase are pronounced as one word with the primary stress on the first syllable of the dative constituent. In general it seems to be possible to pronounce the sequence 'pronoun + dative noun' as one word.

There are some instances of the ligative *-wa* being used when no further suffix follows,

- (3.78)    *maɾapai-tu*    *ŋa-ci-wa*    *tuku*    *laji-ŋa*  
           *woman-erg*    *me-dat-lig*    *dog*    *hit-past*  
           '*The woman hit my dog*'.

This is not quite the same as the optional use of *-ja* with vowel stems when no further suffix follows. *-ja* seems to be characteristic of careful speech, but the use of *-wa* seems sporadic.

## CHAPTER 4

### THE VERB

#### 4.1. VERB CLASSES

Almost all verbs are strictly transitive or strictly intransitive. However, the verb *manii* 'to burn' occurs as an intransitive - *ucan manii* 'The wood burns', and a transitive - *maṛapaiṭu ucan manii* 'The woman burns the wood'. Similarly, *aṭii* occurs as an intransitive - *kuu aṭii* 'Rain falls', and as a transitive - *kacapi-ṭu kuṭu aṭii* 'The hawk lays an egg'.

Verbs fall into two open classes, one intransitive and the other transitive, plus a few irregular closed classes.

##### (a) intransitive (open class)

<i>iṅka</i>	'go'	<i>uḷi</i>	'die'	<i>ṅu-</i>	'lie down'
<i>ṭuna</i>	'run'	<i>ṛumpi</i>	'fear'	<i>juu</i>	'go up'
<i>waṭara</i>	'emerge'	<i>ini</i>	'remain'	<i>cuṅpa</i>	'jump'
<i>aṛa</i>	'enter'	<i>iti</i>	'go back'		

##### (b) transitive (open class)

<i>ica</i>	'bite'	<i>ṛukupi</i>	'swallow'
<i>ḷa-</i>	'hit, kill'	<i>iṅci</i>	'chop'
<i>ṅka-</i>	'send'	<i>piṅci</i>	'scratch'
<i>unpi</i>	'take'	<i>itinti</i>	'bring/send back'

##### (c) transitive (-ti stems)

<i>iṭiti</i>	'throw'	<i>kiakati</i>	'make'
<i>waṭukati</i>	'dig'	<i>pati</i>	'tell'

These verbs are irregular in that the final *-i* may be omitted before the suffixes *-ṅin*, *-mi* and *-mia* and also when no suffix follows. Thus we find *iṭir* or *iṭiti*, *itirṅin* or *iṭitṅin*, etc. The anti-passive *-ji* is suffixed to the stem with *i* : *iṭitiji*, *iṭitijṅin*, etc.

These verbs are irregular also in that the imperative forms are *iḷita*, *waḷukata*, *kiakata*, etc. See also §4.3.

The verb *pati* is irregular in that it has an imperative *pata* but it does not normally drop its final vowel since this would result in a monosyllabic stem.

(d) transitive and intransitive (-ma stems)

<i>ḷuma</i>	'break'
<i>ḷulurma</i>	'catch hold of, grab'
<i>ḷkuma</i>	'look for, find'
<i>ḷaḷuma</i>	'look for'
<i>icama</i>	'laugh (at)'

This seems to be a closed class though there are more members than are listed here (see glossary). They are irregular only in that the imperative stem and the 'non-*ji*' form used in the favourite construction ends in *-mi*. Thus *ḷumi*, *ḷulurmi*, etc. in the favourite construction when no anti-passive is used (see §4.3.) and *ḷumija*, *ḷulurmija*, etc. in the imperative.

*ḷuma* is transitive (the intransitive verb 'to break' is *ḷuti*, *-ti* probably representing the reflexive/reciprocal marker) as is *ḷulurma*. *ḷaḷuma* is transitive but frequently occurs in the anti-passive when it corresponds to 'look for' as opposed to 'find'. *ḷkuma* is intransitive but it is almost always used with an overt complement in the dative. *icama* is intransitive and may take a locative complement. All verbs of this class show alternation between forms with *-ji* and forms without *-ji* irrespective of transitivity. Thus one finds forms like *ḷkumaji* where one would find *icaji* 'to bite' and *ḷkuma* where one would find *ica*. A verb like *ḷkuma* takes the distinctly transitive forms in the imperative for non-singular actor e.g. *ḷkumija kutu* 'You mob look for it'.

(e) transitive (-wa stems)

present	past	future	imperative	
<i>aḷi</i>	<i>aḷa, aḷa</i>	<i>aḷi</i>	<i>awa</i>	'give'
<i>ḷaḷi</i>	<i>ḷaḷa</i>	<i>ḷaḷi</i>	<i>ḷuwa</i>	'see, look'

(f) transitive (-la stems)

These verbs take an imperative in *-la* and an anti-passive in *-ḷi*. *aḷi* 'eat' and *ḷkaa* 'spear, stab' also have some other irregular inflections as shown below. See also section (g). For each entry in the following table the anti-passive forms are given immediately below the basic forms.

present	past	future	imperative	
aṛi, aṛima	aṛimu	aṛimi	ala (sic)	'eat'
aṛili	aṛiliṅa	aṛilimi		
ciaji	clajina	ciami	ciila	'take out, take off'
ciaḷi	ciaḷina	ciaḷmi(sic)		
ḡkaaja, ḡkaama	ḡkaajina	ḡkaami	ḡkaaila	'spear'
ḡkaaḷi	ḡkaaḷina	ḡkaaḷimi		
maiḷi	maijina	mairi	maila	'rub'
maiḷi	maiḷina	maiḷmi(sic)		
ḡṭiaji	ḡṭiina	ḡṭiami	ḡṭiila	'sharpen'
ḡṭiaaḷi	ḡṭiaaḷina	ḡṭiaaḷimi		

The verb aaḷ 'to leave', 'to put down' has been recorded in the forms aaḷ (present), aaḷmi (future) and aaḷa (imperative).

The imperfect aspect marker -miṅa takes the same anti-passive stem forms as -mi. Thus we find aṛilimiṅa but maiḷmiṅa.

The forms for 'eat' presented considerable phonetic difficulty. Earlier I notated them as ai and aiḷi. Gavan Breen pointed out to me that I had misheard aṛili as aiḷi, transferring the retroflexion to the following l. On checking the non-anti-passive form, we found it was aṛi, the r being difficult to pick up on the few tokens available. By analogy with the other verbs in this group the anti-passive of aṛi should be aṛiḷi. Perhaps it is, but we find it difficult to hear ḷ as well as r. Perhaps \*ḷ has dissimilated to l.

See also §4.3. for the '-ji' and 'non-ji' forms of these verbs used in the favourite construction.

(g) (miscellaneous)

The verbs ḷi- ('to relinquish'), juu ('to go up'), aṛi ('to eat') and ḡkaa ('to spear') take an optional present tense -ma, and aṛi occurs with a past tense -mu. It is worth noting that the present tense and past tense in Yalarnga are -ma and -mu respectively. There is a verb form patuma ('to tell, to call someone something') for which no paradigm can be constructed (cf. pati 'to tell'). There is also a defective verb mitaa, the imperative being the only form that occurs. It means 'give!'. Perhaps it could be considered a particle rather than a verb.

The verb ḷua- ('to leave behind, to relinquish') occurs with past tense ḷuajina, future ḷuajimi. The imperative is supplied by ḷija the imperative of ḷi-.

ḷu- ('cook, burn') has a non anti-passive stem ḷi-.

## 4.2. TENSE AND ASPECT SUFFIXES

## 4.2.1. - ∅ PRESENT

The present tense form covers much the same semantic range as the present tense in English i.e. it covers the sense of action in the present and habitual action. In some cases it is used to refer to past time.

- (4.1)    tuar    caa    n̄tuu-ka    aṛa  
           snake here hole-loc enter  
           '*The snake is going into the hole*'.
- (4.2)    t̄itiri    caa    waṛara    maḷḷa    kuu    aṭii-pin-ta  
           centipede here emerge many water fall-participle-loc  
           '*Centipedes appear in great numbers when it rains*'.

## 4.2.2. -ṇa PAST

The past tense form corresponds to the past tense of English, except that the present tense form may also refer to the past.

- (4.3)    ṇkara-a    ṇkumaji-ṇa-na  
           yam-dat seek-past-they  
           '*They looked for yams*'.

## 4.2.3. -mi FUTURE

The future tense covers the range of English '*will/shall*' and '*to be going to*'. The simple future is formed by adding -mi to the 'non-ji' form of the verb. When the anti-passive construction is used, the suffix -mi is added to the '-ji' form of the verb and the reference is to continuing present activity into the future:

- (4.4)    kuntu    ṇa-t̄u    ḷa-mi  
           not    I-erg    hit-fut  
           '*I'm not going to hit him*'.
- (4.5)    kuntu    ṇai    ḷa-ji-mi    kuḷukuḷu  
           not    I    hit-a:p-fut    again  
           '*I'm not going to hit him again*'.
- (4.6)    kuntu    ṇai    ṇkara-a    ṇaṇṭama-ji-mi  
           not    I    yam-dat    look:for-a:p-fut  
           '*I'm not going to keep on looking for yams*'.

In Blake 1969:53 it is reported that "object markers" suffixed to ku occur with -mi. However, this seems to be true only if some apprehension is being expressed e.g. '*I'm frightened they'll hit me*'. In other words the use of an object marker suffixed to -ku with the future is a variant of the 'lest' construction described in §4.4. In particular see example (4.107).

## 4.2.4. -mĩna IMPERFECT I

The S<sub>1</sub>/A bound pronouns are always used with mĩna and A always appears in the nominative and P in the dative.

- (4.7) ɲarpa-ɲi ɲini ini-mĩna-n  
*other-loc you remain-imperf-you*  
*'You're living with someone else'.*
- (4.8) ɲini ɲai-mĩna-n jur-ku a-i uɔcinta  
*you hit-imperf-you man-dat comp-he bleed*  
*'You are hitting him and making him bleed/so that he's bleeding'.*

## 4.2.5. maɲɲi IMPERFECT II

-maɲɲi is used to indicate an ongoing state or activity. It is used in independent clauses and it is used to mark intransitive verbs of subordinate clauses which qualify nominals (see example (4.10)).

If the S<sub>1</sub> of a subordinate clause marked by -maɲɲi is dual or plural, it is marked by kuju or kina respectively (see examples (4.13) and (4.14)). If the nominal qualified by a -maɲɲi clause is in A function and is non-singular, it is marked by the nominative and P appears in the dative (see example (4.13)); i.e. the anti-passive construction is used.

Note that case suffixes may be added to -maɲɲi (example (4.11)). Compare -ɲin (§4.2.10.).

- (4.9) kua-ɲaɲu caa kuu muɲɲu-wajintiji-maɲɲi  
*creek-abl here water face-carry-imperfect*  
*'She is bringing water from the creek'.*  
 (muɲɲu indicates direction towards the speaker)
- (4.10) ɲa-ci kuɲa-ji aɲka-maɲɲi-ɲu ɲaji caa ɲuɲumpiri  
*me-dat fa-erg ail-imperf-erg hit here bad*  
*'My sick father hit the bad man'.*
- (4.11) ɲai iɲka piɲcamu-wajara-maɲɲi-ɲiina  
*I go sun-emerge-imperf-allative II*  
*'I am going towards the rising sun'.*
- (4.12) paa ɲai piɲa-piɲa-ja ɲaɲiji iɲka-maɲɲi-i  
*there I child-dat see go-imperf-dat*  
*'I'm watching that kid walking'.*
- (4.13) caa-(w)atikaja ɲataɲati-maɲɲi-kuju ɲuar-ku ɲaji-ɲa  
*this-dual sit-imperf-dual snake-dat kill-past*  
*'These two sitting together killed a snake'.*
- (4.14) piɲ-ti caa ɲumaji-mpa-n kunka ɲaɲci-maɲɲi-kina-ka  
*you-erg here break-perf-you stick lie-imperf-plur-ø*  
*'You've broken the sticks that were lying about everywhere'.*

## 4.2.6. -pcaŋu HABITUAL

The semantic range of -pcaŋu can be determined from the following examples. Note that in transitive clauses the anti-passive construction is used (cf. §3.1.).

- (4.15) wii pini wani-pcaŋu warma-a  
*query you play-habit dance-dat*  
*'Do you dance?'*  
 kuntu ŋai wani-pcaŋu 'No, I don't'.
- (4.16) pini tuji-pcaŋu maa-ci, kuntu ŋai tuji-mia  
*you cook-habit food-dat not I cook-poss*  
*'You (can) cook, but I can't'.*
- (4.17) caa-(w)atikaja ŋuŋi tapantu-tu la-ti-pcaŋu-ju  
*this-dual always foot-erg hit-re-habit-they:2*  
*'These two are always kicking one another'.*
- (4.18) maŋa-ŋujan maŋapai-ka iŋka-caŋu-na ŋkaŋa-a  
*much-times woman-ø go-habit-they yam-dat*  
*'Often the women used to go for yams'.*
- (4.19) ŋai ciŋaanmaji-ŋcaŋu ŋa-ci-wa-ku ŋaur-ku-wa,  
*I look-after-habit me-dat-lig-dat kid-dat-ø*  
 putapiti-pcaŋu  
*feed:up-habit*  
*'I look after my kid and feed him up'.*

## 4.2.7. -pcaaja PURPOSIVE

Note that all of the examples can be paralleled by the favourite construction (see §4.3.). -pcaaja is almost certainly analysable as -pca (as in -pcaani and -pcaŋu) and the dative -aja, but I doubt if it is worth making this analysis from the point of view of explaining how the grammar functions. There are some examples of -pcaaja as a main verb indicating purposive or simply future time.

- (4.20) ŋata iŋka maa-ci aŋi-li-pcaaja  
*we go food-dat eat-a/p-purposive*  
*'We are going to eat (food)'.*
- (4.21) ucan caa aŋpa-ja maa-ci tuji-manti-caaja (For manti  
*wood here gather-imp food-dat cook-with-purposive see*  
*'Gather some wood to cook (food) with'.* §5.3.6.)
- (4.22) muŋtuŋara ŋa-tu aŋi-pcaaja tuku  
*other I-erg give-purp dog*  
*'I'm going to give it to the other dog'.*
- (4.23) kanimajipciŋu ŋali muŋtuŋati la-ti-pcaaja  
*policeman:erg us:2 prevent hit-re-purp*  
*'The policeman stopped us from fighting'.*  
 (Compare example (4.88)).



- (4.24)    *nini iŋka-na nauŋa ɭa-ɾcaaja*  
           *you go-past hither hit-purp*  
           '*You came to get belted*'.

Note the operation of the anti-passive in these examples. The anti-passive is used in subordinate clauses when A of the subordinate clause co-references an actant in an absolutive relation in the governing clause. It is used in (4.20) since A co-references  $S_1$ . It is not used in (4.21) since A co-references A. Note that if the anti-passive marker had been used in (4.21) it would have occurred between *-maŋji* and *-caaja*. The *-ji* of *ɭuji* is not significant. For some strange reason the *-ji* form is always used before *-manti* (the function of which is described in 5.3.6.).

In (4.22) the verb marked by *-ɾcaaja* is independent. In these circumstances no *-ji* is used.

In (4.24) P co-references  $S_1$  so no anti-passive is required.

Although my examples indicate that the anti-passive is used when A co-references  $S_1$  or P as opposed to A, I do not have examples to indicate what happens when A co-references an actant in an oblique case.

#### 4.2.8.    *-ja* IMPERATIVE

The forms of the imperative have been dealt with in §3.3. The following sentences illustrate the singular, dual and plural with both intransitive and transitive verbs.

- (4.25)    *paɾca-ja            ŋulurmi-ja ana ŋuji*  
           *intensive-imp hold-imp    lest fall*  
           '*Hold him tight or he might fall*'.

(the verb *paɾca-* has no direct equivalent in English. It corresponds roughly to the intensive adverb 'very' in semantic range)

- (4.26)    *iŋka-ji-n!    iŋka-ja-u    ŋa-cina*  
           *go-imp-you    go-imp-hither me-allative*  
           '*Come! Come here to me!*'

- (4.27)    *iŋka-ji-ŋɭu-mpi    jaŋkaŋa*  
           *go-imp-away-you:2 alone*  
           '*Go away on your own you two!*'

- (4.28)    *ɭuna-ji-ŋɭu-tu    paŋaŋɭun!*  
           *run-imp-away-you far:over*  
           '*You mob run away over there!*'

- (4.29)    *wanta ɭa-ja    kina*  
           *don't hit-imp them*  
           '*Don't hit them*'.

- (4.30) *nuwa kumpi-ka! laa kumpaja!*  
*look-imp you:two-ø kill you:two*  
*'Look out you two! It might kill you.'*  
 (See §4.4. for the construction of the second clause.)

- (4.31) *maa caa nutu-ju ala kutu*  
*food here you-erg eat:imp you:plural*  
*'You mob eat up this food.'*

- (4.32) *ciṭaanmi-ja kina naur*  
*look after-imp them kid*  
*'Look after them kids.'*

- (4.33) *punpati-ja-ŋi*  
*talk-imp-me*  
*'Talk to me.'*

kuju and kina refer to the RECIPIENT of three place verbs.

- (4.34) *paa-(w)atikaja luwati awa kaju*  
*they-dual two give:imp them:dual*  
*'Give it to them two.'*

- (4.35) *malṭa juru paa-miakaja ini, awa kina*  
*mob man they-plur be:present give:imp them*  
*'They're a big mob. Give it to them.'*

#### 4.2.9. -mpa (a) PERFECT (b) SEQUENTIAL

-mpa has been glossed as 'perfect' on the basis of its usage in single sentences where it indicates the completion of an activity or state. In successive sentences of narrative, it simply refers to actions performed in sequence and has been glossed as seq(ue)ntial).

- (4.36) *pini ucan-tu maniji-ṅa pini japacara-ṭati-ṅa-mpa-n?*  
*you fire-erg burn-past. you well-intr-past-perf-you*  
*'You got burnt in the fire. Are you well again?'*
- (4.37) *wili pin-ti waku ciaji-mpa-n?*  
*query you-erg skin take:out-perf-you*  
*'Have you cleaned [sic] the skin?'*
- (4.38) *caa ṅa-ṭu maniji ṭuar-ka jaṅari maniji-mpa laa*  
*here I-erg get snake-ø tail get-seq then*  
*'I got the snake, got the tail and then I whizzed*  
*wakini laji-mantiji-mpa mu-ṭu*  
*spin hit-with-seq ground-loc*  
*it around and cracked it on the ground'.*
- (4.39) *caa ṅa-ṭu ununtuji macumpa-ka, unuricuṛuna iṭiti-mpa*  
*here I-erg gut kangaroo-ø guts throw-seq*  
*'I gutted the kangaroo and then I threw the guts away'.*

- (4.40)    *nini*    *iŋka-na*    *ŋaini*    *iti-ŋa-mpa-n*  
           *you*    *go-past*    *later*    *return-past-perf-you*  
           *'You went and then you came back later'.*

#### 4.2.10.    -*pin*    PARTICIPLE

-*pin* (with a variant -*cin* after stems with a nasal-plus-stop cluster) occurs both in subordinate clauses and independent clauses. The label "participle" is suggested on the basis of typical examples such as:

- (4.41)    *ŋa-tu*    *ŋapa*    *macumpa*    *ari-li-pin*    *kaŋir-ku*  
           *I-erg*    *saw*    *roo*    *eat a/p-part*    *grass-dat*  
           *'I saw the kangaroo eating grass'.*

Here it corresponds to the English present participle. It also exhibits another participle-like property in that it facilitates the addition of case forms to verb stems:

- (4.42)    *jaŋikajan-ati-pin-tu*    *caa*    *ŋa-tu*    *laji*  
           *hungry-intr-part-erg*    *here*    *I-erg*    *kill*  
           *'Being hungry I killed it'.*

However, -*pin* may be used as a finite verb form in independent clauses:

- (4.43)    *kupaŋuru-tu*    *ŋaima-pin*  
           *old man-erg*    *chase-part*  
           *'The old man is giving chase'.*

When used to form a finite verb, -*pin* appears to be non-specific as to tense and aspect. Examples occur in which the reference is to present or past time and to imperfect, perfect or punctiliar aspect. The translation of the immediately preceding example is on the basis of the situation and the speaker's translation. For similar examples see the texts.

When A of a -*pin* clause co-references an actant the anti-passive is used in the -*pin* clause. See examples (4.45) and (4.48).

The only examples in which a -*pin* clause qualifies the A of the governing clause involve -*pin* suffixed to an intransitive verb as in (4.42) above.

-*pin* commonly occurs with both transitive and intransitive verbs in clauses qualifying the P of the governing clause:

- (4.44)    *tuatu*    *pa-ji*    *maŋapai*    *icaji*    *iŋka-λ-iŋka-cin*  
           *snake:erg*    *that-erg*    *woman*    *bite*    *go-lig-go-part*  
           *'The snake bit the woman as she was walking along'.*
- (4.45)    *ŋa-tu*    *laji*    *juru*    *niŋa-ji-pin*    *ŋa-ci-wa-ku*    *jalkapaŋi-i*  
           *I-erg*    *hit*    *man*    *steal-a/p-part*    *me-dat-lig-dat*    *boo-dat*  
           *'I hit the man for stealing/ as he was stealing/ who stole my boomerang'.*

- (4.46) kuni-ja caa ɲarpa a-i ɲari-ji piŋci-cin-ku macumpa-a  
*call-imp here other comp-he see-a/p cut-part-dat roo-dat*  
*'Call the other one to see the kangaroo when it is cut up'.*

It also occurs qualifying a DATIVE complement:

- (4.47) ɲkumaji ɲai-ka tumpaki-i pa-ji kupaɲuru-tu utijakapi-  
*seek I tobacco-det that-erg old:man-erg lose-part-*  
*pin-ku*  
*dat*  
*'I'm looking for the tobacco the old man lost'.*

-pin occurs with both transitive and intransitive verbs qualifying the S<sub>1</sub> of the governing clause:

- (4.48) ɲai unuani ɲun-ku ɲari-ji-pin  
*I rejoice you-dat see-a/p-part*  
*'I'm happy to see you (happy at seeing you)'.*
- (4.49) kuntu caa !uɲa-ɲa ɲa-tu la-pin-ka  
*not here cry-past I-erg hit-part-∅*  
*'He didn't cry when I hit him'.*
- (4.50) iŋka-ʌ-iŋka wampa !uɲa-pin  
*go-lig-go girl cry-part*  
*'The girl is walking along crying'.*

A -pin clause may modify another clause without there being an actant common to the -pin clause and the main clause. In such instances the anti-passive naturally enough will not occur with the -pin verb:

- (4.51) unuani-ɲa ɲai-ka pin-ti la-pin caa tuar-ka  
*rejoice-past I-∅ you-erg kill-part here snake-∅*  
*'I was glad you killed the snake'.*

-pin is commonly supported by the addition of -ta, which I take to be a locative allomorph - see §3.2.2. when the participial clause has this adverbial function:

- (4.52) kuntu aɲii-pin-ta, caa-ka uɲi-mi  
*not fall-part-loc here-∅ die-future*  
*'If it doesn't rain, it will die'.*
- (4.53) maa-ci ɲai aɲi-li-pin-ta unuŋkaɲi-ka jaun tɲuna  
*food-dat I eat-a/p-part-loc wind-∅ big blow*  
*'While I was eating, a strong wind was blowing'.*

The use of the anti-passive in the first clause of (4.53) is semantically not syntactically motivated.

#### 4.2.11. -mia POSSIBILITY

-mia will be glossed as poss(ibility). It means 'might' or 'can'. The combination of the negative and -mia means 'cannot'. In complex

sentences combined with an indication of past time, it is used to express the irrealis 'would have'.

- (4.54)    *ηai maka<sub>1</sub>i-jan kari-ti-mia*  
*I hand-con wipe-re-poss*  
*'I've got a hand to wash myself (I don't want you touching me)'.*
- (4.55)    *kuntu puju ηai kapani-pin-ka, ηai ja<sub>1</sub>rikajan-ati-mia*  
*not if I hunt-part-∅ I hungry-intr-poss*  
*'If I don't go hunting, I might get hungry'.*
- (4.56)    *ma<sub>1</sub>nu-tati ηai maka<sub>1</sub>i watiga, kuntu ηulurmaji-mia*  
*weak-intr I hand both not hold-poss*  
*pa<sub>1</sub>ncaji-mia*  
*very-poss*  
*'My hands have become weak; I can't hold it tight'.*
- (4.57)    *ηa-tu pini cajan<sub>1</sub>a la-mia, kuntu i<sub>1</sub>ka-cin-ta kanimai<sub>1</sub>ncir-ka*  
*I-erg you formerly hit-poss not go-part-loc policeman-∅*  
*'I would've hit you if the policeman had not come'.*
- (4.58)    *kuntu puju pini iti-<sub>1</sub>ηa            caa-miakaja-!u a-ηi-na*  
*not if you return-past this-pl-erg comp-me-they*  
*la-mia*  
*hit-poss*  
*'If you hadn't come back, they would've hit me'.*  
 (See §4.3. for the construction illustrated in the second clause.)

#### 4.2.12. -ma

The following verbs appear with a present tense suffix -ma. It coincides in form and function with Yalarnga -ma, but what its exact status in Kalkatungu is I'm not sure.

<i>patu-ma</i>	<i>'to instruct, to tell someone to do something'</i>
<i>juu or juu-ma</i>	<i>'to climb' (-∅ and -ma both occur)</i>
<i>a<sub>1</sub>i or a<sub>1</sub>i-ma</i>	<i>'to eat'</i>
<i>lii-ma</i>	<i>'to leave' (transitive), 'to relinquish'</i>
	<i>(see note at end of §4.1.)</i>

#### 4.2.13. -mu

The following verb appears with a past tense -mu, which coincides in form and function with Yalarnga -mu.

<i>a<sub>1</sub>imu</i>	<i>'ate'</i>
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## 4.3. THE FAVOURITE CONSTRUCTION

Kalkatungu employs a construction in which there is a particle a-, glossed as comp(lementiser), to which bound pronouns are suffixed. This construction occurs as a complement to verbs and to nouns and is used to express purpose, result and indirect commands. The following is a typical example:

- (4.59) maṛapai iŋka-ŋa ŋkaṛa-a a-i waḷukati-ji  
 woman go-past yam-dat comp-she dig-a/p  
 'The woman went to dig yams'.

This construction carries a high functional load and occurs with very high frequency so for convenience of reference I have labelled it "the favourite construction". Besides occurring as a dependent clause, it may also be used independently. This usage is dealt with at the end of the section.

The verb of the favourite construction is probably finite but in the nature of things there is little requirement for tense and aspect to appear. -mia (possibility) is the only suffix to appear in the favourite construction except for one isolated case with -ŋa (past) and one with -miŋa (imperfect).

The bound pronoun or pronouns that occur in the favourite construction typically co-reference an actant in the governing clause, but they may represent a new actant (one not present even covertly in the main clause) or they may cross-reference an actant of the dependent clause.

In general only one actant may be encoded by a bound pronoun in the dependent clause and the choice as to which actant is to be encoded is made according to a person hierarchy rule. First person is given precedence over second and third, and second over third. If, however, one actant is first singular and the other third non-singular, then both may be encoded by bound pronouns:

- (4.60) iŋka-ŋa a-ŋi ɭaa  
 go-past comp-me hit  
 'He came to hit me'.
- (4.61) kuntu ŋai iŋka-ŋa ŋun-ku ɭaa ɭa-ji  
 not I go-past you-dat comp:I hit-a/p  
 'I didn't come to hit you'.
- (4.62) iŋka-ŋa ŋini ɭina-a a-ŋi ɭa-ji?  
 go-past you they-dat comp-you hit-a/p  
 'Did you go to hit them?'
- (4.63) waira ŋai ŋuu a-ŋi-na ŋuwa  
 heart me lie comp-me-they see  
 'I want them to see me'.

- (4.64)    ɲai waira ɲuu paa-miakaja-a    ɭaa    kina ɭaa  
           me heart lie that-plural-dat comp:I them hit  
           'I want to hit them'.

In the last example kina is a clitic form for third person plural in P function distinct from the free form ɭina. The sequence ɭaa kina ɭaa is usually pronounced ɭakɲaɭa in rapid tempo. The second a in ɭaa (complementiser plus first person subject) and in ɭaa ('hit') is an augment required when these forms are pronounced as separate words.

Where there are three actants involved in the dependent clause the P forms refer to the RECIPIENT not the PATIENT. Normally it will be the case that the PATIENT of a three-place verb will be third person and the RECIPIENT will often as not be first or second person. I have no examples of a first or second person PATIENT with a third person RECIPIENT.

- (4.65)    iŋka-ɲa    a-ŋ-awa    (<a-ŋi-awa)  
           go-past    comp-me-give  
           'He came to give it to me'.
- (4.66)    waira ɲai ɲuu ɭaa    kin-awa (<ɭaa kina awa)  
           heart I    lie comp:I them-give  
           'I want to give it to them'.

If both A and P (or the RECIPIENT in the case of a three-place verb) are third person, then A must be represented by a bound pronoun never P,

- (4.67)    iŋka-ɲa    a-ina    ɲuwa  
           go-past    comp-they see  
           'He came for them to have a look at him'.

If there is only one bound pronoun in the dependent clause and if it represents A, then the anti-passive construction is used whenever A co-references S<sub>1</sub> or P.

As mentioned in §3.1., the anti-passive construction is one in which A appears in the nominative and P in the dative and in which the verb is marked by -ji. However, some verbs are irregular in their non-ji forms, exhibiting in most cases a form homophonous with the imperative:

-ji form	non -ji form	
ɲaɲiji	ɲuwa	'see' (see examples (4.67),(4.71))
aɲiji	awa	'give'(see examples (4.65),(4.66))

(but ɲaɲi and aɲi are used in constructions other than the favourite one)

ɲulurmaji	ɲulurmi	'catch'
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(similarly all other verbs in -ma)

aɾili	ala	'eat'
ŋtiaɿi	ŋtiila	'sharpen'
ciaɿi	ciil(a)	'take out of'
ŋkaaɿi	ŋkaaila, ŋkaa	'spear'
maiɿi	mai, mail(a)	'rub, paint'
aaɿi	aaɿ(a)	'put down, place'
ɿuji	ɿi-	'cook, burn'

(but ɿu- in other constructions e.g. ɿu-ŋcaja)

iɿitiji	iɿita	'throw'
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(similarly with other -ti stems)

The following examples illustrate some of the co-referencing possibilities.

A co-references  $S_1$  (anti-passive required).

See example (4.61).

$S_1$  co-references A (anti-passive in governing clause).

On the basis of a small number of examples it seems that where  $S_1$  co-references A in the governing clause, the anti-passive is used in the governing clause:

- (4.68)    caa juru cipa-a sādəl-ku maniji a-i iŋka  
           *this man this-dat saddle-dat get comp-he go*  
           puliɿi-ija a-i ŋukupuni-ji  
           *bullock-dat comp-he muster-a/p*  
           '*This man got the saddle to go to muster the cattle*'.

A co-references P (anti-passive required).

- (4.69)    ŋa-ɿu pini pati-ŋa ɿaŋɿu-u a-ni waɿukati-ji  
           *I-erg you tell-past hole-dat comp-you dig-a/p*  
           '*I told you to dig a hole*'.

A co-references A (no anti-passive).

- (4.70)    ŋa-ɿu ŋapa paa kaniŋajɿcir ŋulurma-ji-ŋin juŋɿu-u  
           *I-erg saw there policeman grab-a/p-part arm-dat*  
           a-i itinti a-i aŋɿakami  
           *comp-he bring:back comp-he lock:up*  
           '*I saw the policeman grab him by the arm and/to take him*  
           *back and/to lock him up*'.

Note that in (4.70) A in the second clause appears in the nominative because the anti-passive is used. A in the second clause co-references P in the first clause so this is to be expected. Actually A does not appear in the second clause, but its case form can be deduced from the presence of the dative for juŋɿu and -ji- on the verb. Note that A in the third clause co-references an A that is in the nominative and that no anti-passive A is used in the third clause. Normally no anti-



passive is used where A co-references A but one might have thought that if the anti-passive construction was intransitive then A in the third clause would be co-referencing  $S_1$  in the second.

Unfortunately one cannot argue conclusively that the anti-passive involves a change of case marking but not a change in case relations (transitive to intransitive construction), since the rule for the use of the anti-passive could be framed on the basis of underlying or semantic case relations. In the fourth clause no anti-passive is used because A co-references A. Note in this instance A in the third clause is nominative because it is represented by a bound pronoun but if a noun had been used then the form would have been ergative.

A co-references ALLATIVE (no anti-passive)

- (4.71)     $\eta$ a- $\dot{\eta}$ u     $\eta$ un-ku $\eta$ a    piipa    itintiji    a-ni     $\eta$ uwa  
           I-erg you-all    book    bring    comp-you see  
           'I brought you a book for you to have a look at'.

Where A co-references the RECIPIENT of the verb  $\eta$ ni ('to give'), examples can be found with and without the anti-passive.

A co-references RECIPIENT (anti-passive in some instances)

- (4.72)     $\eta$ ai     $\eta$ a-ci-wa- $\dot{\eta}$ u    kunku $\eta$ u- $\dot{\eta}$ u     $\eta$ na    kuu     $\dot{\eta}$ aa    aia  
           me    me-dat-lig-erg daughter-erg gave water comp:I drink  
           'My daughter gave me water to drink'.

See also example (4.81). The verb in (4.81)  $\eta$ na $\eta$ una $\eta$ ni, is a compound of  $\eta$ na $\eta$ una and  $\eta$ ni.

In all the available examples R is in the nominative (and probably syntactically the PATIENT), not in the allative.

In some instances the presence or absence of the anti-passive is critical from the information point of view. Compare the following for example:

- (4.73)     $\eta$ a-u $\eta$ a    i $\eta$ ka- $\eta$ a    a-i     $\eta$ uwa  
           here-all go-past    comp-he see

This could be translated as 'He came here for someone to see', 'He came here to be seen', 'He came here so that he could see him', but in the last case the second 'he' could not be co-referential with the first.

- (4.74)     $\eta$ a-u $\eta$ a    i $\eta$ ka- $\eta$ a    a-i     $\eta$ ni- $\dot{\eta}$ i  
           here-all go-past    comp-he see-a/p  
           'He came here to see (him, her, it)'.

In this instance, the A of the dependent verb must be interpreted as being co-referential with  $S_1$  because of the presence of the anti-passive.

The particle a- with bound pronouns suffixed to it also occurs in independent clauses as a means of expressing the future. The verb form is always in the "non- $\dot{\eta}$ i" form (i.e. without the anti-passive marker)

in these independent clauses. Since *a-* is not a complementiser in such cases, I have glossed it as part(icle). Note that the bound pronouns suffixed to it become cross-referencing rather than co-referencing.

- (4.75) *kuntu ɲai paŋɪji ɲini aŋka-cin, ɲai-ka ɭaa*  
*not I know you ail-part I-ø part:I*  
*iti-mia*  
*return-poss*  
*'I didn't know you were sick or I would've come back'.*
- (4.76) *ati ɲin-ti a-ni ciil puŋkuari-ɪɲu?*  
*meat you-erg part-you take bag-abl*  
*'Are you going to take the meat out of the bag?'*
- (4.77) *ɲa-ɪu a-jin-awa (<a-kin awa)*  
*I-erg part-you-give*  
*'I'll give it to you'.*

In the first of this group of sentences, it looks as if there is a complement to a verb that is 'understood', but this is untenable in (4.76) and (4.77) where the ergative is used.

I do not have enough transitive examples of this construction to be certain how it is determined which actant will appear as a bound pronoun. The person hierarchy seems to operate in most cases but note in (4.77) the second person P was encoded as a bound pronoun rather than a first person A.

There are some examples of this construction used with the negative and the sense is normally something like '*must not*' rather than simple futurity.

- (4.78) *kuntu maɲapai-ɪu a-i ɲuwa*  
*not woman-erg part-she see*  
*'A woman is not (allowed) to see it'.*

The rest of this section consists of a list of examples classified according to syntactic and semantic function.

(a) expressing an indirect command

- (4.79) *pati-ja a-i iŋka ɲa-ciŋa*  
*tell-imp comp-he go me-allative*  
*'Tell him to come to me'.*

The negative indirect command is formed with *kuntu* preceding the complementiser.

- (4.80) *cipa-ji kupaŋuru-ɪu caa patu-ma kujiri kuntu a-i*  
*this-erg old man-erg here tell-pres boy not comp-he*  
*panti-ji*  
*tell-a/p*  
*'The old man told the boy not to tell anyone'.*

(b) expressing the complement of ḡunaḡunaani ('to teach')

- (4.81) ḡa-ci kuḡa-ji ḡai ḡunaḡunaana juku-u ḡaa iḡiti-ji  
 me-dat fa-erg me taught spear-dat comp:I throw-a/p  
 'My father taught me to throw a spear'.

(c) expressing an indirect statement

- (4.82) ḡiḡa-ḡku ḡai pati-ḡa a-ḡi iḡci-cami  
 girl-erg me tell-past comp-me chop-tr  
 'The girl told me that she would chop (wood) for me'.  
 Compare example (6.18).

cami is the "non-ji" form of ḡcama, a derivational affix used to promote a DATIVE participant to the absolutive relation. The appropriate synchronic analysis is to treat ḡcama as an affix, but it has a verbal characteristic in that it exhibits anti-passive versus normal forms. Historically it must be -ḡca plus ma, the second element of -ma class verbs. Doubtless ma was a verb historically.

(d) expressing the complement of waira ḡu- ('to like', 'to desire'):

- (4.83) kuntu ḡai waira-ka ḡuu ḡaa iḡka  
 not I heart-∅ lie comp:I go  
 'I don't want to go'.
- (4.84) ḡai kuntu waira ḡuu ḡin-ti-ka a-ḡi kari-ka  
 I not heart lie you-erg-∅ comp-me wash-∅  
 'I don't want you to wash me'.

(e) adjunct expressing result

- (4.85) ḡan-tu caa piḡa-piḡa ḡaji a-i ḡuḡa-ka  
 who-erg here child hit comp-he cry-∅  
 'Who hit the child so that he cried?'
- (4.86) ḡuku caa ḡin-ti ḡaji a-i uḡi  
 dog here you-erg hit comp-he die  
 'You hit the dog and he died (as a result)'.

(f) adjunct expressing purpose

- (4.87) jarka iḡka-ja-tu a-ḡur wani-ka  
 far go-imp-you comp-you play-∅  
 'Go a long way away and play'.

(g) expressing the complement of muḡḡunati ('to prevent') (compare (4.23))

- (4.88) ḡa-ḡu caa-miakaja muḡḡunati kuntu a-ina ḡa-ti  
 I-erg this-plural prevent not comp-they hit-recip  
 'I prevented these (people) from fighting'.

(h) expressing the complement of the phrase NP puḷura (NP 'had better')

- (4.89) ḡaḷi puḷura a-ḷi ini kuntu a-ḷi ḡumpi  
*we good comp-we remain not comp-we fear*  
*'We had better stop (here) and not be afraid'.*

(i) expressing an adjunct to a nominal

- (4.90) mutuna caa-ka a-i iḡka-ka  
*shy here-ø comp-he go-ø*  
*'He's (too) shy to go'.*

#### 4.4. THE "LEST" CONSTRUCTION

The "lest" construction appears in a number of variants according to the person of the actants. I have called it the "lest" construction, since all examples could be translated into English by "lest", though not necessarily felicitously. The following examples illustrating the forms are all complements to the verb ḡumpi 'to fear'; other functions are listed at the end of the chapter.

The simplest case to illustrate is an intransitive "lest" clause. The following are the forms that occur in the first and second person,

- (4.91) ḡumpi ḡai ḡuji uḡu-ø  
*fear I fall lest-I*  
*'I'm frightened I'll fall'.*
- (4.92) a ḡumpi ḡai ḡuji uḡun *'you'll fall'*  
 b " " ḡuji uḡul *'we two'll fall'*  
 c " " ḡuji uḡuḡu *'you two'll fall'*  
 d " " ḡuji uḡur *'we'll fall'*  
 e " " ḡuji uḡuḡur *'you mob'll fall'*

In a transitive "lest" clause, in which first or second person acts on third (1>3,2>3), an auxiliary particle kuḡu (=ku+uḡu) is used and AGENT pronouns are suffixed to this,

- (4.93) ḡumpi kupaḡuru ḷuma kuḡu-ø  
*fear old man break lest-I*  
*'The old man's frightened I'll break it'.*
- (4.94) a ḡumpi kupaḡuru ḷuma kuḡun *'you'll break it'*  
 b " " ḷuma kuḡul *'we two'll break it'*  
 c " " ḷuma kuḡuḡu *'you two'll break it'*  
 d " " ḷuma kuḡur *'we'll break it'*  
 e " " ḷuma kuḡuḡur *'you mob'll break it'*

If however third person acts on first or second (3>1,3>2), a pronoun representing P is suffixed to ku and no uḡu appears,

- (4.95) rumpi ηai ica kuŋi  
 fear I bite me  
 'I'm frightened it'll bite me'.
- (4.96) a rumpi ηai ica kukin 'it'll bite you'  
 b " " ica kula 'it'll bite us two'  
 c " " ica kumpaja 'it'll bite you two'  
 d " " ica kuta 'it'll bite us'  
 e " " ica kutu 'it'll bite you'

For the combination, first singular acting on second singular (1>2), there is a portmanteau form,

- (4.97) rumpi ŋini ica kuŋajin?  
 fear you bite 1>2  
 'Are you frightened I'll bite you?'

and the following forms are used for 1>2 Du and 1>2 Pl,

- (4.98) rumpi mpaja ica kuŋajinpaja  
 fear you 2 bite 1>2 Du  
 'Are you two afraid I'll bite you?'
- (4.99) rumpi ŋutu ica kuŋajinitu  
 fear you bite 1>2 Pl  
 'Are you mob afraid I'll bite you?'

For the combinations 3 Du > 1 and 3 Pl > 1, the following are used,

- (4.100) rumpi ηai ɭaa kuŋi-ju  
 fear I hit me-they:2  
 'I'm afraid they'll hit me'.
- (4.101) rumpi ηai ɭaa kuŋi-na  
 fear I hit me-they  
 'I'm afraid they'll hit me'.

The third person intransitive forms are as follows,

- (4.102) a rumpi ηai ana ŋuji  
 fear I lest fall  
 'I'm afraid he'll fall'.  
 b rumpi ηai ana kuju ŋuji 'they two will fall'  
 c " " " kina " 'they (plural) will fall'

And 3 > 3, 3du > 3 and 3pl > 3 are expressed thus,

- (4.103) a rumpi ηai ana ica  
 fear I lest bite  
 'I'm afraid it'll bite (him, her, it)'.  
 b rumpi ηai ana kuju ica 'they two will bite (him, her, it)'.  
 c " " " kina " 'they'll bite (him, her, it)'.

Where both actants are third person, and P is dual or plural, the non-singular number of P must be represented by a free form pronoun (or noun):

- (4.104) pi|api|a rumpi-muju cipa-watikaja-|uŋu ana kuju  
*child fear-dual this-dual-caus lest they:2(A)*  
 puju-|a  
*they:2(P)-hit*  
*'The two children are frightened that these two men*  
*will hit them'.*

(Note in passing that the monosyllabic verb |a- is cliticised to the preceding pronoun.)

The interesting thing about these constructions is that kuju and kina represent S<sub>1</sub> and A. However, if used in conjunction with kũŋu or kũŋun, they represent P (compare remarks in §3.3 and see discussion in chapter 7).

- (4.105) rumpi kupaŋuru kũŋu-ø kina |aa  
*fear old man lest-I them hit*  
*'The old man's afraid I'll hit them'.*
- (4.106) rumpi kupaŋuru kũŋu-n kuju |aa  
*fear old man lest-you them:two hit*  
*'The old man's afraid you'll hit them two'.*

The informant from whom the bulk of these paradigms were taken, Lardie Moonlight, was hesitant about translating other combinations involving first and second person actants (e.g. 1 Du > 2 Pl) and gave the following construction consistently,

- (4.107) rumpi ŋa|i mpaja-ji |a-mi ku-|a  
*fear we:2 you:2 -erg hit-future us:two*  
*'We're afraid you two'll hit us'.*

However, she would say things like, *'That's not really right. There's another twist in that again'*, suggesting that she has forgotten some of the less common morphological complications.

If a bound pronoun representing the AGENT in a "lest" clause co-references an actant S<sub>1</sub> or P function, the anti-passive construction must be used. Compare the following,

- (4.108) |apan|u paa-miakaja rumpi ana kina |ua-ji  
*foot that-plural fear lest they cut-a/p*  
 kampuŋu-|u (S<sub>1</sub> = A)  
*sharp:stone-erg*  
*'Those ones are frightened they might cut their feet on*  
*a sharp stone'.*

- (4.109) rumpi juru cipa-ji juru-ḡara-ḡu ana ḡkaa  
 fear man this-erg man-other-erg lest spear  
 juku-ḡku (∅ = A)  
 spear-erg  
 'The man is frightened this other man might spear him'.
- (4.110) cuḡuḡati caa-ka ana ḡuwa (∅ = A)  
 hide here-∅ lest see  
 'He's hiding in case he's seen/somebody sees him'.
- (4.111) caa ḡaur rumpi ana ḡuma-ji ana kina ḡaa  
 here child fear lest break-a/p lest they hit  
 ḡuma-ji-ḡin (S<sub>1</sub> = A, ∅ = A, P = A)  
 break-a/p-part  
 'The child is frightened he might break it and they'll  
 hit him for breaking it'.
- (4.112) rumpi ḡini kuḡu-n ḡuma-ji? (S<sub>1</sub> = A)  
 fear you lest-you break-a/p  
 'Are you frightened you'll break it?'
- (4.113) ḡa-ja caa ḡuar ana ica-ji (P = A)  
 kill-imp here snake lest bite  
 'Kill the snake in case it bites him'.
- (4.114) wakaḡa-ḡuḡu caa rumpi ana ica (CAUSAL = A)  
 crow -causal here fear lest bite  
 'He's frightened of the crow; it might bite him'.

If the AGENT of a transitive "lest" clause appears as a noun phrase, it may be marked by the ergative in the normal way, unless the anti-passive is used:

- (4.115) rumpi ḡai ḡuku-ju ica ku-ḡi  
 fear I dog-erg bite me  
 'I'm afraid the dog'll bite me'.

However, if the word for 'fear' is involved as in the above example, it is much more common to use a causal noun phrase thus,

- (4.116) rumpi ḡai ḡuku-juḡu ica kuḡi

Sentences (4.115) and (4.116) probably represent two conceptualisations of the same situation, but they mean the same thing for practical purposes. I think (4.116) means 'I'm afraid of the dog (that he might bite me)'. Grammatically ḡukuḡu is in the governing clause.

The following table summarises the auxiliary particles and bound pronouns that have been recorded for the various combinations of actants of different person and number in the lest construction.

P A T I E N T

A G E N T

		SINGULAR			DUAL			PLURAL		
		1	2	3	1	2	3	1	2	3
SINGULAR	1	-	kuṇajin	kuḍu		kuṇajinpaja	kuḍu kuju		kuṇajinitu	kuḍu kina
	2	kuṇi		kuḍun			kuḍun kuju			kuḍun kina
	3	kuṇi	kukin	ana	kula	kumpaja		kuta	kutu	
DUAL	1			kuḍul kuḍal						
	2			kuḍaḍu kuḍuḍu						
	3	kuṇiju		ana kuju						
PLURAL	1			kuḍur kuḍar						
	2			kuḍaḍur kuḍuḍur						
	3	kuṇina		ana kina						



The meaning of the "lest" construction can be more easily illustrated than explained and the following informal list of examples is designed to do just that. Note that the "lest" construction is not always formally subordinated and sometimes occurs as the only clause in the sentence. With the favourite construction it is possible to distinguish sentences in which what appears to be the favourite construction is clearly independent (see (4.75), (4.76), (4.77)). With the "lest" construction the difficulty is to demonstrate that it is ever subordinate. I think that the use of the "-ji" form of the verb alternating with the unmarked form is clear evidence of subordination. The anti-passive principle is regularly employed with subordinate clauses and not with co-ordinated clauses. However, in many instances there can be no such evidence. For example, if the lest clause is intransitive or if it is transitive with a first or second person patient, there is no possibility of a syntactically determined alternation between the "-ji" and unmarked forms.

- (4.117) uṭima kuṅu-n kuṛuku-ji  
use up lest-you grog-locative  
'You might spend it all on grog'.
- (4.118) ica ku-ŋi cipa-ji , uḷi uṅu  
bite me this-erg die lest:I  
'He might bite me. I might die'.
- (4.119) ṅutu-ju wanta wani-nti-ja , ṭuma kuṅu-r  
you-erg don't play-with-imp break lest-you  
'Don't you mob play with it. You might break it  
jari ana iṅga a-i ṅṭi-ji  
w:man lest go comp-he scold-a/p  
and the white man might come and rouse (on you)'.
- (4.120) aṅka uṅu-n  
ail lest-you  
'You might fall ill' (following sentences that mean,  
'Don't eat that fruit. It's been on the ground a long  
time.')
- (4.121) kaḷaa ṭu-ti uṅu-n  
neck break lest-you  
'You might drown' (following sentences that mean,  
'Don't swim there. The current is too fast'. kaḷaa ṭuti  
is literally 'to break one's neck' but it is the regular  
idiom for 'to drown').

- (4.122) macumpa-tuŋu caa rumpi ana laa tapantu-tu  
 roo-causal here fear lest hit foot-erg  
*'He's frightened of the kangaroo in case it kicks him'.*  
*'He's frightened the kangaroo might kick him'.*

- (4.123) muŋtani caa-ka ana ŋuwa  
 crouch here-Ø lest see  
*'He crouched over so he wouldn't be seen'.*

(cf. (4.73) Note that the use of ŋuwa as opposed to ŋapiji indicates the A of the lest clause cannot be co-referential with S<sub>1</sub> in the main clause.)

- (4.124) rumpi caa piŋa-piŋa cipa-ja mucuŋ-tuŋu ana ica  
 fear here child this-caus hawk-caus lest bite  
 piku-ŋku ana piŋci miŋti  
 claw-erg lest scratch eyes  
*'The child is frightened the chicken hawk'll bite him  
 and claw his eyes (out?)'.*

- (4.125) tuku-ju ica ku-ŋi  
 dog-erg bite lest-me  
*'The dog might bite me'.*

(The use of this construction implies a sense of *'I hope he won't'*. The free form lamu is used where one is merely speculating about what might happen.)

- (4.126) iti-ji puju ŋaŋtama ku-kin, iti-ja maŋampira  
 man-erg if find lest-you return-imp quickly  
*'If someone comes across you, come back quickly'.*

- (4.127) maŋampira ŋai-ka aŋpaji, juru ana kina iti-na  
 quickly I-Ø collect man lest they return-they  
*'I am hurrying gathering (the yams) in case the men  
 come back'.*

(The use of -na as well as kina in this construction is not otherwise attested.)

- (4.128) tuŋumpiri caa-ka arkun-aan, la-ji-ŋcir, piŋ-ti la-ja  
 bad here fight-con hit-a/p-nom you-erg hit-imp  
 wacaŋi-ŋa  
 first-adv  
*'The bad one is belligerent. He's a "hitter". You hit  
 him first before he hits you'.*

- (4.129) rumpi caa juru-ka cipa-ji juru-ŋara-tu ana ŋkaa  
 fear here man-Ø this-erg man-other-erg lest spear  
 juku-ŋku  
 spear-erg  
*'The man is afraid the other man will spear him'.*

(4.130)  $\dot{t}$ una-ji ka $\dot{t}$ a-ka $\dot{t}$ a- $\dot{t}$ i a-n-a $\dot{r}$ a  $\eta$ a $\eta$ -ku-kin  $\dot{t}$ ina-ji  
 run-imp rubbish-loc comp-you-enter see-you they-erg  
 'Run and get in the rubbish so they won't see you'.

(a-n-a $\dot{r}$ a = a-ni a $\dot{r}$ a,  $\eta$ a $\eta$  <  $\eta$ a $\eta$ i)

(4.131)  $\dot{t}$ i-ja cu $\dot{t}$ u  $\dot{t}$ uma ku $\eta$ u-n  
 leave-imp cool break lest-you

'Leave the coolaman alone. You might break it'.



## CHAPTER 5

### OTHER FUNCTION MORPHEMES

#### 5.1. INTRODUCTION

This chapter consists of a list of function morphemes including bound forms and free forms. It does not include case inflection, which is dealt with in chapter three, nor tense, aspect, mood and voice marking, which is dealt with in chapter four.

Very broadly three word classes can be determined : nominals, verbs and adverbs. The function morphemes are listed under the headings nominal, verbal and adverb morphology respectively. The morphological processes of reduplication and compounding follow the nominal, verbal and adverb sections and are in turn followed by those function morphemes that are not clearly nominal, verbal or adverbial. The final section of the chapter consists of a rather miscellaneous list of free function morphemes.

#### 5.2. NOMINAL MORPHOLOGY

##### 5.2.1. -jan CONCOMITANT

-jan means having something concrete, having a characteristic, a property or a condition. It may be added to any nominal with the possible exception of the personal pronouns (but see last example). However, although it may be added to any (?) nominal by a general syntactic rule, some instances of nominal plus -jan have idiomatic meanings and must be listed in the lexicon.

(5.1) juku-jan ηai iŋka-mi macumpa-a  
spear-con I go-fut roo-dative  
'I will go for the kangaroo with a spear'.

(5.2) ηai laa puŋur-aan cuŋu-jan  
I now good-con car-con  
'I have a good car'.

- (5.3) ηai-ka ηunkur-aan  
I-Ø cold-con  
'I've got a cold'.
- (5.4) ηawa-jan ηai punpati jaηaalu-u  
heavy-con I speak language-dat  
'I'm talking heavy'. (i.e. not in a simplified way)

Note also *tuar* ('snake'), *tuaraan* ('doctor'); *putu* ('stomach'), *putujan* ('pregnant'); *wami<sub>l</sub>a* ('temple', 'sleep'); *wami<sub>l</sub>ajan* ('asleep'); *arkun* ('fight', 'battle'), *arkunaan* ('belligerent').

There is one example of -jan being used with a personal pronoun,

- (5.5) ηai-jan, ηai mi<sub>l</sub>i<sub>l</sub>i<sub>l</sub>i<sub>l</sub>ati-na ...  
me-con me be born-part  
'(She) had me; I was born...'

#### 5.2.2. -iti PRIVATIVE

- (5.6) ma<sub>l</sub>i-iti ηai kuntu punpati, walpa<sub>l</sub>aji ηa-<sub>l</sub>u  
tongue-less I not speak lose I erg  
'I have no tongue; I (can) not speak. I lost it'.
- (5.7) pa<sub>l</sub>ca-ja ala maa, jalaura-<sub>l</sub>i<sub>l</sub>ati maa-iti  
very-imp eat:imp food sick-intr food-less  
'Eat up your food,[you will] get sick if you don't eat'.

#### 5.2.3. -ηu (with dative stems)

There are a small number of instances of -ηu being added to the dative of nouns to derive a new nominal stem. For convenience I have glossed it as adj(ective).

ku <sub>l</sub> a	'father'	ku <sub>l</sub> a-a-ja-ηu	'male'
pi <sub>l</sub> camu	'sun'	pi <sub>l</sub> camu-u-ja-ηu	'clock', 'watch'
tu <sub>l</sub> u-tu <sub>l</sub> u	'writing'	tu <sub>l</sub> u-tu <sub>l</sub> u-u-ja-ηu	'pen', 'pencil'

In these examples, -ja is a ligative between the dative and -ηu (see §3.5.11., §5.8.). In *tu<sub>l</sub>u-tu<sub>l</sub>u-u-ja-ηu* the dative allomorph -u has no audible reflex as a sequence of three identical vowels is impossible. The same applies to the next example.

- (5.8) araka pakai cu<sub>l</sub>u kuu-u-ja-ηu-ka  
where it coolaman water-dat-lig-adj-Ø  
'Where's the water coolaman?'

There are a few examples where *ηarpa* is suffixed by the dative plus -ηu plus -<sub>l</sub>i (presumably the locative) to express 'because of an interest in'.

- (5.9)    *nin-ti*    *narpa-a-ja-ŋu-ti*    *ŋai*    *li-ma*  
*you-erg*    *other-dat-lig-adj-loc*    *me*    *leave-pres*  
*'You are leaving me because of another one'.*

#### 5.2.4. -ŋu (with adverb stems)

There are a small number of examples of -ŋu suffixed to adverbs to produce a nominal stem.

<i>ila</i>	<i>'now', 'today'</i>	<i>ila-ŋu</i>	<i>'new'</i>
<i>tiinta</i>	<i>'in the middle'</i>	<i>tiinta-ŋu</i>	<i>'middle'</i>
<i>caja-</i>	<i>'old'</i>	<i>caja-ŋu</i>	<i>'old'</i>

*caja-* does not occur in isolation. There is an adverb *caja-ŋa* 'earlier', 'formerly'.

- (5.10)    *uli*    *ŋa-ci-ka*    *wacali-ŋa-ŋu-ka*    *marapai*  
*die*    *me-dat-∅*    *first-adv-adj-∅*    *woman*  
*'My first wife died'.*

*wacali* does not occur in isolation as a nominal.

#### 5.2.5. -ŋujan

One could compare -ŋu and -jan. Synchronically the form is probably unanalysable.

<i>luwati</i>	<i>'two'</i>	<i>luwati-ŋujan</i>	<i>'twice'</i>
<i>kurpai</i>	<i>'three'</i>	<i>kurpai-ŋujan</i>	<i>'three times'</i>
<i>malta</i>	<i>'many'</i>	<i>malta-ŋujan</i>	<i>'many times'</i>

- (5.11)    *ŋa-tu*    *nini*    *pati-ŋa*    *luwati-ŋujan*    *a-ni*    *ini-ka*  
*I-erg*    *you*    *tell-past*    *two-times*    *comp-you*    *remain-∅*  
*'I told you twice to stop (there)'.*

#### 5.2.6. -ŋcir NOMINALISER

-ŋcir is used to form nouns from verbs. It is fully productive but there are some ready made derivations that need to be recorded in the lexicon.

<i>kanima</i>	<i>'to tie'</i>	<i>kanimajŋcir</i>	<i>'policeman'</i>
<i>ica</i>	<i>'to bite'</i>	<i>icajŋcir</i>	<i>'a "biter"'</i>

(usu.applied to insects or insect-like creatures that bite)

- (5.12)    *tuŋumpiri*    *caa-ka*    *arkunaan*    *la-ji-ŋcir*  
*bad*    *here-∅*    *savage*    *kill-a/p-nom*  
*'He's bad, a savage killer'.*

(5.13) kuu-ja    pujur-puni-nti-ji-cir  
 water-dat hot-tr-with-a/p-nom

'A copper (boiler)(thing with which one makes water hot)'.  
 In all the available examples, the anti-passive is used. In principle one would expect the possibility of using -ncir to form 'patient nouns' as opposed to agent nouns cf. la-pin 'one who is hit' and la-ji-pin 'one who hits'. On the nature of things 'patient nouns' would be unusual.

#### 5.2.7. NUMBER MARKING WITH NOMINALS

There is no singular marker other than the free form ajar but nara 'another' is used like a stem-forming suffix:

pi!api!a-nara-ji 'with the other child', pi!api!a-nara-ji...  
 pi!api!a-nara-ji 'with one child... with the other child'.

##### 5.2.7.1. -wati Dual

-wati marks the dual of nominals. It is common with kinship nouns and it is part of the system for forming the dual of the demonstratives; with other nominals it is rarely used.

juru	'man'	juruwati	'two men'
pupi	'mother's brother'	pupiwati	'two brothers of mother'
caa	'this'	caa-wati-kaja	'these two'
naa	'this'	naa-wati-kaja	'these two'
paa	'that'	paa-wati-kaja	'those two'

The root wati also occurs in watina 'together, both', and possibly in Au(w)ati 'two'.

Note that when wati is used with kinship nouns, it cannot refer to two members of a reciprocal pair. For instance, ego calls his mother's mother mucu and she calls him mucu, but the pair made up of ego and his mother's mother is mucuwaancir. wati can refer to two sisters, two brothers, two of mother's brothers, two of father's brothers, etc. See also under kinship, §5.2.7.3.

##### 5.2.7.2. -mia Plural

-mia, like -wati is common with kinship nouns, is part of the system for forming the plural of demonstratives, and is used only rarely with other nominals.

juru	'man'	jurumia	'men'
pupi	'mother's brother'	pupimia	'mother's brothers'
caa		caa-mia-kaja	'these'
naa		naa-mia-kaja	'these'



paa		paa-mia-kaja	'those'
kuļa	'father'	kuļamia	'those ego calls father'

With kinship nouns -mia refers to a number of brothers, sisters, mother's brothers, etc. or to a number of people that one calls by a particular term e.g. kuļamia 'fathers' refers to one's own father and father's brothers. However, like wati it cannot refer to reciprocally related groups like ego and his mother's brothers even though they may call one another by a common name, pupi. See also under kinship, §5.2.7.3.

### 5.2.7.3. Kinship Terminology and Related Morphology

'older sister'	pua	'father's mother'	papi(pi)
'older brother'	ļapu	'father's father'	ņaca(ci)
'younger sibling'	uņkulu	'man's children'	kunkuju
'mother'	maļu	'woman's children'	ņalu
'mother's sister'	maļu, upaci	'mother-in-law'	wapuļu
'mother's brother'	pupi	'cross-cousin'	muaņņu
'father'	kuļa	'wife'	kuņi
'father's brother'	kuļa, piļaļa	'husband'	jukuta
'father's sister'	ņucir	'spouse'	markutu
'mother's mother'	mucu(cu)	'great grandparent or 'great grandchild'	macara
'mother's father'	caci(ci)		

#### Notes

An older 'older sister' is distinguished from a younger 'older sister' by using jaun 'big' and katakuļu or kacakuļu 'little'. Similarly with other distinctions of relative age.

One calls one's mother's sister maļu i.e. 'mother', and one calls one's father's brother, kuļa i.e. 'father'. However, upaci and piļaļa also occur for mother's sister and father's brother respectively. I am not sure of exactly how and when they are used, but they are used in the following context. If one's mother wants to refer to one's mother's sister, she uses upaci, and similarly one's father referring to one's father's brother uses piļaļa, e.g. ļuntija piļaļaņa 'Take it to your father's brother'.

The bracketed syllables of mucu(cu) etc. appear only in the nominative. They are deleted before all suffixes.

#### Moieties and Sections

The Kalkatungu were divided into two moieties. Roth (1897:56) gives the names of the moieties as uļaru and maļara. I recorded uļaru and

parkaḷa, which are the names Roth records for Pitta-Pitta, Mayi-Thakurti, Mayi-Yapi, Wunumara and Guwa, i.e. for practically every other tribe in the area. Each moiety was divided into two sections as shown in the following diagram.

uḷaru	maḷara (parkaḷa?)
paḷiṅu	marinaṅu
kaṅkilaṅu*	ḷunpuyunṅu

(\*Roth gives this form. I have recorded kaṅilaṅu)

This system of moieties and sections ('skins') operated with respect to the marriage system as follows. One had to choose a marriage partner from the opposite moiety but from the same generation, i.e. from the section of the same row in the diagram. A child belonged to the same moiety as his mother but to the section of the other generation. If a paḷiṅu man married a marinaṅu woman, their children were ḷunpuyunṅu. If a ḷunpuyunṅu boy married a kaṅkilaṅu girl, the children would be paḷiṅu, but if a ḷunpuyunṅu girl married a kaṅkilaṅu boy, their children would be marinaṅu.

This system operates not only in terms of a division into moieties but also in terms of a division into alternate generations. One is in the opposite generation to one's parents and to one's children but in the same generation as one's grandparents and grandchildren. The terms mucucu, cacici, papipi and ṅacaci all reflect this split into alternate generations. They are reciprocal terms by which ego refers to and addresses his grandparents and is referred to and addressed by his grandparents, and they are also used by ego to refer to and address his grandchildren who in turn use the same terms to refer to and address ego. Thus the meaning of each of these four terms might be specified as follows:

mucucu	'mother's mother' 'a woman's daughter's child'
cacici	'mother's father' 'a man's daughter's child'
papipi	'father's mother' 'a woman's son's child'
ṅacaci	'father's father' 'a man's son's child'

The split into alternate generations is also reflected in the use of the suffix -wancir which can be added to any of the four terms given above to indicate a pair of persons who are mucucu to one another, etc.

These four terms with the suffix *-wancir* appear in the following forms,

mucuwancir  
 cacuwancir  
 papuwancir  
 ḡacuwancir

mucuwancir would refer to ego and his or her mother's mother or a female ego and her daughter's child and so on with the other three terms.

The suffix *-wati* is used for two persons holding the same relationship. Thus *puawati* is *'two older sisters'* and *pupiwati* means *'two of mother's brothers'* and *maḡuwati* means *'two mothers'*. The kinship system is classificatory and the term *maḡu* can refer not only to one's *'blood mother'* but also to *'one's mother's sister'*, etc.

The suffix *-mia* is used for more than two persons holding the same relationship. Thus *ḡucirmia* is *'all my auntie'* i.e. more than two of my father's sisters.

There is a special term for two persons who are related by a male descent line and another term for those not so related. Thus the term *julpaḡa* can refer to *'father and child'*, *'father's father and grand-child'*, *'brother and sister'*, *'father and father's brother or sister'* and so on. The term *kuniḡkala* is used for two persons who are not so related i.e. *'mother and child'*, *'mother's father and child'*, *'mother's mother and child'*, and so on. These terms have reduplicated forms to indicate more than two people so related. *kunikuniḡkala* can be used to refer to *'a mother and two children'*, or to *'mother's brother plus mother's sister plus ego'*, etc. The reduplicated form of *julpaḡa* is *julpajapaḡa* and it could refer to *'ego and his or her father and father's brother or sister'*, or to *'ego and father and father's father'*, or to *'ego and two or more of his children'*, etc.

The suffix *-apci* (see §2.8. for the morphophonemics) is used with kinship terms to indicate that the referent is possessed by a third person.

pupiḡpci	<i>'his or her mother's brother'</i>
kujaapci	<i>'his or her father'</i>
maḡuapci	<i>'his or her mother'</i>

#### Inflection

Kinship nouns ending in vowels decline like non-singular pronouns. Kinship terms ending in consonants like consonant-stem nouns. *kunkuju*

'man's child' takes an ergative in -|u. kuniŋkala and julpaŋa decline regularly.

#### Examples in Sentences

- (5.14) caa |ina iŋka julpajapaŋa kunkuju-uŋci-jana  
 here they go child -his -too  
 'There they go, that man and his kids too'.
- (5.15) ŋata-ji |uku |aji-ŋa kunikuniŋkala-|u  
 we-erg dog hit-past -erg  
 'We hit the dog, my daughters and I' (woman speaking)
- However, there are also cases like the following with no agreement,
- (5.16) ŋa|i-ji caa kuniŋkala(j)ana |aji caa |uku  
 we-erg here -and hit here dog  
 'We two, my mother and I, hit the dog'.
- (5.17) ŋa-ci papi-wati wani-muju  
 me-dat son's:kids-dual play-dual  
 'My (woman speaking) son's kids are playing'.
- (5.18) ŋa|u-uŋci ma|u-uŋci-ŋu ini  
 dau -her mother-her-loc be  
 'The daughter is with her mother'.

### 5.3. VERBAL MORPHOLOGY

#### 5.3.1. -puni TRANSITIVISER

-puni is used to form transitive verbs from nouns and adverbs. It seems to be fully productive and can be used with any noun. The following examples recur and perhaps should be listed in the lexicon, particularly those where the meaning is not exactly derivable.

I have glossed puni as "tr" for transitiviser.

pil ti	'soft'	pil tipuni	'to mash, to squash, to smash, to cut into small pieces'
jarka	'far'	jarkapuni	'to put at a distance'
kaki-jan	'wounded, sore'	kakijanpuni	'to wound, to make sore'

- (5.20) maṛapai-tu ŋai ɭaji kaki-jan-puniji-ŋi  
 woman-erg me hit sore-con-tr-me

'The woman hit me and made me sore (or 'wounded me').

### 5.3.2. -ma VERBALISER

-ma is used to form verbs mostly transitive verbs. It is not a productive suffix and it is not possible to describe the classes of stems with which it could be used because some of the stems do not occur in isolation, but it seems to occur with nominal and verbal stems (see below):

rumpi	'to fear'	rumpima	'to frighten'
kani	'knot'	kanima	'to tie'
		ŋaima	'to follow, to chase'
		ŋaɲama	'to look for, to find'
		ŋulurma	'to catch hold of'
aɲa	'mouth'	aɲama	'to put a hole in'
ɭu-ti	'to break' (intrans)	ɭu-ma	'to break' (intrans)
miŋaŋara	'whatchamacallit'	miŋaŋarama	'to "whatchamacallit" (trans)

It also seems to appear in the formation of some intransitive verbs e.g. icama 'to laugh' (< ica 'to bite') pakapakama 'to hurry'.

### 5.3.3. -ɭati INTRANSITIVISER

(-ati with consonant stems)

-ɭati is used to form intransitive verbs from nouns and adverbs. It seems to be fully productive and can be used with any noun. It often has an inchoative sense.

maɭa	'many, mob'	maɭaɭati	'to become numerous'
mimi-jan	'having breasts'	mimijanati	'to develop breasts'
kupaŋuru	'old man'	kupaŋuruɭati	'to become an old man'
jarka	'far'	jarkaɭati	'to be at a distance'
piriŋa	'up, above'	piriŋaɭati	'to grow up'
pujur	'hot'	pujurati	'become hot'
ɭail	'hard'	ɭailati	'become hard'
jaun	'big'	jaunati	'become big, grow big'

Note also miɭi-ɭati (lit. 'become eyes') meaning 'to be born', maɭi piɭi-ɭati (lit. 'tongue become soft') meaning 'to be dumb'.

- (5.21) ŋa-tu kapir piɭi-puniji a-i piɭi-ɭati  
 I-erg grass soft-tr comp-it soft-intr

'I crushed the grass (seeds) and it became soft'.

## 5.3.4. -nta INTRANSITIVISER

-nta is of infrequent occurrence and seems to be restricted. It has been found only with the following stems where it forms verbs from nouns.

uʎci	'blood'	uʎcinta	'to bleed'
aŋʎa	'mouth'	aŋʎanta	'to open the mouth'
unu	'faeces'	ununta	'to defecate'
kila	'crack, split'	kilanta	'to crack, to split'

(5.22) paʎa kila-nta-ntiji (re-nti see §5.3.6.)  
*mud crack-intr-*  
*'The mud cracked'.*

(5.23) piʎa-piʎa maʎapai-ʎu ʎaʎi-ŋa a-i uʎci-nta  
*child woman-erg hit-past comp-he blood-intr*  
*'The woman hit the child and he bled'.*

(5.24) uʎci-nta caa uʎci caa kaanta  
*uʎcinta here blood here flow*  
*'"Uʎcinta" means blood flow'.*

## 5.3.5. -ti REFLEXIVE AND RECIPROCAL

-ti indicates both the reflexive and reciprocal. Normally the presence of a singular actor indicates the reflexive and a plural actor the reciprocal. A word muŋʎupir may be added to specify reciprocity if necessary. The reflexive/reciprocal verbs are intransitive. They can be derived only from transitive verbs and in those cases where one requires a reflexive or reciprocal form of an intransitive verb (e.g. ŋkuma 'to look for') the verb must first be transitivised (see §5.3.7.) before ti can be added.

(5.25) makaʎi ŋai ʎua-ti-na  
*hand I cut-re-past*  
*'I cut my hand'.*

(5.26) pa-atikaja macumpa-ka ʎa-ti ʎapaŋʎu-ʎu  
*that-dual kangaroo-ø hit-re foot-erg*  
*'Those two kangaroos are kicking one another'.*

(5.27) api-ti-muju ca-atikaja  
*give-re-they:2 this-dual*  
*'These two gave one another things'.*

(5.28) pipci-ti-muju muŋʎupir  
*scratch-re-they:2 one another*  
*'They're scratching one another'.*

The intransitive verb for 'break' is *ɬu-ti* and the transitive 'break' is *ɬuma* (where *ma* is a non-productive causative or transitiviser).

- (5.29) *ɬu-ti-na            ɲaa    ɲa-ci    kaunu*  
*break-re-past here me-dat dress*  
*'My dress tore'.*

The normal productive means of transitivising intransitive verbs for the purposes of the reflexive/reciprocal is to use *-ɲcama* (see §5.3.7.).

### 5.3.6. *-nti* TRANSITIVISER

Some transitive verbs take an allomorph *-manti* suffixed to the *-ji* form of the stem e.g. *ɬajimanti* 'hit', *ɬujimanti* 'cook, burn'. I have not been able to discover the reason for this.

*-nti* is used to perform a number of related functions. First of all, it is used to form transitive verbs from intransitive ones:

#### intransitive

<i>aɾa</i>	'enter'	<i>aɾanti</i>	'insert'
<i>ɲuji</i>	'fall'	<i>ɲujinti</i>	'to knock down, to push over'
<i>pia</i>	'go down'	<i>pianti</i>	'to take something down (from a high place)'
<i>wajara</i>	'come out of, emerge'	<i>wajaranti</i>	'to wake someone up'
<i>juu</i>	'climb on'	<i>juunti</i>	'to climb, to mount (a horse)'
<i>wani</i>	'to play'	<i>waninti</i>	'to play with something, to play (a part in a corroboree)'

- (5.30) *piɬa-piɬa caa    ɬuɲa-na. wajara-ntiji    ɲai wamiɬa-jan*  
*child    here cry-past wake:up-tr    me sleep-con*  
*'The child cried. He woke me up'.*

In the case of *wajaranti* the P of the derived transitive corresponds to the  $S_1$  of the intransitive stem. This is the usual case. Note, however, that with a verb like *juu*, the effect of adding *-nti* is to derive a transitive verb in which A corresponds to  $S_1$ .

*-nti* may also be used to indicate that an INSTRUMENTAL, LOCATIVE or CAUSAL actant is being expressed as P (i.e. nominative, or, if the anti-passive is being used, the dative). *-nti* commonly occurs in this function in the favourite construction where the INSTRUMENTAL, LOCATIVE or CAUSAL actant is anaphorically deleted.

## Examples of INSTRUMENTAL

It is rare to find *-nti* used for INSTRUMENTAL in independent clauses, but it is common in describing the action of killing a snake by cracking it against something.

- (5.31a) *marapai-tu tuar laji-manti kunka-pia*  
*woman-erg snake hit-with tree-loc*  
*'The woman cracked the snake against the tree (hit with the snake).'*

It has also been observed in the following (compare (5.33) below),

- (5.31b) *ntia na-tu maa mani-ntiji*  
*money I-erg food get-with*  
*'I got food with the money'.*  
*'I spent the money on food'.*

However, it is common to find it in subordinate clauses as in (5.32) and (5.33).

- (5.32) *kankari caa awa-ŋi ati-ŋci laa piŋci-nti-ji*  
*knife here give-me meat-dat comp:I cut-with-a/p*  
*'Give me the knife to cut the meat with'.*
- (5.33) *maa-ci a-ŋi-awa laa mani-nti-ji*  
*food-dat comp-me-give comp:I get-with-a/p*  
*'(I want you to) give it (sc. money) to me to get food with'.*  
*(a-ŋi-awa becomes aŋawa at normal tempo).*  
*-nti is also common in descriptions of tools.*
- (5.34) *kampungu caa ŋaipu tua-nti-ji-caja*  
*kampungu here knife cut-with-a/p-purposive*  
*'A "kampungu" is a knife for cutting things with'.*

## LOCATIVE

Almost all the examples available occur in subordinate clauses. (5.36) is included to illustrate that the locative is used for *'to sleep with someone'*.

- (5.35a) *tuku nuu kulapuru-ti*  
*dog lie blanket-loc*  
*'The dog lay on the blanket'.*
- (5.35b) *tuku nu-ntiji kulapuru*  
*dog-erg lie-on blanket*  
*'The dog lay on the blanket'.*
- (5.36a) *marapai iŋka jani-pia a-i nuu*  
*woman go w:man-loc comp-she lie*  
*'The woman is going to sleep with the white man'.*



- (5.36b) ira-iraci ŋka-ja kutu cipa-aŋa jaŋi-iŋa a-ina  
*girls send-imp you (pl) this-all white-all comp-they*  
 nu-nti-ji  
*lie-with-a/p*  
 'Send the girls to the white man to lie with him'.
- (5.37) caa kajir ŋa-ɬu itintiji a-i ŋu-nti ɬuku-ju  
*here grass I-erg bring comp-he lie-on dog-erg*  
 'I brought the grass for the dog to lie on'.
- (5.38) ŋa-ɬu caa ŋapa ŋɬia ŋuu ŋa-nti  
*I-erg here saw stone rel stand-on*  
 'I saw the stone he stood on'.

## CAUSAL

- (5.39) laji-manti caa maŋapai cipa-ji iti-ji  
*hit-because:of here woman this-erg man-erg*  
 'The man hit (him) because of the woman'.
- (5.40) nini panticamati-ŋa a-kin laji-manti  
*you tell:on-past comp-you hit-because:of*  
 'You "told on" (i.e. informed) so he would hit him over you'.

A few examples similar to (5.40) occur. The reference is to a woman telling her husband that another man has made amorous advances so that the husband then hits the other man 'because of' (CAUSAL) the woman, 'on account of' the woman. Note that the CAUSAL actant in (5.40) is expressed by the P form of the bound pronoun. See discussion in §1.6.

The third function of -nti is to mark verbs which have an inanimate AGENT or in one or two examples an inanimate INTRANSITIVE SUBJECT.

- (5.41) ŋɬia-ku ɬuar ntati-ntiji  
*stone-erg snake crush-*  
 'The stone crushed the snake'.
- (5.42) kuntu paɬku ɬuna-nti  
*not slow run-*  
 'It (sc. car) goes real fast'.

-nti is not used for every instance of an inanimate AGENT but there are a number of examples similar to (5.41).

## 5.3.7. -ŋcama TRANSITIVISER

-ŋcama (-cama with stems containing a nasal-stop cluster) is suffixed to the verb to indicate that an underlying DATIVE is being expressed as P.

-ŋcama can be analysed (as -ŋca as in -ŋcaaja, -ŋcaani and -ŋcaŋu) plus ma. The identification of this ma with the ma that occurs as a causative in ɾumpima 'to frighten' is supported by the fact that in both

instances *ma* takes an irregular imperative stem and anti-passive form *-mi*. However, this identification seems to be of little if any significance in the grammar and I will treat *-pcama* as an unanalysable element, glossing it as *'-tr'* for transitiviser.

In the first examples to be considered, *-pcama* in effect transitivises an intransitive verb so that it can be marked for reflexive/reciprocal, a marking which detransitivises the verb. Consider first of all the following,

- (5.43) *n̄aa-ka* *ʃuku* *n̄anti-cama-ti*  
*here-ø* *dog* *bark-tr-reciprocal*  
*'The dogs are barking at one another'.*

Here we have an intransitive verb that takes the dative or the locative. *-(n)cama* is used to advance this complement to P. This intermediate structure then contains a P coreferential with A. This reflexive/reciprocal situation is expressed by deleting P and marking the verb with *-ti*. The resulting sentence is intransitive.

In the next example, *-(n)cama* is used to transitivise a verb that takes its complement in the dative (*ʃuŋa n̄arpaaja* *'cry for someone'*).

- (5.44) *ʃuŋa-n̄iti-cama-ti* *maʃaŋa*  
*cry-plur-tr-re* *in great numbers*  
*'They are all crying for one another'.*

Similarly in the next example.

- (5.45) *kuntu paʃku* *ʃuni-ncanu,* *api-ncama-ti-canu*  
*not slow run-habit, sing-tr-re-habit*  
*'He runs fast (because) he sings himself'.*

In the following examples *-pcama* is used to express what would otherwise be expressed in the dative as a P in the nominative. Each example is paired with a corresponding sentence without *-pcama*.

- (5.46a) *cipa-ji* *n̄auʃu* *n̄itaji* *ŋa-ci* *maa* *n̄uŋu*  
*this-erg kid:erg steal me-dat food hence*  
*'This kid stole my tucker from here'.*

- (5.46b) *cipa-ji* *ŋai* *n̄auʃu* *n̄iʃa-ncamaji* *maa* *n̄uŋu*  
*this-erg me child-erg steal-tr food hence*  
*'This kid stole my tucker from here'.*

- (5.47a) *ŋa-ci ŋaɭu-ju kunti kari ŋa-ci*  
*me-dat dau-erg house clean me-dat*  
*'My daughter cleaned the house for me'.*
- (5.47b) *ŋa-ci ŋaɭu-ju ŋai kari-ŋcamaji kunti*  
*me-dat dau-erg me clean-tr house*  
*'My daughter cleaned the house for me'.*

In the next example the *-ŋcama* construction is used within the favourite construction. Note that the P bound pronoun for first person refers to the underlying DATIVE.

- (5.48) *ŋa-ɬu pati-ŋa ŋa-ci ɬapu ucan-ku a-ŋi iŋci-cami*  
*I-erg tell-past me-dat bro wood-dat comp-me chop-tr*  
*'I told my older brother to chop me some wood'.*  
 (-(ŋ)cami is the normal non-anti-passive of -(ŋ)cama)

The following example of *-ŋcama* is fairly typical, in fact *-ŋcama* is particularly common with *ŋiɬa* 'to steal'. The function of *ŋcama* seems to be to allow what would normally be a DATIVE to be expressed as a P. This P can then play its part in the co-reference rules. In (5.49) the person stolen from comes to be expressed potentially as P and can then be omitted from the second clause under co-reference with *juru* in the first clause. *-ŋcama* allows recovery of the underlying syntactic case relation and hence semantic role of the deleted actant. Note that English has a verb 'rob' as well as 'steal'. 'Rob' allows the victim to be expressed as P. 'Rob', of course, is a lexical form that allows different syntactic arrangements in the expression of 'theft sentences'. *-ŋcama* is a morpho-syntactic device not confined to 'theft sentences'.

- (5.49) *caa-ka juru arkunaan-ati ŋa-ɬu ŋiɬa-ŋcama-cin*  
*this-ø man angry-intr I-erg steal-tr-participle*  
*'This man got wild because I robbed him'.*

The final example illustrates the use of *-ŋcama* with the three-place verb *ŋi* 'to give'. Note that it enables the possessor/beneficiary to be expressed as P. Unfortunately I do not have an example with an overt RECIPIENT.

- (5.50) *maɾapai-ɬu ɬuku ŋi-ŋcamaji ati*  
*woman-erg dog give-tr meat*  
*'The woman gave him meat for the dog'.*

## 5.3.8. -n̄iti VERB PLURALISER

-n̄iti is quite rare. I have glossed it as plural, but that may not be accurate; it may indicate mutual activity or co-operation or the like.

- (5.51) !uŋa-n̄iti-caŋu ma!tana  
cry-plur-habit mob-adv  
'They all cry together'.
- (5.52) i!i caa !una, ma!ta iŋka-!iti-man̄i, ati-ŋci ŋkumaji  
ant here run mob go-plur-imperf meat-dat seek  
'There are ants running around here, a lot of them, going looking for meat'.

## 5.3.9. -ŋcaani CONTINUING

-ŋcaani is of very low frequency except with the stem ŋu- 'to lie'. It seems to indicate imperfect aspect, ongoing activity or the like.

- (5.53) ŋa!u ŋapa macumpa u!i-ŋcaani-cin  
I-erg saw kangaroo die-contin-participle  
'I saw the kangaroo dying (but I didn't have a weapon to put it out of its misery)'.
- (5.54) kuntu kupaŋuru ini , paa ŋu!i iŋka-caani  
not old man be:present that still come-contin  
'The old man is not here, he (is there) still coming'.

## 5.3.10.1. -ŋ!u Motion away from the speaker

This has been observed in the imperative only.

- (5.55) !una-ji-ŋ!u-tu  
run-imp-away-you plural  
'You mob run away!'

## 5.3.10.2. -u Motion towards the speaker

This has been observed in the imperative only.

- (5.56) iŋka-ja-u ŋa-cina  
go-imp-hither me-allative  
'Come here to me!'

## 5.4. ADVERB MORPHOLOGY

## 5.4.1. ADVERB INFLECTION

Adverbs are uninflected except that the stem araka- appears with -ŋi ('to'), -!i ('at') and -ŋu ('from'),

arakaṅi	'where to'
arakaḷi	'where at'
arakaṅu	'where from'

-ṅu ('from') also occurs in

jarka	'far'	jarkaṅu	'from afar'
piriṅa	'on top, aloft'	piriṅaṅu	'from above'

A number of adverbs can be observed to carry inflections e.g. waṭaṅka 'at night' (cf. waṭamakal 'dark', waṭaṅaṅa 'tomorrow'), but I doubt if this is of any synchronic significance. They cannot be considered defective nouns as they cannot be qualified. arkuntu 'savagely, belligerently' appears to bear the ergative/instrumental -tu but contrasts with the nominal arkunaantu 'belligerent' in the ergative/instrumental (for -aan, see §5.2.1.).

#### 5.4.2. -ṅa ADVERB FORMING

-ṅa is used to form adverbs.

ajar	'one'	ajaraṅa	'only, singly'
-		watiṅa	'both'
-		cajaṅa	'once, before, formerly'
maḷṭa	'mob'	maḷṭaṅa	'in great numbers'
iḷaṅu	'new'	iḷaṅuṅa	'soon'

wati does not occur alone but occurs in caawatikaja ('these two') etc. caja appears in cajaṅu ('old, former').

There are numerous examples of -ṅa scattered through the present work, but where the stem does not occur as a word I have not separated -ṅa off by a hyphen nor have I glossed it.

#### 5.4.3. -minṅu

I have taken -minṅu to be adverb-forming in light of examples such as (5.57) below. Note, however, that the adverb-forming ṅa may occur with -minṅu. -minṅu is glossed by the English 'as'.

wampa	'girl'	wampa-minṅu	'as a girl, when she was a girl'
kalpin	'young man'	kalpin-minṅu	'as a young man, when he was a young man'

- (5.57) kalpin-minṅu ṅa-iu iuar laji-pcaṅu maḷṭa  
 young man-as I-erg snake kill-habit mob  
 'As a young man, I used to kill a lot of snakes'.

- (5.58) juru-minngu-na malta juru ini-pin niti inka-cin  
 man-as-adv mob man remain-part here go-part  
 kiti-kiti ucan-ku-wa-ka a-ina appa-ji  
 crowd firewood-dat-lig- $\emptyset$  comp-they collect-a/p  
 'When there were Aborigines, a lot of Aborigines, living  
 here they would go, crowds of them, gathering firewood'.
- (5.59) kataku!u-minngu-na, na-!u caa nana cajana  
 small-as-adv I-erg here saw formerly  
 'I saw it once, when I was little'.

### 5.5. REDUPLICATION

Stems exhibiting a reduplicated base are fairly common. In some cases the unreduplicated base does not occur.

Where it does occur, it is possible to see in the reduplication the sense of plurality (more than one of), intensity (more than the normal degree of) or a sense of repetition (more than one occurrence of).

I have written a hyphen between the reduplicated elements. This is to facilitate reading.

A few cases of partial reduplication have been noted, but there are not enough examples to allow any generalisations.

Note also the use of a ligative  $\wedge$  between vowels in the last two examples.

!una	'run'	!una-!una	'to run around'
jakapi	'to listen'	jakapi-jakapi	'to listen intently'
pujur	'hot'	pujur-pujur (or pupujur)	'very hot'
!uati	'two'	!uati-!uati	'four'
-		pi!a-pi!a	'baby'
kujiri	'boy'	kuji-kujiri	'boys'
wampa!ana	'incorrectly'	wampa-wampa!ana	'quite incorrectly'
napi	'see'	napi!api	'stare'
inka	'go'	inka- $\wedge$ -inka	'go repeatedly, go back and forth, walk around'
ipci	'chop'	ipci- $\wedge$ -ipci	'chop repeatedly'

### 5.6. COMPOUNDING

There are a number of examples of compounds of the type noun-plus-noun and noun-plus-verb. The apparent order 'modifier-head' in the first example is exceptional.

pi!i-ma!i	'soft' + 'tongue'	'soft' (of speech), 'dumb'
!un!al-putu	'moon' + 'stomach'	'crescent moon'
ku!u-wa!ara	'brains' + 'come out'	'to be angry'

mil̩i-puɽur-ati 'eyes' + 'good' + 'to open one's eyes'  
 intransitiviser  
 mil̩i-wakini 'eyes' + 'spin' 'to be intoxicated'  
 (also heard as mil̩awakini)

#### 5.7. -jana 'and', 'too' CO-ORDINATING CONJUNCTION

- (5.60) ɲata aɽi-li-pin maa-ci-ka ati-ɲci-jana-ka  
 we eat-a/p-part food-dat-∅ meat-dat-conj-∅  
 'We are eating food and meat'.
- (5.61) mal̩ana caa aɽi-li cipa-a ɲarkun-ku, aɲtamuru-tati  
 in mobs here eat-a/p this-dat wall-dat flock-intr  
 wakaɭa-jana kacapi-jana  
 crow-conj hawk-conj  
 'In great numbers they eat the wallaroo, they flock  
 together, both crows and hawks'.
- (5.62) ɲini aɽi-li-mi ati-ɲci?  
 M.M. you eat-a/p-fut meat-dat  
 'Are you going to eat meat?'
- B.B. maa-ci (maa = 'vegetable food' as opposed to ati 'meat')  
 food-dat  
 'Food'.
- M.M. ɲai-jana ɲiɽi maa-ci aɽi-li ati-ɲci-jana  
 me-conj here food-dat eat-a/p meat-dat-conj  
 'And I down here will eat food and meat too'.

#### 5.8. -wa, -ja LIGATIVES

-wa and -ja were described in 3.5.11. in relation to case marking and in 5.2.3. with reference to -ɲu.

-wa is also used between the dative allomorph -ku and the prosodic suffix -ka e.g. ucan-ku-wa-ka 'fire-dative-ligative-∅'. It may also occur following the dative allomorph -ku where nothing else follows, e.g. ucan-ku-wa. As far as I can see it is not of any syntactic significance. This final -wa could be a lenited allomorph of -pa (see §5.9.2.) but if it is, we would have to posit free variation between -pa and -wa.

#### 5.9. PROSODIC SUFFIXES

##### 5.9.1. -ka

-ka appears to have no function at the information level. It is difficult to say much about the principles determining when it is used. It is extremely common. It may be cliticised to any word. It is

common after disyllabic words, much more common than after longer words. Numerous examples are scattered through this book. They have been glossed as  $\emptyset$  as explained in the introductory note.

### 5.9.2. -pa

-pa appears to have no function at the information level. It occurs mainly in the speech of Lardie Moonlight, cliticised to a variety of words.

## 5.10. FREE FORM FUNCTION MORPHEMES

### 5.10.1. $\downarrow$ uu INTENSIVE PARTICLE

- (5.63) caa-ka  $\downarrow$ uu  $\eta$ antamaji caa curujan-ka kuntu  $\eta$ arpa- $\downarrow$ u-ka  
*here- $\emptyset$  int find here echidna- $\emptyset$  not other-erg- $\emptyset$*   
 caa  $\downarrow$ uu cipa-ji  
*here int this-erg*  
 'He found the echidna, no one else did. He found it himself'.
- (5.64)  $\downarrow$ iji-ka  $\downarrow$ uu-ka  $\eta$ ai  $\downarrow$ aji- $\eta$ i  
*3s:erg- $\emptyset$  int- $\emptyset$  me hit-me*  
 'He hit me'.  
 (also occurs as  $\downarrow$ iji  $\eta$ ai  $\downarrow$ uuka  $\downarrow$ ajini)

### 5.10.2. pa- DEFINITISER

The demonstrative pa- functions as a 'definitiser' particularly in correlation with a restrictive qualifying nominal or restrictive qualifying clause:

- (5.65) marapai- $\downarrow$ u caa pa-ji ulkuuri- $\downarrow$ u  $\downarrow$ aji  $\downarrow$ uar-ka  
*woman-erg here that-erg tall-erg kill snake*  
 'The tall woman killed the snake'.
- (5.66)  $\eta$ ai  $\eta$ kumaji pa-u jur-ku  $\eta$ uu  $\eta$ i $\downarrow$ a-ji- $\eta$ a  
*I seek that-dat man-dat rel steal-a/p-past*  
 $\eta$ a-ci-wa-ku maa-ci  
*me-dat-lig-dat food-dat*  
 'I'm looking for the man who stole my tucker'.

### 5.10.3. ini AUXILIARY VERB

The verb ini ('to be present, to remain') is used as a means of using tense, aspect and mood markers with nominals in equational clauses, the tense or aspect marker being suffixed to ini.

- (5.67) macumpa mil $\downarrow$ i mucupari ini- $\eta$ a  
*kangaroo eyes blind be-past*  
 'The kangaroo was blind'.



- (5.68)    ɲai    ini-mi    ati-iti,    jarika-jan-ati-mi  
           I    be-fut    meat-less    hungry-con-intr-fut  
           'I will be without any meat. I'll be hungry'.
- (5.69)    wii    ɲini    puɟura    ini-ka    ɲai    kia    ini-manɲi  
           query    you    good    be-ø    me    like    be-imperf  
           puɟura-ka?    puɟura    ini-ja    ɲai    kia  
           good-ø    good    be-imp    me    like  
           'Are you being good? Being good like me? Be good like me'.

#### 5.10.4.    paɲca    INTENSIVE VERB

paɲca corresponds to English 'very' in meaning. It is a verb but seems to occur only in parallel with a lexical verb with which it agrees in tense, aspect, mood, reflexiveness/reciprocalness and person/number marking.

- (5.70)    maɲu-tati    ɲai    makaɲi    watina,    kuntu    ɲulurmaji-mia  
           weak-intr    I    hand    both    not    hold-poss  
           paɲcaji-mia  
           intens-poss  
           'My hands are weak, I can't hold it (sc. microphone) tight'.

#### 5.10.5.    ɲuɲca,    ɲuɲcapuni    'to miss', 'to fail'

ɲuɲca appears as an intransitive verb meaning 'to have failed to do' or 'nearly to have done' the activity described by another verb of the same phrase or a verb that is understood from the context, linguistic or extra-linguistic. ɲuɲcapuni is the transitive equivalent.

- (5.71)    ɲai    caɲkaaɲi    ɲuɲca-ɲa    ɲuɲi-ɲa  
           I    here    fail-past    fall-past  
           'I nearly fell'(or 'I escaped (from) falling')
- (5.72)    ɲa-tu    caa    ɲuɲcapuniji    pukucur  
           I-erg    here    fail    mouse  
           'I nearly caught the mouse'(or 'I missed the mouse')

#### 5.10.6.    ɲampu    'completely'

ɲampu means something like 'completely'.

- (5.73)    juku    iɲka-ɲa    ɲampu    uɲaɲara-ti  
           spear    go-past    right    other:side-loc  
           'The spear went right through to the other side'.
- (5.74)    kuntu    ɲai    kuɟu-kuɟu    iti-mi    ɲaɲa    ɲampu    ɲai    kaanta  
           not    I    again    return-fut    hither    for:good    I    go  
           'I'll never come here again. I'm going for good'.

(5.75) nampu caa na-tu ati-ka piŋciji piŋtipuniŋi  
*all here I-erg meat-Ø cut break/smash*  
 'I cut the meat all up into pieces'.

(5.76) kaŋir-ka laa nampu maniji-na  
*grass-Ø now all burn-past*  
 'The grass all got burned'.

(also given as nampu caa laa kaŋirka manijina)

Note also nampu-tati ('to disappear'), nampu kaŋta-kaŋta ('back of head').

(5.77) kuntu caa-ka nampu-wa nuu caa ŋurku nu-ŋcaani miŋi  
*not this-Ø wholly-Ø lie here only lie-contin eyes*  
 'He's not really asleep. He's just pretending to be asleep'.

#### 5.10.7. uca 'just'

(5.78) caa pin-ti atika ŋujintiji mu-lu-ka uca arkun-ku-wa  
*here you-erg meat-Ø drop ground-loc-Ø just fight-dat-Ø*  
 'You dropped the meat on the ground just to cause trouble'.

(5.79) ŋai-ka uca iŋka-na ŋun-ku laa ŋani-ji  
*I-Ø just go- past you-dat comp:I see-a/p*  
 'I just came to see you'.

See also example (5.92).

#### 5.10.8. lamu 'might'

(5.80) aŋii-mi lamu  
*fall-fut might*  
 'It might rain'.

(5.81) tuŋumpiri naa-ka maa-ka waŋaci-ka, pin-ti lamu aŋi-mi  
*bad here-Ø food-Ø fruit-Ø you-erg might eat-fut*  
 'This fruit's not too good; you might eat it'.

(5.82) iŋa-ŋu-na caa-ka ciriku-tu laji, japacara-tati-mi lamu  
*now-adj-adv here-Ø bone-erg kill well-intrans-fut might*  
 'Blackfella bin catch 'im along bone. He might get all right'.  
 (iŋaŋu-na means 'recently')

(5.83) tuku lamu caa-ka waŋara-mi macumpa lamu  
*dog might here-Ø emerge-fut roo might*  
 'He might come out [reincarnated as] a dog or perhaps a kangaroo'.

#### 5.10.9. kuntu NEGATIVE

(5.84) kuntu na-tu ŋana caja-na-ka  
*not I-erg saw former-adv-Ø*  
 'I've never seen him before'.

- (5.85) cipa-ji kupaṅuru-ju caa patu-ma kujiri kuntu a-i  
*this-erg old man-erg here tell-pres boy not comp-he*  
 panti-ji  
*tell-a/p*  
*'The old man told the boy not to tell (anybody).'*

5.10.10. wanta NEGATIVE WITH IMPERATIVES ('don't')

- (5.86) wanta la-ja  
*don't hit-imp*  
*'Don't hit it'.*

5.10.11. miar 'very'

miar can be used to indicate emphasis as in the first example below or it can be used following a nominal to indicate the sense of 'very'.

- (5.87) ʔupu-ŋku kari-ja-ŋi miar  
*soap-erg wipe-imp-me emph*  
*'Wash me well with soap'.*
- (5.88.) ŋai kuntu ari-li-pcaṅu, ati-ka ʔail miar-ka  
*I not eat-a/p-habit meat-ø hard emph-ø*  
*'I don't eat (sc. galah), the meat's too tough'.*
- (5.89) jaun miar iṅka-mia  
*big emph go-poss*  
*'The "biggest" (sc. plane) might come'.*

5.10.12. kia 'like'

kia is a particle meaning 'that way' or 'this way'. Used after a noun phrase it corresponds to English 'like' in the sense of 'resemble', and it may be cliticised to a preceding nominal.

- (5.90) ŋai kia naa naur-ka  
*me like here child-ø*  
*'The child looks like me'.*
- (5.91) caa-ka muṅṅu-ka kula-anci kia  
*here-ø face-ø father-his like*  
*'He looks like his father'.*
- (5.92) nini-ka uca punpa-punpati kia-ka arkun-ku  
*you-ø just talk that:way-ø fight-dative*  
*'You're just talking like that to cause a fight'.*
- (5.93) kia ŋai iṅka (accompanied by pointing)  
*that way I go*  
*'I'm going that way'.*

## 5.10.13. kiau 'this way'

kiau (kia + ŋu) means 'this way', 'like this', 'thus' and 'equals':

(5.94) nata-ji kuntu uŋantiji kiau-ka ucan kiakar  
 we-erg not possess such-Ø fire make  
 'We didn't have that kind of thing that makes fire'.  
 (Sentence refers to 'matches'.)

(5.95) kiau, li-ja ŋai.....  
 like this leave-imp me  
 (Offering an example to explain a point) 'Like this, leave me'.

(5.96) kulŋuur kiau makaŋi- ajar-ku aŋii-ŋcaŋu  
 broŋga hand one-dat lay-habitual  
 'The broŋga lays as many as five eggs'.  
 (This sentence was given among descriptions of the habits of various birds. kiau corresponds to a pause that follows a topic as in 'as for X, he.....' constructions.)

## 5.10.14. puju 'if'

puju ('if') usually occurs as second word in a -ŋin clause,

(5.97) kanimajincir puju iŋka-cin, ŋai unuani-mia  
 policeman if come-part I rejoice-poss  
 'If the policeman comes, I might be happy'.

(5.98) kuntu puju la-ŋin caa ŋa-ŋu ŋini cipa-ji ica-mia  
 not if kill-part here I-erg you this-erg bite-poss  
 'If I hadn't killed it, it would have bitten you'.

## 5.10.15. muŋu 'together'

muŋu ('a heap, pile') occurs in contexts suggesting that besides its lexical meaning it has the function of meaning 'collectively, together':

(5.99) caa-ka juku ŋali-i muŋu-u  
 here-Ø spear we-dat together-dat  
 'The spear belongs to both of us'.

## 5.11. ŋu RELATIVE PARTICLE

ŋu is a relative particle. It is of infrequent occurrence and it is difficult to produce examples of it by direct elicitation. The range of examples available is unsatisfactory and it is not possible to discuss the syntax of ŋu constructions fully.

There are some relatively straightforward examples in which ŋu appears to be a relative pronoun,

- (5.100) *naʔaʔati* *ɲuu* *ʔu-ji-na* (ɲuu = ɲu augmented)  
*sit* rel *burn-a/p-past*  
*'The one who burned him is sitting down'.*
- (5.101) *na-ʔu* *caa* *juru* *naŋamaji* *na-ci-wa-ku* *ʔuku-u*  
*I-erg* *here* *man* *find* *me-dat-lig-dat* *dog-dat*  
*ɲuu* *la-ji-na*  
 rel *hit-a/p-past*  
*'I found the man who hit my dog'.*

Where A of the ɲu clause is co-referential with an actant in the governing clause, the anti-passive is used in the ɲu clause. There are no examples available in which A of a ɲu clause is co-referential with an A.

There are some examples in which the actant marked by the relative is the P of the relative clause and the relative appears as ɲuna,

- (5.102) *kaanta-na* *pakai-ka* *kalpuru-ʔinu* *ɲin-ti* *ɲuna* *ɲana*  
*leave-past* *that-ø* *Boulia-abl* *you-erg* *rel-acc* *saw*  
*'The one whom you saw left Boulia'.*
- (5.103) *ɲai* *uʔantiji-na* *pa-u* *naur-ku* *ɲin-ti* *ɲuna* *laʔi*  
*I* *look after-past* *that-dat* *child-dat* *you-erg* *rel-acc* *hit*  
*'I've been looking after that kid you belted'.*

I have glossed ɲu-na as relative + accusative. If this interpretation is correct then this would be the only appearance of the accusative marker anywhere in the language. -na is an accusative marker in many Australian languages and so its appearance as an accusative in Kalkatungu is not too surprising.

Attempts to elicit examples of the relative in other case relations have failed. For example, the sentence *'I saw the rock he jumped from'* was translated as,

- (5.104) *na-ʔu* *caa* *ɲana* *ŋʔia* *ɲuu* *cunpa-na* *pa-ɲu* *ŋʔia-piangu*  
*I-erg* *here* *saw* *rock* *which* *jump-past* *that-abl* *rock-abl*  
 (lit.: *'I saw the rock which he jumped from that rock'.*)

and the sentence *'I didn't see what he was frightened of'* was translated as,

- (5.105) *kuntu* *na-ʔu* *ɲana* *ɲuu* *ɽumpi-ka*  
*not* *I-erg* *saw* *rel* *fear-ø*  
*'I didn't see what he was frightened of'.*

Since the complement of the verb ɽumpi is always marked by the causal case, one would have expected some marking on ɲu. These examples may be correct, but I suspect them, as they are contrary to the genius of the language, which normally makes case relations explicit.

Attempts to elicit examples of *ɲu* representing an actant in a LOCATIVE relation produced.

- (5.106) *ɲa-ɲu ɲaɲa ɲɲia ɲuu ɲa-nti*  
 I-erg saw rock rel stand-on  
 'I saw the rock he stood on'.

This appears to be partly genuine in that *-nti* is used to express the LOCATIVE via the verb, but this should produce a transitive verb *ɲanti* 'to stand on' and I would have expected *-ɲa* suffixed to *ɲu-*.

There are also examples where *ɲu* is used with a verb suffixed by *-mi* (future) or *-ɲa*(past) plus *-ɲi* (locative). For example,

- (5.107) *ɲa-ɲu waterbag kuu-ɲku puɲamaanti ɲu-wa iɲka-mi-ɲi*  
 I-erg waterbag water-erg fill rel-ø go-fut-loc  
 'I filled the waterbag when I was leaving'.

- (5.108) *caa ɲa-ɲu iɲɲakaipuniji kankaɲi-ka ɲai ɲuu*  
 here I-erg forget knife-ø I rel  
*aɲi-li-ɲa-ɲi*  
 eat-a/p-past-loc  
 'I forgot the knife when I ate'.

- (5.109) *jarka-puni-ja ati ɲuu aal-mi-ɲi*  
 far-tr-imp meat rel put-fut-loc  
 'Move the meat away so that I can put it down'.

- (5.110) *ɲulurmi-ja caa piɲapija ɲaa minaɲara ɲuu*  
 grab-imp here child here thing rel  
*aal-mi-ɲi bandage waɲka-pia*  
 put-fut-loc shin-loc  
 'Grab the kid so I can put that thing, that bandage, on his leg'.

There are also examples where an adverb is added to express the notion of 'before' or 'after'.

- (5.111) *kuu caa ɲa-ɲu aɲa ɲampunɲuɲa ɲu-wa ɲa-mi-ɲi*  
 water here I-erg gave before rel-ø kill-fut-loc  
 'I gave him water before killing him'.
- (5.112) *caa ucan caa aɲɲaɲu-ja caɲkaaɲi maɲkana ɲuu ini-mi-ɲi*  
 here fire here light-imp here-loc later rel stop-fut-loc  
 'Light a fire here after we stop'.

This then leaves a residue of cases where we have *ɲuɲa* and the verb suffixed by *-mi + ɲi*. I present these below with glosses and the informants' translations.

- (5.113) *ɲai iɲka ɲuɲa ɲu-mi-ɲi*  
 I go rel lie-future-locative  
 'I go so you can lie down'.

- (5.114) *naika inka maṛa ḡḡa ḡu-ḡcaani-mi-ti*  
*I go now lie-contin-future-locative*  
*'I'm going till he laying down'.*
- (5.115) *kari-ti-ja muḡtu-u ḡḡa inka-mi-ti*  
*wash-re-imp face-dat go-future-locative*  
*'Wash your face before you go'.*
- (5.116) *ḡaka nin-ti caa piḷa-piḷa uḡantiji maa-ci ḡḡa tuji-mi-ti*  
*why you-erg here child keep food-dat cook-fut-loc*  
*'Why do you have your kid with you while you are cooking the tucker?'*
- (5.117) *nini ḡḡa iti-mi-ti taun-kḡḡa paplikaur-kḡḡa kuḷu-kuḷu*  
*you return-fut-loc town-all hotel-all again*  
*ḡuu-ḡuu anaḡii (‘a-ni aḡii)*  
*writing comp:you:put down*  
*'When you go back to town, to the pub, you will write it down'.*

The sense of the *ḡḡa* clause in (5.113) clearly refers to 'before', in (5.116) to 'while', and in (5.117) to 'after'. As far as I can see *ḡḡa* in the 'time' clauses is not significantly different from *ḡu*. Whether *ḡu* or *ḡḡa* is used, the subordinate clause seems to refer to time 'before', 'when' or 'after'. It looks as if the notion of relative time is left to the context, but can be made explicit by the use of an adverb if necessary. Apparently the sense of 'in order to' is also within the ambit of *ḡu* clauses (see (5.113) ).

## 5.12. INTERROGATIVE SENTENCES

Most interrogative sentences contain an interrogative pronoun or adverb or verb. The interrogative word is almost always the first word in the sentence. The only interrogative sentences without an interrogative word are polar questions marked by rising intonation (see example (5.132) ).

Note that *ḡaka* may mean 'what?' or 'why?' or it may mark a polar question. *ḡakaja*, *ḡakajakuwa* ~ *ḡakaakuwa* (*ḡaka* + *ja* + *ku* + *wa*) *ḡakajan* (*ḡaka* + *jan*) seem to be synonymous all meaning 'why'. *ḡakaḡuḡu* may also express 'why?'

*ḡakaḡi*, the locative case of *ḡaka* expresses 'how?', not *ḡakaḡu* as one would expect.

- (5.118) *ḡani ipal? kali*  
*who name not know*  
*'What's his name? I don't know'.*
- (5.119) *ḡani tuḡa-mi ati-ḡci a-i mani-ji-ka?*  
*who run-fut meat-dat comp-he get-a/p-Ø*  
*'Who will run and get the meat?'*

- (5.120) nan-ku naa tuku?  
 who-dat here dog  
 'Whose dog is that?'
- (5.121) naka pini janaalu? jalanna, kalkatunu?  
 what you language Yalarnnga Kalkatungu  
 'What's your language? Yalarnnga or Kalkatungu?'
- (5.122) caa macumpa naka-ti nin-ti laji? jalpi-pia naa  
 here roo what-loc you-erg kill net-loc here  
 na-tu laji  
 I-erg kill  
 'How did you kill the kangaroo? I killed it in a net.'
- (5.123) nakajakuwa nin-ti laji caa jurunara-ka? li-ja!  
 why you-erg hit here man-other- $\emptyset$  leave-imp  
 'Why are you hitting this other man? Let him alone.'
- (5.124) naka naa nin-ti itintiji paŋta-paŋta na-cina  
 what here you-erg bring:back wood:adder me-all  
 'Why did you bring that wood adder back to me?'
- (5.125) naka-jan nin-ti caa juru-ka laji? puŋura naŋaŋati-pin  
 what-con you-erg here man- $\emptyset$  hit good sit-part  
 'Why did you hit this man?' 'He bin good.'
- (5.126) naka-tunu nin-ti mai-mi?  
 what-caus you-erg rub-fut  
 'Why are you going to massage him?'
- (5.127) naka-jan-ati-mina-n pini?  
 what-con-intr-imperf-you you  
 'What are you doing?'
- (5.128) naka-ja nin-ti tuntiji-ka na-ci marapai-ka?  
 what-dat you-erg take- $\emptyset$  me-dat woman- $\emptyset$   
 'Why did you take my wife?'
- (5.129) naka-jan-ati caa? tuku lamu caa-ka wata-mi  
 what-con-intr here dog might here emerge-fut  
 'What will he become? He might come out a dog (when he dies).'
- (5.130) naka-jan-puniji?  
 what-con-tr  
 'What is he doing?'
- (5.131) namigu pini ana? luati  
 how many you gave two  
 'How many did he give you? Two.'
- (5.132) nianu pini iti-mi? wataŋana  
 when you return-fut tomorrow  
 'When will you come back? Tomorrow.'

'Where (at)' is expressed by arakaŋi, 'where to' by arakaŋi and 'where from' by arakaŋu.



- (5.133) araka pakai cuṭu-ka kuu-u-ja-ṅu-ka  
 where that coolaman- $\emptyset$  water-dat-lig-adj- $\emptyset$   
 'Where's the coolaman to put the water in?' ('coolaman  
 belong water')
- (5.134) arakaṭi pini? ṅiṭi  
 where you here  
 'Where are you? Here'.
- (5.135) arakaṅi pini? kia-ka  
 where:to you this:way- $\emptyset$   
 'Where are you going? This way'.
- (5.136) kia pini (iṅka)? kia-ka  
 which:way you go this:way- $\emptyset$   
 'Which way are you going? This way'.
- (5.137) nakaṭicajan pin-ti laji-ka macumpa-ka? iṅciji ṅaa  
 how you-erg kill- $\emptyset$  kangaroo hit there  
 ṅa-ṭu ṅtia-ku (iṅci = 'to hit with a missile')  
 I-erg stone-erg  
 'How did you kill the kangaroo? I hit him with a stone'.

Polar interrogatives are expressed, (a) by using interrogative intonation, (b) with *wii* or *wili*, or (c) *naka*.

- (5.138) pin-ti a-ṅi-la? nakaakuwa pin-ti ṅai la-mi-ka?  
 you-erg comp-me-hit why you-erg me hit-future- $\emptyset$   
 'Are you going to hit me? Why are you going to hit me?'
- (5.139) wii pini puṭura ini?  
 query you good be  
 'Are you being good?'
- (5.140) wili pin-ti waku-ka ciaji-mpa-n?  
 query you-erg skin- $\emptyset$  take out/off-perf-you  
 'Have you taken the skin off?'

No significance appears to attach to the distinction between *wii* and *wili*; both occur with intransitive and transitive verbs for instance. *wii* may simply be *wili* with *l* deleted in accordance with the tendency to delete consonants between like vowels (see §2.13.).

### 5.13. INDEFINITES

The interrogatives are not used as indefinites as in some languages. *ṅarpa* is the indefinite 'some creature'. *ṅarpa* ... *ṅarpaṅara* may be used for '(the)one ... (the)other'. *miṅaṅara* is 'something'. *miṅaṅara* is also used in a way that corresponds to our use of terms like 'whatchamacallit' and there is a verb form *miṅaṅarama* 'to whatchamacallit'. *ṅarpa* and *miṅaṅara* decline like regular nouns.



## CHAPTER 6

### WORD ORDER AND THEMATIC STRUCTURE

#### 6.1. WORD ORDER IN THE SIMPLE SENTENCE

There is a good deal of variation in word order, but it seems that the most frequent patterns for intransitive and transitive sentences are:

(a) intransitive : S<sub>1</sub> V

(6.1) wampa caa iŋka  
girl here go  
'The girl goes'.

(b) transitive : A P V

(6.2) macumpa caa ŋai ŋaŋa  
kangaroo here me saw  
'The kangaroo saw me'.

However, the pattern A V P is fairly common too. Verbless sentences occur too of course:

(6.3) ŋini caa japi  
you here white man  
'You are a white man'.

Often the topic is set off from the comment by *caa* or *ŋaa* as in the examples above. *paa* may also be used but only if there is reference to a location relatively distant from the speaker, whereas *caa* and *naa* need not have any deictic function (see §3.2.4.).

(6.4) ŋarkun paa ʔuna ŋampuʔati  
wall there run disappear  
'The wallaroo is running away'.

*caa* and *ŋaa* seem to be used also as 'hesitation fillers'. For example, an informant in translating a difficult English sentence will often use *caa* or *ŋaa* in front of each group of words translated. They are also

used for prosodic effect. In the following example, for instance, the function of *caa* is to balance *kuntu* and more importantly to set off the second phonological phrase from the first.

- (6.5) *nan-ku n̄tia?*  
*who-dat money*  
*'Whose money is it?'*  
*kuntu na-ci-ka, caa jaŋi-i*  
*not me-dat-Ø here white man-dat*  
*'It's not mine, it's the white man's'.*

Adverbs and adverb-like noun phrases (e.g. locatives) tend to follow the S<sub>1</sub> V, A P V, A V P patterns listed above. Negatives and interrogatives, however, are virtually always in sentence-initial position.

- (6.6) *kuntu pin-ti ana puŋur-ka, pinti ana tuŋumpiri*  
*not you-erg gave good-Ø you-erg gave bad*  
*'You didn't give him good (food). You gave him bad (food)'.*

Locative phrases are often accompanied (preceding or following) by an adverb expressing a specific orientation:

- (6.7) *tuar n̄tia-pia pirina*  
*snake rock-loc on top*  
*'The snake is on the rock'.*

## 6.2. NOUN PHRASE

Within the noun phrase the modifier (determined semantically) normally follows the head:

- (6.8) *nini inka n̄tia-ana jaun-kuna*  
*you go mt-all big-all*  
*'You're going to the big mountain'.*

However, demonstratives and adnominal datives normally precede the head:

- (6.9) *na-tu nini cipa-ji ati-n̄tu ipci-mi*  
*I-erg you this-erg meat-erg hit-fut*  
*'I'll hit you with this meat'.*
- (6.10) *na-ci papipi minanaramaji-ncanu kariji-ncanu muŋu-u*  
*me-dat f's m whatchamacallit-habit clean-habit camp-dat*  
*'My granny whatchamacallits...eh...cleans the camp'.*

It is common, particularly with ergative noun phrases, to split the constituents, often by putting one (or more) in sentence initial position and the other (or others) in sentence final position:

- (6.11) *na-ci-ka kuŋa-ji laji tuar malŋa japacara-tu*  
*me-dat-Ø fa-erg kill snake mob clever-erg*  
*'My clever father killed the snakes'.*

Note that all constituents of a noun phrase, whether they are separated or not, receive the case marking appropriate to the syntactic function of the phrase as a whole. The only exceptions are dative adjuncts which are sometimes not marked, particularly in A function, as in the preceding and the following examples:

- (6.12)  $\eta$ a-ci<sup>1</sup> ku $\lambda$ a-ji a $\eta$ ka-ma $\eta$ i-tu  $\lambda$ aji caa tu $\eta$ umpiri  
 me-dat fa-erg ail-imperf-erg kill here bad  
 'My sick father killed the bad man'.

Besides noun phrases consisting of demonstrative and/or nominal head and/or nominal modifier there is a type consisting of a non-singular personal pronoun followed by a nominal further specifying the reference of the pronoun. Thus  $\eta$ ali ku $\eta$ i, literally 'me:two wife' means 'my wife and I', ku $\eta$ i specifying the non first-person referent of  $\eta$ ali.

$\eta$ ali $\eta$ i $\eta$ i	'you and I'
$\eta$ ali ja $\eta$ i	'the white man and I'
$\eta$ ali mua $\eta$ $\eta$ u-wa $\eta$ cir	'my cousin and I' (mua $\eta$ $\eta$ u 'cousin' - wa $\eta$ cir (see §5.2.7.3.)
tina julpa $\eta$ apa $\eta$ a	'they, a father and his sons' (see §5.2.7.3.)

### 6.3. VERB PHRASE

The verb phrase consists of a verb or of two (or more?) verbs structurally in parallel, i.e. sharing the same tense/aspect, voice, mood and transitivity (e.g. -ti, - $\eta$ cama-) marking. In most instances the verbs are semantically equipollent, i.e. there is no head and no modifier.

- (6.13)  $\eta$ ampu caa  $\eta$ a-tu ati-ka pi $\eta$ ciji pi $\lambda$ i $\eta$ ipuniji  
 completely here I-erg meat- $\emptyset$  cut chop  
 'I chopped up all the meat'.
- (6.14) kupa $\eta$ uru caa  $\eta$ a-tu  $\eta$ apa nu- $\eta$ caani-cin a $\eta$ ka-cin  
 old man here I-erg saw lie-contin-part ail-part  
 'I saw the old man lying down ill'.
- (6.15) pi $\lambda$ a-pi $\lambda$ a ma $\eta$ u-u $\eta$ ci-ja-ku  $\eta$ a $\eta$ iama $\eta$ i- $\eta$ a pa $\eta$ caji- $\eta$ a  
 child mo-his-lig-dat look for-past very-past  
 'The child searched hard for his mother'.

It is possible that the parallel verbs represent separate constituents of the sentence or of a predicate phrase rather than of a verb phrase. However, I can find no instance where one of the verbs but not the other is modified by an adverb.

<sup>1</sup>See (3.77).

#### 6.4. CO-ORDINATION OF NOUN PHRASES

Two or more noun phrases may be joined by *-jana* (and) suffixed to the non-initial phrase or phrases, or to all the phrases.

- (6.16) *iti-ji maṛapai-ju-jana pila-piḷa laji-na*  
*man-erg woman-erg-and child hit-past*  
*'The man and the woman hit the child'.*

Noun phrases may also be coordinated without any conjunction. Where reference is made to the part of a whole, it is normal to use nominals in apposition for the whole and the part respectively. Previously I reported these whole-plus-part sequences (e.g. *ḡarkun ṭapantu 'wallaroo foot'* i.e. *'wallaroo's foot'*) as constituting a noun phrase. However, Tsunoda has pointed out that each nominal probably represents a separate phrase and can be modified independently of the other. The appositive nominals are not necessarily juxtaposed, but it is normal in Kalkatungu for constituents of a noun phrase to be separated with the modifier being nominalised. See (6.11).

#### 6.5. COMPLEX SENTENCES

Complex sentences have been described in chapters four and five. Here is a check list of types of subordinate clause:

- (a) favourite construction
- (b) 'lest' construction
- (c) participial clauses (i) *-pin*  
(ii) *-maṅṅi*
- (d) temporal/relative clauses
- (e) *-ḡcaaja* clauses
- (f) time clauses in *-pin*, *-pinta*

This leaves the following construction undescribed since there is no morphological peg to hang it on.

##### 6.5.1. INDEPENDENT CLAUSE AS P

The verbs *punpaji* ('to ask'), *pantiji* ('to inform'), *pati* ('to order, to inform') occur with independent clauses functioning as their PATIENT.

- (6.17) *punpa-ja caa maṛapai ṭuntiji pa-ji ḡa-ci cuṭu*  
*ask-imp here woman take that-erg me-dat coolaman*  
*'Ask that woman if she took my coolaman'.*

- (6.18) *ḡa-ju nini pati-na ḡa-ci maṭu iḡka-mi ḡa-ciḡa*  
*I-erg you tell-past me-dat mo go-fut me-all*  
*'I told you my mother was coming to (see) me'.*

However, if the P of the governing verb represents the negative of a command, the negative is expressed by *kuntu* not *wanta*.

- (6.19) *ŋa-tu* *ŋini* *pati-ŋa* *kuntu* *ŋai-ka* *ŋuwa-ŋi*  
 I-erg you tell-past not me-Ø see:imp-me  
 'I told you not to look at me'.

(but note that 'don't' is normally expressed by *wanta*)

A few examples occur in which the verb of the P clause is marked by *-ŋin*.

- (6.20) *ŋin-ti* *ŋai* *kuntu* *pati-ŋa* *caa* *cu-tu* *ŋin-ti* *mani-ŋin*  
 you-erg me not tell-past here coolaman you-erg take-part  
 'You didn't tell me you had taken the coolaman'.

#### 6.5.2. WORD ORDER IN COMPLEX SENTENCES

The favourite construction, the 'lest' construction and the *-ŋcaaja* constructions regularly follow the main clause of the sentences in which they occur. *-ŋin* and *-man-ŋi* clauses follow the main clause if they qualify P in the main clause but they may be embedded following the  $S_1$  or A of a main clause; similarly, 'relative' clauses in *ŋu.....ŋi* almost always follow the main clause.

Whereas the word order of independent clauses exhibits a good deal of variation, there tends to be a fairly rigid word order in subordinate clauses. In the favourite construction, for instance, the word order is:

AGENT	complementiser	+	bound pronouns	verb
PATIENT	"	"	"	"

With the 'lest' construction the verb is almost always sentence final. There are insufficient examples of 'lest' constructions with P represented by a noun phrase to make it clear whether P always precedes *ana* or *kun-ŋu* (see §4.4.) as one would expect by analogy with the favourite construction. A seems to come first in the 'lest' construction.

The verb is always sentence final in *ŋu.....ŋi* constructions, but there are too few examples of noun phrases in this construction to indicate how fixed their position might be.

Where *ŋu* or *ŋu-ŋa* occur functioning as relative pronouns they seem to occur as the second constituent in the *ŋu* clause, the order being NP *ŋu* verb:

- (6.21) *araka* *pakai* *ŋin-ti* *ŋu-ŋa* *ŋan-ŋamaji-ka* *utupa*  
 where it you-erg rel-acc find-Ø frog  
 'Where's the frog you found?'

The word order within *-pin* clauses seems to exhibit some variation and since most of the *-manji* clauses are intransitive not much can be said about their word order.

Two dominant tendencies that can be found in subordinate clauses are:

(a) the verb is almost always clause-final whereas in independent clauses the patterns  $VS_1$  and AVP are not too uncommon.

(b) a grammatical particle or particle-plus-bound pronoun appears regularly as the second constituent of a subordinate clause if there is a non-verb constituent present:

1	2	3
adverb	a-	verb
oblique NP	ana	+ bound pronoun
A	kuṅṅu	
P	uṅṅu	
	ṅu	

## 6.6. COMPOUND SENTENCES

Simple sentences may be coordinated simply by using the non-rising non-falling final intonation contour (/+/) on the non-initial sentences of the sequence.

- (6.22) *nini-ka ṭuna , ṅa-ci kuṭa-ka maṅu*  
*you-ḡ run me-dat fa-ḡ slow*  
*'You are faster than my father'.*
- (6.23) *nini ṅai-ṅu piḷa-piḷa , ṅai kupaṅuru*  
*you me-loc child I old man*  
*'I'm older than you'.*
- (6.24) *caa-ka jaun ulujan-ka , ṅarpaṅara katakuḷu*  
*here-ḡ big eagle-ḡ other small*  
*'The eagle is the biggest bird of all'.*

Overt co-ordinators are not common. *-jana* ('and') may be used to co-ordinate sentences (see §5.7.), in which case it is suffixed to the first word of the co-ordinated clause.

A compound sentence may be formed by omitting  $S_1$  or A from the non-initial clause.

- (6.25) *paa-miakaja iṅka-ṅa , ḷaji-ṅa*  
*that-plural go-past hit*  
*'Those went , hit ....'*

In such a construction or indeed in any co-ordinate construction, there does not seem to be any evidence of the ergative principle we



find operating in subordinate clauses. We do not have a choice between using -ji or omitting it. We cannot co-ordinate on the basis of P being referential with S<sub>1</sub> or with A. In (6.25) there is no possibility of omitting -ji from *laji* to give the meaning 'were hit'. To express 'went and got hit' one would have to introduce *narpa* as an indefinite agent.

- (6.26) *paa-miakaja inka-na , narpa-tu laji-na*  
*that-plural go-past indef-erg hit-past*  
*'They went and someone hit them'.*

Co-ordination is most commonly effected by a combination of intonation and bound pronouns. Essentially we have independent sentences co-ordinated only inasmuch as the non-final clauses of the sentence are marked by /+/. Where clauses are so coordinated, it is normal to represent S<sub>1</sub> and A by the S<sub>1</sub>/A set of bound pronouns (§3.3.) in the non-initial clauses. These bound pronouns may be used in a sentence-initial clause or indeed in any independent clause. P may also be represented by a bound pronoun but the series of P pronouns appears to be defective. The first person and third person singular in S<sub>1</sub> or A function is represented by zero.

- (6.27) *mpaja kuntu naniamai-na nurkuna iti-na-mpa-nu*  
*you:2 not find-past empty-h return-past-perf-you:2*  
*'You two didn't find any and you came back empty-handed'.*

- (6.28) *marapai-tu napa that caa , inka-na-ju tumparara-a,*  
*woman-erg saw that here go-past-they:2 lizard-dat*  
*iti-ntiji-na-ju , laji-ju tumparara*  
*return-tr-past-they:2 kill-they:2 lizard*  
*'The women saw that. They went for the lizard, brought it back and killed it'.*

- (6.29) *marapai-tu nai laji kaki-jan-puniji-ni*  
*woman-erg me hit wound-con-tr-me*  
*'The woman hit me and wounded me'.*

The verb of non-initial clauses describing a sequence of actions may be suffixed by -mpa.

- (6.30) *caa na-tu maniji tuar-ka jarari maniji-mpa laa wakini*  
*here I-erg get snake-ø tail get-seq now spin*  
*laji-mantiji-mpa mu-lu*  
*hit-with seq ground-loc*  
*'I get the snake by the tail, get it and kill it by whipping it on the ground'.*

## 6.7. THEMATIC STRUCTURE

The preceding generalisations about word order were made without reference to thematic structure. A consideration of the thematic structure brings out two clear principles:

- (a) the topic precedes the comment
- (b) the sentence-initial position is one that can be used for focus.

Consider for example sentences such as the following where the specific precedes the generic, the specific obviously representing the topic.

(6.31) *nirili caa kupaŋuru*  
*Nyirili here old man*  
*'Nyirili is an old man'.*

(6.32) *kunka paa piŋpiri*  
*tree there coolibah*  
*'That tree is a coolibah'.*

All other things being equal, A precedes P. However, most of the well-known topicalisation tendencies override this underlying order. If A is inanimate or indefinite it tends to follow P, particularly if P is human, most especially if it is first person.

(6.33) *ŋai-ka uŋŋaji kuu-ŋku*  
*I-ø soak rain-erg*  
*'I got caught in the rain'.*

(6.34) *caa juŋju ŋa-ci ŋuku piŋŋipuniŋi cipa-ŋi ŋŋia-ku*  
*here arm me-dat dog crush this-erg rock-erg*  
*ŋuji-pin-tu*  
*fall-past-erg*  
*'The falling rock crushed my dog's paw'.*

(6.35) *caa pussycat ŋa-ci ŋarpa-ŋu laŋi*  
*here cat me-dat someone-erg kill*  
*'Someone killed my cat'. 'My cat got killed'.*

The use of *ŋaci* following its head is unusual.

Regarding point (b), that the sentence-initial position may be used for focus, the following examples are offered. The focus will often be in its 'normal' position within the comment, but almost as often it is moved to the front of the sentence.

In the first example, *ŋaciŋi* is in focus. Note that *la-*, the verb used in the question, means 'hit by contact' or 'kill' and it is used where the details of hitting or killing are not known. *ŋaci* on the other hand means 'to hit with a missile' or 'to chop':

- (6.36) *nakaɬicajan nin-ti laji-ka macumpa-ka?*  
*how you-erg kill-Ø kangaroo-Ø*  
*'How did you kill the kangaroo?*  
*inɬiji naa ɳa-tu ɳtia-ku*  
*hit here I-erg stone-erg*  
*'I hit him with a stone'.*
- (6.37) *pipani caa juru*  
*clever here man*  
*'He's clever that bloke'.*
- (6.38) *ca-ŋkajanu mara ɳai inka-ŋa kua-laŋu*  
*this-abl now I go-past creek-abl*  
*'This is the creek I came from (this morning)'.*  
*cipa-ji ɳa-tu kunka-ku lai caa tuar, caŋkaaɬi*  
*this-erg I-erg stick-erg hit here snake here*  
*ɳu-ŋcaani-cin aŋɬiija*  
*lie-contin-part mouth:loc*  
*'This is the stick I used to hit the snake who was lying*  
*in the doorway'. ('With this stick I hit...')*
- (6.39) L.M. *ɳa-tu ɳulurmaji wakaɬi*  
*I-erg catch fish*  
*'I caught [some] fish'.*  
 M.M. *wakaɬi maniji ɳa-ci-wa-tu marapai-tu ; maɬta*  
*fish get me-dat-lig-erg woman-erg mob*  
*wakaɬi maniji ɳa-ci-wa-tu marapai-tu*  
*fish get me-dat-lig-erg woman-erg*  
*'My wife got [some] fish; my wife got a lot of fish'*
- (6.40) B.B. *ɳami piɬa-piɬa aɬiji*  
*how many child produce*  
*'How many children does she have?'*  
 M.M. *kurpai cipa-ji aɬiji*  
*three this-erg produce*  
*'She has three'.*
- (6.41) B.B. *'How would you catch utiŋar?'*  
 M.M. *jalpi-ŋku , jalpi-ŋku ɳa-tu laji utiŋar-ka*  
*net-erg net-erg I-erg kill emu-Ø*  
*'With a net, I kill emus with a net'.*  
*(laji is not to be taken literally)*
- (6.42) M.M. *ɳani nin-ti pati-ŋa?*  
*who you-erg tell-past*  
*'Who did you tell?'*  
 L.M. *iki ɳa-tu pati-na ....*  
*Hickey I-erg tell-past*  
*'I told Hickey.....'*

(6.43) B.B. *'Where were you born?'*

M.M. *jami!i- jami!i-ti ɲai ɲa-ci maɬu-ju aɬiji*  
*Old Hammerly-loc me me-dat mo-erg bear*  
*'At Old Hammerly my mother had me'.*

(6.44) *macumpa , ɲakaɬi ɲin-ti laji ?*  
*kangaroo how you-erg kill*  
*'The kangaroo. How did you kill it?'*

*jalpi-pia ɲaa ɲa-tu laji*  
*net-loc here I-erg kill*  
*'I caught in a net'.*

Note in (6.44) that *macumpa* appears outside the sentence as a preposed topic. This familiar device is not uncommon in Kalkatungu.

### 6.8. DELETING A AND P

Since third person singular is represented normally by zero, there will be many examples of independent clauses with no overt A or P even apart from elliptical sentences. However, apart from this, it seems that one can omit an indefinite A. Thus one finds sentences such as,

(6.45) *ɲa-ci ku!a ɲaa katiji-ɲa ɲiji*  
*me-dat father here bury-past here*  
*'My father was buried here'.*

However, *ɲaci ku!a* in (6.45) is P not  $S_1$  (it would be represented in the accusative if realised as a bound pronoun). I think we must consider that there is a third person A present, realised by zero. Apparently this zero third person form can be used for an indefinite A. This choice of an indefinite A and the related fact that *ɲaci ku!a* in (6.45) is topic give the impression that this is an intransitive passive-like sentence. However, structurally it is transitive.

Any examples of the omission of an indefinite P involve the anti-passive, e.g. *maɬu ɬuji* *'mother cooks'*.

## CHAPTER 7

### KALKATUNGU IN COMPARATIVE/HISTORICAL PERSPECTIVE

#### 7.1. CLASSIFICATION BY LEXICOSTATISTICS

In 1966 O'Grady, Wurm and Hale published a lexicostatistical classification of Australian languages based on the 'percentage of cognate lexical items' (O'Grady and Klokeid 1968:298) that languages had in common. The classification appeared in the form of a map (see references), but a list of Australian languages classified as on the map appeared in *Anthropological Linguistics* 8:2. The methods used to arrive at the classification are described in O'Grady and Klokeid 1968. A revised version of the classification appeared in Wurm 1972.

The classification has been strongly criticised by Dixon (1972:337) on the grounds that it takes too little account of borrowing, but nevertheless the classification provides a useful orientation.

O'Grady and co. classify two communalects sharing over 70 per cent of vocabulary in common as dialects of the same language. Communalects sharing between 51 per cent and 70 per cent are classified as languages of the same subgroup; those sharing between 15 per cent and 25 per cent are classified as members of the same family, and those sharing less than 15 per cent are classified as members of separate families.

The classification recognises 29 families (27 in Wurm's revision) with one family, the Pama-Nyungan, covering over two-thirds of the continent and the other 28 (26 in Wurm) being concentrated in a continuous bloc running from Dampier Land in Western Australia to the western coast of the Gulf of Carpentaria in north-west Queensland. As can be observed from the map, the Pama-Nyungan family has an enclave in north-east Arnhem Land.

Kalkatungu is classified by O'Grady and co. as the sole member of the Kalkatungic Group within the Pama-Nyungan family.

Since Kalkatungu is on the northern periphery of the Pama-Nyungan area and since from casual observation it appears to lack many of the

well-known widespread Pama-Nyungan words such as *ḷina* 'foot' and *maṛa* 'hand', it is interesting to check to see if Kalkatungu really is Pama-Nyungan.

The following figures indicate the proportion of words Kalkatungu shares with its neighbours and near neighbours. The first figure in each entry, the vulgar fraction, indicates the actual number of items that were common to the lists being compared and the actual number of items compared. The second figure expresses this ratio as a percentage. The figures were obtained by comparing as many items as possible from a variety of sources.

The entry listed as 'Curr 97' is the vocabulary numbered 97 in Curr and presented as a vocabulary of 'Mykoolan' (/mayikulan/). However, neither the location nor the actual words given tally with what we know from other sources for mayikulan. The location is given as 'between the Gregory and Leichardt [sic] Rivers'. Providing they were well up along these rivers (i.e. well to the south), the speakers of vocabulary 97 would have been neighbours or near neighbours of the Kalkatungu. The language of 97 is clearly of the Mayiyapi type, i.e. related to Mayikutuna, Mayiyapi, Ngawun, Mayikulan, Mayithakurti and Wunamara. It also contains the highest percentage of what are fairly obviously loan words from Kalkatungu of any of the Mayiyapi-type sources. This suggests that the name Mayikulan is incorrect as Mayikulan was certainly not contiguous with Kalkatungu. The location given in Curr suggests that it belongs in the southern part of Mayikutuna territory and indeed it contains a few distinctively Mayikutuna terms such as *muḷa* 'bad', *yirman* 'man' and *muni* 'tongue'. I will leave it as simply Curr 97 but the pattern of shared vocabulary items, not only items shared with Kalkatungu but also with other Mayiyapi-type communalects, suggests that it is probably 'southern Mayikutuna'.

Kalkatungu and Wanyi		5/150	3%
"	" Mayiyapi	32/200	16%
"	" 'Curr 97'	24/109	26%
"	" Mayithakurti	38/150	25%
"	" Wunamara	22/100	22%
"	" Guwa	30/200	15%
"	" Yanda	15/102	15%
"	" Yalarnnga	71½/167	43%
"	" Warluwara	22/900	2%
"	" Bularnu	9/200	5%
"	" Yaruwina	3/150	2%

These are raw figures with no allowance for probable borrowings. Each comparison involves two non-lexical items, namely the roots for 'I' and 'you'. In those cases where these two words could not be found, they were assumed to be cognate with Kalkatungu. The roots, ŋa- 'I' and N<sup>Y</sup>u~N<sup>Y</sup>i 'you', are found in practically every Pama-Nyungan language and can be found in languages or dialects closely related to those sources in which we find they are not recorded.

The following lists give the words that are common to Kalkatungu and each of the neighbouring languages I compared Kalkatungu with. The items marked by a cross (X) to the left of Kalkatungu entry are those which I consider to be loan words as opposed to genuine cognates or old borrowings.

There are doubtless phonetic inaccuracies in these lists but this should not affect the figures based on a comparison of these lists.

#### Wanyi

English	Wanyi		Kalkatungu
<i>I</i>	ŋaka		ŋaji
<i>you</i>	niŋci		niŋti
<i>crow</i>	waakula	X	wakaŋa, waakaŋa
<i>corroboree</i>	cuŋpa	?	cuŋpa ('jump')
<i>rock wallaby</i>	ŋaŋiŋaŋi	X	ŋaŋiŋaŋi

#### Mayiyapi

English	Mayiyapi		Kalkatungu
<i>young man</i>	japijiri	X	japariri
<i>father's mother</i>	papi	X	papi(pi)
<i>hair</i>	warumpu		waŋupu
<i>eye</i>	mili		miŋi
<i>beard</i>	janpar		janpar
<i>stomach</i>	wajir		waira ('heart')
	ŋapura		putu ('stomach')
<i>navel</i>	cuŋku		ciŋku
<i>excrement</i>	waŋu, wana		unu
<i>sores</i>	kaki		kaki
<i>kangaroo</i>	macumpa, kuru	X	macumpa
<i>wallaroo</i>	ŋarkunu	X	ŋarkun
<i>kangaroo rat</i>	cikal	X	cikal ('bandicoot')
<i>bandicoot</i>	pikura, wuni	X	pikura
<i>flying fox</i>	muŋur		muŋi ('bat')
<i>fish</i>	palpi, wakaji		wakaŋi

<i>eaglehawk</i>	kuriṭala	X	kuriṭala
<i>wild turkey</i>	parkamu, ṭuruṅa	X	parkamu
<i>kookaburra/jackass</i>	caruṅkul	X	caruṅkul ('jackass')
<i>crow</i>	ṭuṅupari, waja		wakaḷa, waakaḷa
<i>black duck</i>	karapa, pintura	X	karapa ('duck')
<i>fly</i>	milṅa, piṃul	X	milṅa
<i>feather</i>	kuṭi	X	kuṭi
<i>sun</i>	kukuṛu, piṃcamu	?	wanaka, piṃcamu
<i>thunder</i>	janpari, pari		janpiri ('lightning')
<i>stone</i>	miṅṭi		ṅṭia
<i>tree</i>	kuṅka, puku		kunka
<i>grass</i>	kaṭir/kacira	X	kaṭir
	jalkuṃ		
<i>boomerang</i>	jalkapaṛi	X	jalkapaṛi
<i>woomera</i>	jilman	X	julman
<i>shield</i>	jampuru	X	jampuru
<i>meat</i>	kaṭi		ati
<i>big</i>	jakun		jawun
<i>dark</i>	waraṅka etc.		waṭaṅka
<i>black</i>	marcin	X	macin, marcin
<i>sit, stay</i>	jini		ini
<i>see</i>	ṅama		ṅa-
<i>three</i>	kurpara, kurpaji		kurpai
<i>I</i>	ṅajiku		ṅai
<i>you</i>	juntu		pini, pinti

## Curr 97

English	Curr 97		Kalkatungu
<i>wallaroo</i>	ṅarkun	X	ṅarkun
<i>pelican</i>	walkiripari	X	walkiripari
<i>white cockatoo</i>	jawurawari	X	jauira
<i>crow</i>	wukan	X	ukan, wakan, wakaḷa
<i>mosquito</i>	mika	X	mikaṛa, mikaa
<i>fly</i>	milṅa	X	milṅa
<i>three</i>	kurpaji		kurpai
<i>younger siblings</i>	kacakura		kacakuḷu ('small')
<i>young man</i>	upariṃci	X	upariṃci
<i>baby</i>	piḷapiḷa	X	piḷapiḷa
<i>head</i>	kaṅṭar		kaṅṭa
<i>eye</i>	mili		miḷṭi
<i>ear</i>	pina		iṅṭa [normal], pina [rare]
<i>hair</i>	warumpu		waṛupu



<i>beard</i>	janpar		janpar
<i>grass</i>	kaʃir	X	kaʃir
<i>excrement</i>	kuna		unu
<i>reed spear</i>	kunkun		kunka
<i>woomera</i>	julman	X	julman
<i>shield</i>	miʃir	?	miʃar
<i>tomahawk</i>	mari	X	maria
<i>star</i>	cirka	X	cirka
<i>dark</i>	warangka		waʃangka
<i>day</i>	nila/niʃa		iʃa
<i>I</i>	ŋajiku		ŋai (nominative)
<i>you</i>	juwantu		niinti (ergative)
<i>sit</i>	jini-		ini ('remain')

## Mayithakurti

English	Mayithakurti		Kalkatungu
<i>young man</i>	japariri	X	japariri
<i>father's mother</i>	papin	X	papi(pi)
<i>mother-in-law</i>	wapuʃu	X	wapuʃu
<i>hair</i>	warumpu		waʃupu
<i>eyebrow</i>	miʃcirin		miʃʃi ('eyes')
<i>beard</i>	janpar		janpar
<i>elbow</i>	jurumuku		juʃumuku
<i>breasts</i>	ŋamakura, ʃampu		ŋamaŋa ('chest')
<i>stomach</i>	ŋapura		putu
<i>big toe</i>	cana maʃu		piku ('nail') maʃu
<i>excrement</i>	wuntu		wunu
<i>kangaroo</i>	macumpa	X	macumpa
	maŋuruŋu		
<i>wallaroo</i>	ŋarkun	X	ŋarkunu
<i>kangaroo rat</i>	ŋaʃiŋaʃi	X	ŋaʃiŋaʃi ('rock wallaby')
<i>echidna ('porcupine')</i>	wacinan	X	wacinaan, cuʃujan
<i>plain goanna</i>	mampurupari	X	mampu(ru)pari ('prentie')
<i>lizard</i>	walkaaʃu	X	walkaaʃu
<i>eaglehawk</i>	kuriʃala	X	kuriʃala
<i>type of hawk</i>	kacapari	X	kacapi
<i>wild turkey</i>	parkam	X	parkamu
<i>pelican</i>	walkiripari	X	walkiripari
<i>corella</i>	kulura	X	kuluta
<i>black duck</i>	karapa	X	karapa ('duck')
<i>spider</i>	kupu	X	kupu
<i>fly</i>	miʃa	X	miʃa

<i>mosquito</i>	mikaja, liwin	X	mikaṛa
<i>flock pigeon</i>	ciruwali	X	curuwali
<i>thunder</i>	janpari		janpiri ('lightning')
<i>water</i>	japu, kunu		kuu
<i>grass</i>	kaṭir	X	kaṭir, etc.
<i>boomerang</i>	jalkapaṛi	X	jalkapaṛi
<i>woomera</i>	julman	X	julman
<i>nulla</i>	ṭalimpiri	X	ṭalimpiri
<i>shield</i>	miṭa	X	miṭar
<i>stone knife</i>	kaṅkaṛi, kampu	X	kankaṛi
<i>axe</i>	marija	X	maria
<i>little</i>	kacakuru, etc.		kacakuḷu
<i>sit, stay</i>	jini		ini
<i>see</i>	ṅaṅ(k)ama		ṅa-
<i>three</i>	kurpaia		kurpai
<i>I</i>	?		ṅai
<i>you</i>	?		ṛini

## Wunamara

English	Wunamara		Kalkatungu
<i>father's sister</i>	kuṅi	X	kuṅi ('wife')
<i>father's mother</i>	papin	X	papi(pi)
<i>head</i>	kaṅṭa		kaṅṭa
<i>hair</i>	warumpu		waṛupu
<i>eye</i>	mili		miḷḷi
<i>beard</i>	janpar		jaṅpar
<i>breasts</i>	ṅamakura		ṅamaṅa ('chest')
<i>stomach</i>	ṅapura		putu
<i>vulva</i>	jurila	X	irila
<i>excrement</i>	wuntu		unu
<i>wallaroo</i>	ṅarkun	X	ṅarkun
<i>bandicoot</i>	pikura	X	pikura
<i>plain goanna</i>	mampurupari	X	mampu(ru)pari ('prentie')
<i>lizard</i>	walkaatu	X	walkaaṭu
<i>eaglehawk</i>	kurit̄ala	X	kurit̄ala
<i>crow</i>	warkaran	X	wakaḷa, wakan
<i>galah</i>	kilawuru	X	kilawuru
<i>fly</i>	milṅa	X	milṅa
<i>mosquito</i>	mikaja	X	mikaṛa
<i>flock pigeon</i>	ciruwali	X	curuwali
<i>woomera</i>	julman	X	julman

<i>nulla</i>	ɬalimpiɾi	X	ɬalimpiɾi
<i>I</i>			ŋai
<i>you</i>			nini

## Guwa

English	Guwa		Kalkatungu
<i>father</i>	kupa		kupa, kupakupa, kupaŋuru ('old man')
<i>head</i>	kaɬa		kaŋɬa
<i>elbow</i>	juricimu		juɾumuku
<i>breast</i>	ɬampu, ŋamana		ŋamaŋa ('chest')
<i>stomach</i>	ma(ji)ca, puru		putu
<i>testes</i>	ŋuɬu		ŋuɬu
<i>anus</i>	miri, miɬi		miɬiŋi
<i>faeces</i>	kuna		unu
<i>body hair</i>	pupcu		pupcu
<i>lightning</i>	ɾuŋka		ɾuŋka ('thunder')
<i>thunder</i>	waŋɬi, janpiɾi		janpiɾi ('lightning')
<i>kangaroo</i>	macumpa	X	macumpa
	maŋkuruŋu		
<i>wallaroo</i>	ŋarkuna	X	ŋarkun
<i>fish</i>	wakani, palpi		wakaɾi
<i>sand goanna</i>	paripara	X	paripari ('carpet snake')
<i>broilga</i>	kuɬuru	X	kuɬuur
<i>pelican</i>	walkiripari etc.	X	walkiripari
<i>eaglehawk</i>	kuriɬala etc.	X	kuriɬala
<i>kite-hawk</i>	kacapari	X	kacapi
<i>crow</i>	wakaŋa	X	wakaɬa, waakaɬa
<i>galah</i>	kilawuru	X	kilawuru
	kilaŋci		
<i>wild turkey</i>	parkamu	X	parkamu
<i>egg</i>	kuɬu		kuɬu
<i>coolibah</i>	makaru	X	makaru
<i>gidyea</i>	pacara	X	pacara
<i>shield</i>	kunpara, jampuru	X	jampuru
<i>stone knife</i>	kankaɾi	X	kankaɾi
<i>dilly bag</i>	punku		punkuwari
<i>fishing net</i>	mukuwari	X	mukuwari
<i>tomahawk</i>	parampara	X	warampaɬa
<i>three</i>	kurpara		kurpai
<i>go away</i>	kanta		kaanta
<i>see</i>	ŋaka		ŋa-

<i>I</i>	ŋaja	ŋai
<i>you</i>	intu	ɲini

## Yanda

English	Yanda		Kalkatungu
<i>kangaroo</i>	maɭumpa	X	macumpa
<i>broilga</i>	puralka	X	puralku, etc.
<i>crow</i>	wakaɭa	X	wakaɭa, waakaɭa
<i>egg</i>	kuɭu		kuɭu
<i>fish</i>	wakari	?	wakaɾi
<i>crayfish</i>	ɭumpan	X	ɭumpan
<i>eye</i>	mijil		miɭɭi
<i>hair</i>	pupcu		pupcu ('body hair')
<i>stomach</i>	puru		putu
<i>excrement</i>	kuna		unu
<i>tomahawk</i>	warampaɭa		warampaɭa
<i>I</i>	ŋaɲca		ŋai
<i>you</i>	inpa		ɲini
<i>meat</i>	kati		ati
<i>sit</i> (and 'remain'?)	ɲina		ini ('remain')
<i>eaglehawk</i>	kuritili	X	kuriɭala

## Yalarnnga

English	Yalarnnga		Kalkatungu
<i>push</i>	aŋka	X	aŋka
<i>this</i>	cala		caa
<i>navel</i>	ciɲiŋku	X	ciɲiŋku
<i>spear</i>	cilka	X	cilka
<i>star</i>	cirka, puturuŋu	XX	cirka, puturuŋu
<i>nose</i>	jici(jici)		iciɲci
<i>now, today</i>	jiɭali		iɭa
<i>man</i>	jiri		juru ~ iti
<i>berry</i>	jalpuŋu	X	jalpuŋu
<i>big</i>	janu		jaun
<i>yam</i>	jaŋkata		ŋkaa
<i>far</i>	jarka	X	jarka
<i>creek</i>	juka		kuwa
<i>fly</i>	jumunturu	X	jumunturu
	jumuntiri	X	jumuntiri, miŋa
<i>arm</i>	juɲɭu	X	juɲɭu
<i>ant</i>	juɭuɭu		iɭi

<i>father</i>	kaļu		kuļa
<i>witchetty grub</i>	kapara	X	kapara
<i>wash</i>	kari		kari
<i>boy</i>	kujiri	X	kujiri
<i>type of pigeon</i>	kulupaci	X	kulupaci
<i>excrement</i>	kuna		unu
<i>no, not</i>	kuntu	?	kuntu
<i>water</i>	kunu		kuu
<i>old man</i>	kupa(kupa)		kupa(kupa), kupaŋuru
<i>spider</i>	kupu	X	kupu
<i>flame</i>	kuṛaļi	X	kuṛaļi
<i>magpie</i>	kuraṭapu	X	kuraṭapu
<i>grindstone (lower)</i>	macamila	X	macamila
<i>tired</i>	macuri	X	macuri
<i>coolibah</i>	makaru	X	makaru
<i>food</i>	maṅṭa		maa
<i>unmarried (of men)</i>	maṅṭawiṭa	X	maṅṭawiṭa ('single men's camp')
<i>get</i>	mani	X	mani
<i>seeds of nut grass</i>	maṅaru	X	maṅaru
<i>mosquito</i>	mikaṛa	X	mikaṛa
<i>eye</i>	mili		miḷḷi
<i>blowfly</i>	miḷḷa	X	miḷḷa
<i>breasts</i>	mimi		mimi
<i>camp</i>	mutu		muu
<i>when</i>	ḡalaṅu		ḡiaṅu
<i>who</i>	ḡanku		ḡani
<i>sit, remain</i>	ḡina		ini
<i>see</i>	ḡani		ḡa-, ḡani
<i>rock wallaby</i>	ḡaḷiḡaḷi	X	ḡaḷiḡaḷi
<i>eat</i>	ḡari		aḡi
<i>wallaroo</i>	ḡarkunu	X	ḡarkun
<i>give</i>	ḡuni		aḡi etc.
<i>wild turkey</i>	parkamu	X	parkamu
<i>very</i>	paṅcara		paṅca
<i>yellow</i>	paru	X	paru
<i>if</i>	pula		puju
<i>they two</i>	pula		puju
<i>body hair</i>	puṅcu		puṅcu
<i>urinate</i>	pura		pural ('pubic hair')
<i>stomach</i>	putu		putu
<i>thunder</i>	ṛuṅula	X	ṛuṅula

<i>bite</i>	ṭaca		ica
<i>where to</i>	ṭarimpala		arakani
<i>emu feather</i>	ṭilijara	X	ṭiliara
<i>chop</i>	ṭiŋka		iŋci
<i>die</i>	wulaŋa		uḷi
<i>fire</i>	wacani		ucan
<i>heart</i>	wajira		waira
<i>that</i>	waja		paa
<i>crow</i>	wakaḷa	X	wakaḷa
<i>skin, pelt</i>	waku	X	waku
<i>hit</i>	wala		ḷa-
<i>tomorrow</i>	waṭaŋampa		waṭaŋka ('dark, night')
<i>sing</i>	wawi		api
<i>shade</i>	waḷuwa	X	waḷuwa
<i>tomahawk</i>	waṭampaṭa	X	wampaṭa
<i>meat</i>	wari		aṭi
<i>hair</i>	warpuṅṭuru		warupu
<i>dark</i>	waṭa	?	waṭa

## Warluwara

English	Warluwara		Kalkatungu
<i>old man</i>	puḷya		uḷkuwuri ('big')
<i>girl</i>	wamba	?	wampa
<i>stone chisel</i>	kumpaḷṭa	?	kumpaṭa
<i>coolaman/corkwood</i>	pili		piḷi (cradle for 'cooking' pituri in)
<i>bag</i>	puŋguwaḷi	?	puŋkuwari
<i>fishing line</i>	kaṭapi		waṭuku
<i>forehead</i>	miṭi		(kaṅṭa) mirimiri
<i>armpit</i>	kiḷikiḷi		kiḷakiḷama ('tickle')
<i>breast</i>	ŋama		ŋamaŋa ('chest')
<i>vagina</i>	ṭiṅṭini	?	ṭinti
<i>excrement</i>	kuna		unu
<i>be slow</i>	maṇuri		maṇu
<i>wallaroo</i>	ŋarkuŋu	X	ŋarkun
<i>duck</i>	cipiḷa	X	kipuḷu/cipuḷu ('duck/ whistler duck')
<i>duck/wood duck</i>	ṭipiḷi	?	
	ṭipiḷi		
<i>crow</i>	wakuḷa	X	wakaḷa
<i>willy wagtail</i>	cinticinti	?	cintipir
<i>snake</i>	ṭuwana		ṭuar

<i>frog</i>	caralku	X	caralku
<i>tree, stick</i>	juyu		juku ('spear')
<i>coolibah</i>	kaɭaca	X	kaɭaca
<i>gidyea</i>	kijalpari	X	kialpari ('west, chestnut' (of horses) )
<i>yellow ochre</i>	paru	X	paru
<i>shade</i>	waɭpaci		waɭuwa
<i>sit, stay</i>	pina		ini
<i>where</i>	ɭara		ara
<i>when</i>	ɲaɲaɲa		ɲianta
<i>I</i>	ɲaɲa		ɲai
<i>you</i>	jipa		pini

#### Bularnu

English	Bularnu		Kalkatungu
<i>snake</i>	ɭuwati	?	ɭuar
<i>I</i>	ɲaɲa		ɲai
<i>you</i>	jipa		pini
<i>forehead</i>	miɭi		(kaɲɭa) mirimiri
<i>eyebrow</i>	mililiri		miɭi ('eyes')
<i>faeces</i>	kuna		unu
<i>crow</i>	wakula	X	wakaɭa
<i>galah</i>	kilakila	X	kilauru, kilakila
<i>wild orange</i>	waɭaci	X	waɭaci
<i>small</i>	ɭapukutu		ɭapikula, kaɭakuɭu
<i>who</i>	ɲani		ɲani
<i>dig</i>	paɭi		waɭukati

#### Yaruwina

English	Yaruwina		Kalkatungu
<i>teeth</i>	aɭiyiɲa		aɭiɲa
<i>I</i>	?		ɲai
<i>you</i>	?		pini

The following figures indicate the percentages of vocabulary Kalkatungu shares with its neighbours after probable borrowings have been excluded.

The preceding lists contain some pairs of similar forms that differ somewhat in meaning between Kalkatungu and the other language involved in the comparison. These were not counted as plus in arriving at the original figures and hence have not been subtracted if thought to reflect borrowing. Thus kuɲi 'father's sister' in Wunamara is probably

a borrowing shared with Kalkatungu kuŋi 'wife', kinship terms commonly being borrowed. However, the discrepancy in the glosses rules them out as examples of related forms for a common content item. In some cases discrepancies in glosses were dismissed as inaccuracies in the sources.

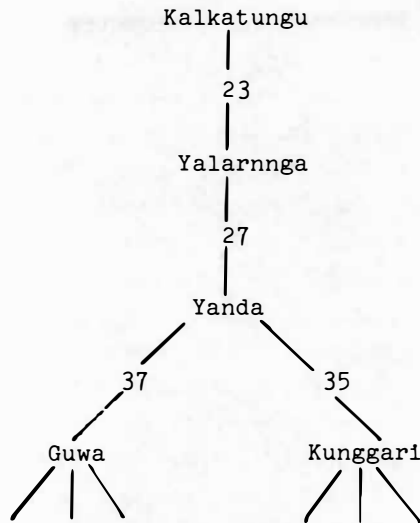
Kalkatungu and Wanyi	2/150	1%
" " Mayiyapi	19/200	10%
" " Curr 97	11½/109	11%
" " Mayithakurti	13½/150	9%
" " Wunamara	9/100	9%
" " Guwa	17½/200	9%
" " Yanda	8/102	8%
" " Yalarnga	38½/167	23%
" " Warluwara	15/900	2%
" " Bularnu	6/200	3%
" " Yaruwina	3/150	2%

Kalkatungu shares a much higher percentage of its vocabulary with Yalarnga than with any other language. Indeed it is only this figure that enables Kalkatungu to gain membership in the Pama-Nyungan family according to the criteria of O'Grady and co. Remember that two communalects must share at least 15 per cent of their vocabulary to be members of the same family. Since Kalkatungu shares 23 per cent with Yalarnga, Kalkatungu and Yalarnga represent separate groups within the same family and Yalarnga is Pama-Nyungan having 27 per cent in common with Yanda which in turn has 31 per cent in common with Guwa and so on.

The Pama-Nyungan family is determined by chaining languages together. The vast mass of communalects covering the southern three-quarters of Australia can be chained together as a family where every member shares at least 15 per cent in common with at least one other member. Kalkatungu scrapes into the family by virtue of its relationship with Yalarnga and Yalarnga by virtue of its relationship with Yanda. Yanda has a strong lexical relationship with Guwa (37%) and Kunggari (35%) (Breen 1971:82). Guwa and Kunggari have strong lexical links with a number of other languages of the Pama-Maric Group (Breen 1971).

The relationship of Kalkatungu to other Pama-Nyungan languages can be shown diagrammatically to be of the following kind:





The O'Grady and co. method depends rather too much on the presence of certain links to establish the classification. As can be seen from this diagram, Yalarnga, and therefore Kalkatungu, would not have been admitted to the Pama-Nyungan family if we did not have some Yanda material. In fact we have only one source, Curr list No.103. Yet Yalarnga is a very typical Pama-Nyungan language, having a fair number of lexical roots that are widespread in Australia and particularly common in the Pama-Nyungan area, and more importantly, it has a morpho-syntactic system that is typically Pama-Nyungan both in structure and in the form of some of its function morphemes.

## 7.2. THE PATTERN OF BORROWINGS

A comparison of the lists given above reveals that Kalkatungu was involved in borrowing with its northern, eastern and southern neighbours but hardly at all with its western neighbours. It is often possible to pick borrowed items because of their geographical distribution, phonological identity and their semantic scope. Lexical items for fauna, flora, artefacts and kin are commonly found distributed over an area irrespective of the boundaries between sub-groups, groups and families, irrespective of the relative similarity between the languages in the area. Phonological identity, making allowances for some changes that are consequent on the phonotactic constraints of particular languages, is a likely marker of borrowing. In a favourable case phonological identity is a strong marker of borrowing. In the case of Yalarnga and Kalkatungu, we find that Kalkatungu has undergone a number of phonological changes not shared by Yalarnga. This means that words found in Yalarnga and Kalkatungu that reflect the phonological changes in

Kalkatungu can be ascribed to an older period, being part of the common genetic inheritance of the two languages or ancient borrowings. Words that are identical are likely to be more recent borrowings.

Some of the putative borrowings marked by a cross in the tables above are examples of items that are widespread in the area and in these cases it is difficult to determine the direction of borrowing e.g. parkamu 'wild turkey'. In other cases a word is widespread in the area and appears to be a borrowing but we find that it is scattered around Australia. Such an item is wakaꞑi 'fish'. It is found in Kalkatungu, Mayawarli (related to Pitta-Pitta), Yanda and Guwa. It is found in Mayikutuna and Mayiyapi as wakayi, presumably with lenition of intervocalic ꞑ, a change attested elsewhere. It seems as if it may be a borrowing, but when one finds wakari 'meat' in Thargari in Western Australia (Klokeid 1969) and scattered here and there over the continent, one realises that we are probably dealing with the reflexes of a word that goes back to an ancient proto-language but which appears in similar form because of the phonological similarity of most Australian languages.

In the case of putative borrowings between Kalkatungu and communalects of the Mayiyapic group (see map), it appears that the main direction of borrowing was from Kalkatungu into the adjacent Mayiyapic communalects. In a number of instances the shared items are found only in those Mayiyapic communalects which bordered on Kalkatungu e.g. ꞑaliꞑali 'rock wallaby' is shared with Mayithakurti, walkiripari 'pelican' is shared with Mayithakurti and Curr 97, kupu 'spider' with Mayithakurti and miꞑa 'fly' with Mayithakurtu, Wunamara, Curr 97 and Mayiyapi. Mayiyapi was not contiguous with Kalkatungu and significantly the word ꞑimul is also recorded for 'fly' in this communalect, a word also recorded in Ngawun, Mayikulan and Mayikutuna. If these are examples of borrowing from Kalkatungu into Mayiyapic the distribution is accounted for. If they are borrowings from Mayiyapic, we would have the difficulty of explaining why the items tend to be found almost exclusively in the communalects contiguous with Kalkatungu.

In the case of items shared by Kalkatungu with Guwa, Yanda and Yalarnga I am unable to determine the main direction of borrowing with any confidence.

In the case of Yaruwina, Bularnu, Warluwara and Wanyi the only significant feature is the virtual lack of evidence for borrowing. It is not perfectly clear just which languages bordered on Kalkatungu territory in the west. The map represents an amalgam of sources and mainly follows Breen (1971 and p.c.). Breen's version of the tribal territories differs somewhat from that given in Tindale 1974. Tindale shows

Yaruwina (Jaroŋa) as having a border with Kalkatungu, but Breen places Bularnu between Yaruwina and Kalkatungu. Breen's version makes good linguistic sense. It places three obviously related languages Wakaya, Bularnu (not shown on Tindale's map) and Warluwara in a continuous bloc. Tindale does not show Wanyi (or Waanyi) as having any border with Kalkatungu, but places 'Wa:kabuŋa' between the two. I have no reason to dispute this. I included Wanyi in the lists given above only because the O'Grady and co. map shows Wanyi territory touching Kalkatungu territory at one point. Unfortunately we have no information on Waakabunga.

In sum then Kalkatungu exhibits borrowing with the contiguous communities of the Mayiyapic group, with Guwa (with which it may or may not have had a common border), with Yanda (with which it may or may not have had a common border) and Yalarnga (with which it certainly had a common border). Kalkatungu exhibits very little shared vocabulary with Bularnu and Warluwara. Note in passing that the number of Kalkatungu and Warluwara items compared was quite large - 900.

### 7.3. KALKATUNGU AND COMMON AUSTRALIAN

Capell (1956, 1962) pointed out that a number of roots are found in every area (but not in every language) of Australia. He called this common stock 'Common Australian'. Capell (1962:13) produced a map showing the relative concentration of this common stock in various areas. The map demonstrates a number of interesting features such as the fact that the highest concentration of CA vocabulary lies in the desert regions of Western Australia.

The distribution of CA and its significance is outside the scope of this study, but since Capell's map does not show particular languages, it is not possible to ascertain the percentage of CA material Capell claims to have found in Kalkatungu, and I therefore include below my estimate. On Capell's map Kalkatungu lies on an isogloss dividing a less than '40%' area (to the north and west) from a '40-49%' area (to the south and east). According to my calculation, Kalkatungu contains 50 per cent of the items on his list.

### 7.4. SOME PHONOLOGICAL DEVELOPMENTS IN THE HISTORY OF KALKATUNGU

The phonological systems of Australian languages can usually be classified as normal or aberrant. The "aberrations" are mostly phonotactic and consist of loss of original initial consonants, which disturbs the normal CVCV shape of roots. Other aberrations include loss of an initial syllable to expose consonant clusters in initial position, and metathesis of vowels of initial syllables into the second

syllable as the corresponding glides, changes which result in some languages in some striking initial clusters. For example in Mbara (southern Cape York, Sutton 1976), an earlier puṛi ('fire') appears as ɾwi (with loss of the initial consonant and metathesis of u into the second syllable where it appears as a glide).

As is well known to Australianists, the aberrant languages are concentrated in northern Cape York, southern Cape York (Sutton ed. 1976) and central Australia (Hale 1962) with a notable pocket in New England (Crowley 1976). A few languages outside these areas exhibit some aberrations, one of these being Kalkatungu. Kalkatungu has suffered some loss of initial consonants and some loss of initial syllables, but the changes have not been so radical nor so extensive in the lexicon to have produced the very aberrant effect one gets in Arandic or some of the Cape York languages.

In general the phonological aberrations seem to represent a move to a more marked state and one's first impulse is to look for an historical connection between the various widely separated languages exhibiting what appears to be scant regard for recent theories about phonological universals. However, it seems that these deviations from CVCV-type structures were probably triggered in most cases by a shift of stress from the first to the second syllable. Given this stress, the deviations from CVCV are not really so unnatural as can be readily observed in the speech of English speaking children. In any case it quickly becomes obvious that there can be no historical connection between these phonological developments in different parts of the continent. The distances involved are great; by and large there are no aberrant languages between these centres of innovation, and more conclusively, the aberrations can be shown to have taken place in situ since they often affect locally distributed words which show intact reflexes outside the affected area and deviant forms within. Some of these forms could be borrowings from an intact neighbour into an aberrant language with modification to adapt the borrowing to the aberrant phonotactics but this will not account for all cases.

Kalkatungu of course is not too far removed from the Arandic group, but it does share much more vocabulary with the phonologically intact language, Yalarnnga, than with any other language. This suggests that it has been contiguous with Yalarnnga for some time. It does not discount the possibility that Kalkatungu was in contact with Arandic at some past time.

The following notes exemplify some of the changes that have taken place in the history of Kalkatungu.

## Loss of Initial Consonant

'a fight'	ɭarkun	(Mayiyapic Q.)	arkun
'faeces'	kuna	(Yalarnnga Q., etc.)	(w)unu
'meat'	wari	(Yalarnnga Q.)	ati
'sit'	ɲina	( " )	(j)ini
'eat'	ɲari(li)	( " )	aɻi(ɭi)
'where'	ɭarV	( " )	ara
'cheek'	ɲuku	(Pitjantjatjara W.A.)	(w)uku
'big'	puɭka	( " )	(w)uɭku-uri('long')
'ant'	ɭiɭa	(Pitta-Pitta Q.)	(j)ɭi
'louse'	*kulu	(proto-Ngayarda W.A.)	(w)ulu
'be ill'	yaŋka	(Yalarnnga Q.)	aŋka
'enter'	*ɲaɻa	(proto-Paman, Q.)	aɻa
'ceremonial knife'	kuji, kujana	(Pitta-Pitta Q.)	(w)ujin
'teeth'	yaɻiɭa	(Mayikulan, Q.) (Wunamara, Q.)	aɻiɲa

The bracketing of initial j and w in the above examples is to draw attention to the fact that the initial dropping is phonological but not entirely phonetic. The phonetic facts are that w is optionally pronounced before u at the beginning of words and similarly j before i. Since initial a occurs, I phonemicise words like [unu] or [wunu] and [ini] or [jini] as /unu/ and /ini/ respectively and consider that the glides are derivable from the phonemic form. There is no contrast between forms with the glide and forms without.

## Loss of Initial Syllable

'yam'	jaŋkata	(Yalarnnga Q.)	ɲkaa (see §3.2.2.)
'hole'	ɭaŋɻu	( " )	ɲɻuu ( " " )
'you two'	ɲumpala	( " )	mpaja
'stomach'	ɲapura	(Mayithakurti Q.)	putu
'stone'	miɲɻi	(Mayiyapi Q.)	ɲɻia
'hit, kill'	wala-	(Yalarnnga Q.)	ɭa-

## Assimilation

A low vowel in the second syllable has assimilated to the high vowel of the first.

'faeces'	kuna	(many other)	(w)unu
'sit'	Nɻina	(proto C.A.)	(j)ini
'big'	puɭka	(Pitjantjatjara W.A.)	uɭku-uri('long')
'ant'	ɭiɭa	(Pitta-Pitta Q.)	(j)ɭi
'they two'	pula	(Yalarnnga Q.)	puju
'if'	pula	( " )	puju
'stomach'	ɲapura	(Mayithakurti Q.)	putu

### Loss of Medial Consonants

There are some cases of an intervocalic consonant having been lost between identical vowels.

'water'	kunu	(Yalarnnga Q.)	kuu
'camp'	mutu	( " )	muu
'food'	maŋja	( " etc.)	maa
'this'	cala	( " )	caa
'yam'	yaŋkata	( " )	ŋkaa

Independently of this there is a synchronic tendency in Kalkatungu to delete a consonant between like vowels (see §2.13.).

l

There are some instances of l in the sequence V<sub>1</sub>la becoming j:

'if'	pula	(Yalarnnga)	puju
'they two'	pula	( " )	puju
'you two'	ɲumpala	( " )	mpaja
anti-passive	-li	( " )	-ji (l before i)

The direction of the change is apparent from the fact that *pula* 'two' or 'they two' is a widespread form, similarly forms like *ɲumpala* with l are common among Pama-Nyungan languages. Moreover Kalkatungu j corresponds to j in a number of other Pama-Nyungan languages.

Kalkatungu and Yalarnnga both reflect the common Australian form for 'we two' as *ɲali* rather than *ɲali* as expected. The common Australian ergative/instrumental allomorph for vowel stems occurs as *-!u* rather than the expected *-lu*, a feature also found in Walbiri (*-!u*), Wagaya (*-! < \*!u*) and Walmadjari (*-!u*). See §3.2.2. and §3.2.4. Note also the retention of the liquid in the anti-passive of *-la* class verbs. See §4.1.

The following correspondence has also been noted:

VrV <—> Kalkatungu VtV

'meat'	wari	(Yalarnnga Q.)	ati
'stomach'	ɲapura	(Mayithakurti Q.)	putu
'man'	iri	(Yalarnnga Q.)	iti- (ergative stem) juru (nominative)

The number of words affected by initial dropping appears to be only a small proportion of the present day vocabulary. In making this

assessment I am thinking of the small number of words that can be shown to have lost an initial consonant or syllable, and the small number of words that begin with a or with a nasal stop cluster. However, if initial consonant dropping operated to expose an initial high vowel, its effect would not be noticeable.

It is not possible to determine whether initial dropping was conditioned or whether it operated generally. It may have operated generally, but its effect on the lexicon may have been subsequently obscured by massive borrowing from intact languages. It is possible that it was conditioned and that borrowing from intact languages occurred.

It is not possible to set up a series of ordered rules to convert proto-forms into occurring forms, at least not a set of rules that can operate without exceptions. Some ordering is clear however. Assimilation must follow the rule deleting intervocalic consonants between like vowels.

#### Final dropping

Some years ago (Blake 1971b) I suggested that Kalkatungu had lost some final vowels. I made use of this assumption in attempting to explain the curious alternations involved in the case of *-jan* and *-jati* (see §2.10.). As far as I know Kalkatungu did lose some final vowels and my attempt at explaining the alternation of *-jan* with *-aan* and *-jati* with *-ati* is still viable. However, the amount of evidence I have is small. Consider the following cognates:

'fire'	ucan	Yalarnnga	wacani
noun-forming suffix	-ncir	"	-nciri
'wallaroo'	ɲarkun	"	ɲarkunu
		Mayiyapi	"
'brolga'	kuɭɭuur	Guwa	kuɭɭuru
'snake'	ɭuar	Warluwara	ɭuwana
		Bularnu	ɭuwati
'fruit' (sp. unknown)	pipin	Yalarnnga	pipinu
participle	-nin	"	-pana

-nciri, ɲarkunu and kuɭɭuru are not of much help in establishing vowel loss in Kalkatungu since they could exemplify an extra vowel that has been added to avoid a word-final consonant. Yalarnnga and Guwa do not allow final consonants, but Mayiyapi does. wacani, ɭuwati and pipinu do provide evidence for vowel loss in Kalkatungu but unfortunately they are the only examples I can find. One feature of Kalkatungu that suggests vowel loss is the fact that a small number of words

occur with and without a final vowel e.g. puɨur or puɨura 'good' (see §2.6.) and a large number of words lose their final vowel in fluent speech e.g. -ti stem verbs (see §4.1. and §2.13.).

As noted in §2.10. the 'having' suffix appears as -jan with vowel stems and aan with consonant stems while the intransitiviser appears as -ɨati with vowel stems and -ati with consonant stems. If these consonant stems once had an extra a, the alternations could be explained by reference to the rule that deletes consonants between like vowels:

\* arkuna + jan > arkunajan > arkunaan  
 \* ɨaila + ɨati > ɨailaɨati > ɨailaati

However, we are left with the difficulty of explaining why the vowel a should be involved. a is the most frequent vowel. The pattern could have been established with a stems and extended by analogy. Another difficulty is the fact that the suggested rules yield a variant aati not ati.

#### 7.5. PRONOUNS

It is possible to make some assumptions about earlier forms of Kalkatungu pronouns from internal reconstruction based on a comparison of the free and bound forms and from comparative reconstruction embracing Yalarnga and to a lesser extent other Pama-Nyungan languages.

First of all let us have a look at the free pronouns in Kalkatungu and Yalarnga.

	K	Y
Sing. 1	ŋai	ŋia
2	ɲini	ɲawa, ɲu-
3	a <u>ɨ</u> a	! <u>ɨ</u> aja
Dual 1	ŋa <u>ɨ</u> i	ŋa <u>ɨ</u> i
2	mpaja	ɲumpala
3	puju	pula
Plur. 1	ŋata	ŋawa
2	ɲutu	ɲa <u>ɨ</u> a
3	<u>ɨ</u> ina	<u>ɨ</u> ana

K ŋai and Y ŋia can both be derived from \*ŋaja. An unstressed sequence -aja easily becomes ia, -aj or ai and there are examples of this in K, Y and other Australian languages.

In the second person singular K has ɲini, ergative ɲinti and dative ɲunku. Y has nominative ɲawa and oblique stem ɲu-. The second person singular root in Pama-Nyungan is commonly ɲin-, ɲun, ɲin, ɲun, ɲin or ɲun. The second syllable of the second person singular is most often



a syllable that appears to have been originally an ergative so that we find nominative forms like *puntu*. Dixon (1977) argues that most Australian languages at some stage of their development augmented any monosyllabic roots they had and augmented monosyllabic singular pronouns by adding the ergative or a phonological filler *-pa*. Yalarnnga seems to reflect *-pa* in the lenited form *-wa*. The stem *na*, which also appears in the plural, is unusual. In any case the development here is peculiar to Y. K has a more normal second person form, *nini*. The second syllable appears to have resulted from the addition of *-na* or *na* with subsequent assimilation (*pin + na > pina > nini*) or simply from the repetition of the stem vowel. The suggestion that *-na* or *-pa* may have been added requires some justification. Blake (1979:347) elaborates Dixon's thesis that monosyllabic pronouns were augmented by claiming that *-na* or *-pa*, the common Australian accusative, was also used as an augment. This certainly seems to have been the case in Nyunga (s-w W.A. O'Grady et.al. 1966:131) and Kunggari (Blackall Q. Breen field notes) where first and second singular pronouns are as follows:

#### Nyunga

	first singular	second singular
S <sub>1</sub>	na <sub>1</sub> pa	nini
A	na <sub>1</sub> cu	puntu
P	na <sub>1</sub> pa	nini

#### Kunggari

	first singular	second singular
S <sub>1</sub>	na <sub>1</sub> pa	ina
A	na <sub>1</sub> tu	inti
P	na <sub>1</sub> pa	ina

As can be seen by comparing the S<sub>1</sub>/P first and second person forms in Nyunga, it looks as if *nini* could arise from *\*pin + N<sub>1</sub>pa > \*pina > nini* (where *N<sub>1</sub>pa* represents a laminal nasal that is reflected as *n* or *ɲ* as outlined in Dixon 1970). The K ergative of the second singular is *pinti* which seems to reflect assimilation from *\*-tu* to *-ti* as posited for *nini*. The dative *punku* obviously contains the common Australian dative marker *-ku*, so it looks as if we have regressive assimilation in this instance.

I am uncertain how the third person singular forms are related. K has *a<sub>1</sub>pa* as an oblique stem with an ergative *lii*. Y has *!aja*. Although these forms look similar they may not be related. K *a<sub>1</sub>pa* must derive from *Ca<sub>1</sub>pa* by initial dropping as in Nhandu a Western Australian language which has *ala* (probably from a demonstrative root *\*pala*) (O'Grady et al.

1966:122)<sup>1</sup>. The common Queensland third person singular pronoun roots are Nʷu (masculine) and Nʷan (feminine).

The first person dual in Australia is commonly ŋali. K and Y are distinctive in having a dental lateral - ŋal̥i. Note in passing that K has an ergative allomorph -!u presumably from \*!u (see Hale 1976). It is possible that an earlier l split into ɭ (before i), ɭ (before a) and ɭ (before u). The form -!u also occurs in some other Pama-Nyungan languages e.g. Walbiri (N.T.).

The second dual forms probably reflect a proto-K-Y \*ŋumpala. Y seems to have retained the proto-form, while K has lost the initial syllable and changed l (before a) into j. Forms similar to ŋumpala are common among the Pama-Nyungan languages.

The third dual forms seem to reflect proto-K-Y pula with Y retaining the proto-form and K reflecting the l to j change and progressive assimilation. pula is a common Pama-Nyungan form for 'they two'. In eastern Australia it also occurs as a numeral or number marker for 'two'.

In the first person plural the Y form, ŋawa, seems to contain the augment -wa. K has ŋata, but since the corresponding bound form is -ti, it makes sense to posit proto-K \*ŋati and allow for progressive assimilation. Australian languages vary greatly in the way they develop a first person plural from the root ŋa-. K and Y exhibit forms that are not found among other languages in the area.

In the second plural K ŋutu is similar to the likely Pama-Nyungan proto-form \*Nʷura (reflected as ŋuru, ŋura, jura etc.) exhibiting independently attested progressive assimilation and an unexplained hardening of r to t. The Y form ŋala is unexpected and is presumably an innovation.

In the third plural, Y contains the expected Pama-Nyungan form ɭana. K ɭina could plausibly be explained as containing a reinterpretation of unstressed variants of a following a lamino-dental (which produces fronted allophones).

\*ɭana → \*[ɭena]  
\*[ɭena] → ɭina

In sum, the following proto-K forms seem likely:

<sup>1</sup>If the form ɭaa which I have given tentatively as third singular nominative is genuine, it could derive from \*ɭaja by the independently attested rule of deleting consonants between like vowels.

Sing.	1	*ŋaja
	2	*ŋina
	3	(*Ca <sub>l</sub> a oblique stem)
Dual	1	*ŋa <sub>l</sub> i
	2	*ŋumpala
	3	*pula
Plural	1	*ŋati
	2	*ŋura
	3	*tana

### 7.6. BOUND PRONOUNS

K has bound pronouns while Y has virtually none. Y has only one bound pronoun form viz. -ŋu used to mark the plural S<sub>1</sub> or A of imperatives. It presumably reflects the proto-Pama-Nyungan form \*N<sup>v</sup>ura. It is noteworthy that it is the only example of an accusative system of marking anywhere in the language. Since -ŋu is the only bound pronoun in Y and since it is transparently derivable from \*N<sup>v</sup>ura, we do not have much that looks like vestigial evidence of a once elaborate set of bound pronouns. Rather it seems that -ŋu is an isolated innovation and we suggest that K developed bound pronouns while Y did not.

If we look at the distribution of bound pronouns in Australia (see Blake 1979), we find that Y is on the edge of a swath of languages in which there are no bound pronouns while K is on the edge of a bloc that have bound pronouns. The continuous nature of the 'bound' and 'boundless' areas suggests that the growth or loss of bound pronouns is diffusible. In Blake 1979, it is suggested that since for the most part the 'boundless' languages lack vestigial evidence of bound pronouns, they never ever had them. It is noteworthy too that the languages in which the bound pronouns are most transparently derives from the free ones tend to be found along the edges of the 'bound' areas. In general then, we see evidence of a development from (a) languages with no bound pronouns, (b) languages with transparently derived pronouns, (c) languages with bound pronouns that are quite different from the corresponding free ones, to (d) languages with bound pronouns that exhibit fusion with one another and with other particles (typically non-Pama-Nyungan).

It is interesting then to look at the bound pronouns in K against this suggested line of development.

K employs the following bound pronouns in independent indicative and interrogative clauses:

		S <sub>1</sub> /A	P
Sing.	1	-∅	-ŋi
	2	-n	-kin
	3	-∅	
Dual	1	-l	-la
	2	-ŋu	
	3	-(mu)ju	
Plural	1	-t	-ta
	2	-ŋut	
	3	-na	

With the third dual, -muju is used in the present tense and -ju elsewhere. -∅ in the first and third singular of the S<sub>1</sub>/A column indicates the absence of an overt form in those paradigms where the use of a bound pronoun is obligatory viz. with -mina (imperfect) and -mpa 'perfect'. The blanks in the P column, simply mean that no form has been observed. There are no paradigms where the use of a bound pronoun for P is obligatory in an independent clause.

If we compare the bound S<sub>1</sub>/A with the free forms, we can see some lines of derivation:

Sing.	1	ŋai	
	2	ŋini	
	3	-∅	
Dual	1	ŋali	
	2	mpaja	<*ŋumpala
	3	puju	<*pula
Plural	1	ŋata	<*ŋati
	2	ŋutu	
	3	ina	

Leaving aside the second dual and plural, the bound forms can be derived from the free by deleting the first syllable (a process elsewhere attested in Australia) and deleting the last vowel if it is -i. The change from l to l in the first dual is simply a consequence of the phonotactics. K does not allow word-final dentals. Why the second person non-singular forms make use of the first syllable of the free form or proto-form is not clear.

Let us now look at the S<sub>1</sub>/A bound pronouns that occur with the complementiser a- :

Sing.	1	laa
	2	ani
	3	ai
Dual	1	ali
	2	anu
	3	ailu
Plural	1	ati
	2	anur
	3	aina

laa for the first singular is clearly suppletive. -ni and -li are derived from the corresponding free forms by dropping the first syllable. -ti presumably derives from a proto-form \*nati by the same process. As I suggested above, the current free form for first person plural can be derived from \*nati by an independently attested rule of progressive assimilation. In the case of the bound  $S_1/A$  pronouns used in independent clauses, we needed to posit a rule to the effect that a final -i was deleted. Such a rule would be inhibited here as a- plus a bound pronoun constitutes a separate phonological word and the minimum number of syllables required for a word is two.

The forms -lu (third dual) and -na (third plural), also reflect the second syllable of the source pronouns. Note however that they appear to be suffixed to ai rather than a-, ai being the third singular form. I cannot guess the provenience of the -i. Note that the change  $l > j$  is not attested in this paradigm. It may have been inhibited by the preceding -i. There are too few examples of the change for the necessary environment to be ascertained. Note that the second dual and plural forms are the same as those found in independent clauses.

There are some other  $S_1/A$  bound pronouns. Let us consider the imperatives:

$V_1$	sing.	in $\eta$ ka-ja-n	'go!'
	dual	in $\eta$ ka-ja-mpi	'You two go!'
	plural	in $\eta$ ka-ja-tu	'You mob go!'
$V_t$	sing.	la-ja- $\emptyset$	'Kill!'
	dual	la-ja ku-mpi	'You two kill!'
	plural	la-ja ku-tu	'You mob kill!'

We find in this paradigm two interesting features. First of all we find the 'expected forms' for second dual and plural, -tu representing the second syllable of  $\eta$ utu and -mpi representing the second and third syllables of \* $\eta$ umpala ( $>$   $\eta$ umpaja  $>$  mpaja  $>$  mpija  $>$  mpi). Secondly we find a mysterious element ku- in the transitive imperatives. Note that

singular imperatives with a non-singular P are as follows:

la-ja ku-ju	'You (sing.) kill them two!'
la-ja kina	'You (sing.) kill them!'

It seems that ku is an element connected with transitive clauses and that it attracts the first pronoun irrespective of whether it is A or P. Let us assume earlier sequences with A preceding P such as:

(7.1) \*la-ja ku ø pula  
*kill-imp you them*  
 'You (sing.) kill them'.

(7.2) \*la-ja ku nutu pula  
*kill-imp you:pl them*  
 'You (plur.) kill them'.

If ku attracts the first overt pronoun, then we will have \*kupula yielding kula > kulu > kuju and \*kunutu yielding kutu. This accounts for the fact that ku appears with forms representing S<sub>1</sub>/A and with forms representing P, at least with the imperative paradigm.

At this point we could examine the P bound pronouns, since most of them involve ku.

		Forms used with independent verbs	Forms used with a-	Forms used with the 'lest' construction
Sing.	1	-ŋi	aŋi	kuŋi
	2	-kin	akin	kukin
	3			
Dual	1	-la	akila	kula
	2		akumpaja	kumpaja
	3			ku.. kuju
Plur.	1	-ta	akita	kuṭa
	2		akutu	kutu
	3		a.. kina	ku.. kina

Of the forms in the first column, -ŋi is explicable as a reduced form of \*ŋaya and -ta as the second syllable of ŋata. Note that we posited \*ŋati as a proto-form for the first plural to account for -ti in the second column. -ta could conceivably be a later derivative from the free form. -la is a mystery. Some Pama-Nyungan languages in Western Australia have -la as the first plural bound form. It is probably that -la reflects a free form no longer found in Kalkatungu. It may be an old plural, possibly attracted to the dual by the presence of -l for the S<sub>1</sub>/A form. It could have then been replaced in the plural by a 'new' form -ta. This would explain why we get -ta rather than -ti. However,

all this is rather speculative and I would not want to press it too far. The remaining form in this paradigm, *kin*, is somewhat mysterious. It also appears with the complementiser *a-* and a glance at this paradigm reveals a possible *ku* in every form but the first singular.

Since *akumpaja* and *akutu* seem so clearly to contain *ku*, it is of some interest to see if we can determine whether the other forms contain *ku*. If we take the proto-form of the first plural to be *ɲati* as suggested earlier, we can account for *ki* rather than *ku* in the second singular, first dual and first plural along the following lines:

*ku- <i>ɲini</i>	>	<i>kuni</i>	>	<i>kini</i>	>	<i>kin</i>
*ku- <i>ɲali</i>	>	<i>ku<sub>l</sub>i</i>	>	<i>ki<sub>l</sub>i</i>	>	<i>kil</i>
*ku- <i>ɲumpaja</i>	>	<i>kumpaja</i>	>	<i>kumpaja</i>	>	<i>kumpaja</i>
*ku- <i>ɲati</i>	>	<i>kuti</i>	>	<i>kiti</i>	>	<i>kit</i>
*ku- <i>ɲutu</i>	>	<i>kutu</i>	>	<i>kutu</i>	>	<i>kutu</i>

The three steps here are: (a) delete first syllable of pronoun, (b) *u* > *i* /  C<sub>0</sub> i, (c) *i* >  $\emptyset$  /  #. Steps (a) and (c) are independently attested. Step (b) occurs in *ɲin-ku* > *ɲunku*. I am unable to account for the fact that assimilation is sometimes progressive and sometimes regressive, but in general the syllable that was stressed was affected by the assimilation, at least with bound pronouns. Of course the rules given above do not give the correct forms for first dual and first plural. We need to add the forms used with independent verbs:

<i>kil-la</i>	>	<i>kila</i>
<i>kit-ta</i>	>	<i>kita</i>

This may seem rather ad hoc, but we did find some independent reason above for positing *-la* as a form that had shifted to first dual and *-ta* as a new form for first plural. The suggested lines of development work fairly well in accounting for *ki*. The exception is *kina*. The rules given above will not produce the correct form. A plausible derivation would be *ku-ɲina* > *kitina* > *kina*, but there is no obvious reason for the retention of the first syllable of the pronoun.

The forms used for P in the 'lest' construction are probably the same forms as are used with independent verbs but suffixed to *ku*. This is not perfectly clear since we do not have any second dual or plural forms available in the independent verb paradigm. The fact that we have *kula* and *kuta* in the first dual and plural rather than *kila* and *kita* certainly suggests a transference of *-la* and *-ta* from the independent verb paradigm.

The 'lest' construction remains somewhat mysterious. Remember (§4.4.) that there is a complementiser *unu* used where *S<sub>1</sub>* is first or second person, *ku<sub>nu</sub>* where A is first or second person and *ana* where *S<sub>1</sub>*

or both A and P are third person. *kuḡu* doubtless represents *ku* plus *uḡu*, but the relationship between *uḡu* and *ana* remains unexplained. Nor is it clear why no complementiser appears when P is first or second person and A third person (see examples in §4.4.). It is also noteworthy that two examples of *ku* may appear in one clause,

- (7.3) *rumpi ḡai iuma kuḡu-n kina*  
*fear I break lest-you them*  
*'I'm afraid you might break them'.*

Altogether we have the following schemas:

$V_1$	<i>uḡu</i>	$S_1(1,2)$	
$V_t$	<i>ku uḡu</i>	$A(1,2)$	<i>ku P(3)</i>
$V_1, V_t$	<i>ana ku</i>	$S_1/A(3)$	$P(3)$
$V_t$	<i>ku</i>	$P(1,2)$	
$V_t$	<i>ku</i>	$A(1) > P(2)$	

Note that *uḡu* appears only where  $S_1$  is first or second person or where A is first or second and P third. *ana* appears only where  $S_1$  or both A and P are third. In other instances no *ana* or *uḡu* or any corresponding element is used. In the imperative we found that *ku* was used in transitive as opposed to intransitive clauses. This is true with the 'lest' construction except that *kuju* and *kina* represent  $S_1$  in the third person:

- (7.4) *rumpi ḡai ana kuju ḡuji*  
*fear I lest they:2 fall*  
*'I'm afraid they'll fall'.*

However, *kuju* and *kina* are also exceptional in that they indicate P in clauses with *kuḡu* giving two instances of *ku* in the one clause:

- (7.5) *rumpi ḡai laa kuḡu-n kuju*  
*fear I kill lest-you they:2*  
*'I'm afraid you'll kill them'.*

A synchronic analysis would have to recognise the *ku* of *kuḡu* as a separable element associated with certain transitive clauses. On the other hand, *kuju* and *kina* seem to have become unanalysable pronouns functioning as  $S_1/A$  or P. Diachronically they contain *ku* and they must have started out as A or P forms or both. The explanation for this would be along the same lines indicated for the imperative (see above). *\*iḡana/iḡina* and *\*pula/puju* would have been attracted to *ku* whenever they were next to it. In a clause with a third singular A, which would normally be represented by zero, they would come to represent P. In a clause with third singular P, they would come to represent A:



	A	P			
ku	∅	puju	>	kupuju	> kuju
ku	puju	∅	>	kupuju	> kuju

It seems that *kuju* and *kina*, since they must have represented both A and P at one stage, were then generalised to S<sub>1</sub> in 'ana' constructions (and also in *-man̄i* constructions - see §4.2.5.). The appearance of *kuju* and *kina* in clauses with *kuṅu* (see example above) also suggests they have become simple pronoun forms rather than combinations of *ku* and a pronoun.

### 7.7. THE CASE SYSTEMS

To appreciate some features of the development of the Kalkatungu case system, it is useful to consider the Yalarnnga system at the same time. The case systems of Kalkatungu and Yalarnnga exhibit a number of close similarities. With nouns, each language distinguishes disyllabic stems, longer stems and kinship stems. Kalkatungu, unlike Yalarnnga, has word-final consonants and therefore has consonant stems. The following table lists the case forms:

	Disyllabic Vowel Stems		Longer Vowel Stems		Kin		Consonant Stems (Kalkatungu only)
	K	Y	K	Y	K	Y	K
Nom.	-∅	-∅	-∅	-∅	-∅	-∅	-∅
Erg.	-ŋku	-ŋku	-ṭu	-ju	-ji	-ḷu	-Tu
Loc I	-pia	-ŋka	-ṭi	-ja	-ŋu	-ŋuṭa	-pia
Dat.	-V(ja)	-u	-V(ja)	-u	-V(ja)	-u	-ku
Purp.	-	-ta	-	-ṭa	-	-ṭa	-
Loc II	-ŋii	-ŋila	-ŋii	-ŋila	-ŋii	-ŋila	-ŋii
Caus.	ergative plus -ŋu in both languages						
Abl.	locative I plus -ŋu in both languages						
All I	dative plus -ṅa in K, -wampa (disyllabic), -mpa (longer) in Y						
All II	locative II plus -ṅa in K, locative II plus -mpa in Y						

#### Nominative

No comment required.

#### Ergative/instrumental

In both languages a nasal-stop dissimilation rule operates to produce an allomorph *-ku* for disyllabic vowel stems when a nasal-stop sequence occurs in the stem. Dissimilation rules are fairly uncommon (see Blake, typescript), but nasal-stop dissimilation rules are found in a number of Pama-Nyungan languages e.g. Dyaru (W.A. Tsunoda, p.c.). I take them to be a feature of a remote proto-language retained through Proto K-Y and

into contemporary K and Y. The rule does not occur with every nasal-stop sequence, thus -nti the causative in both K and Y never dissimilates. This morphological conditioning of the dissimilation is further evidence of its relic status.

The allomorph -Tu in Kalkatungu has sub-allomorphs -tu, -ɬu and -cu with apico-alveolar, retroflex and palatal stems respectively.

The allomorph -ju for long stems in Y may reflect a lenited stop. Pama-Nyungan languages tend to exhibit -Tu with consonant stems, and -lu or -ŋku with vowel stems. Where both -lu and -ŋku occur in a language, they are often distributed according to the long versus short stem principle as here. However, while -lu is the expected allomorph with long vowel stems, -ɬu or -cu does occur in a number of languages e.g.: Yulbaridja (W.A. O'Grady et al. 1966), Yuulngu dialects (n.e. Arnhem Land, N.T. - Schebeck 1976). Following Dixon 1970, I take -ɬu and -cu to reflect a laminal -Tʷu, but I have no explanation for -ɬu instead of -lu in Kalkatungu. As I suggested above, Yalarnnga -ju probably represents a lenited -Tʷu since intervocalic lenition of -Tʷ- to -j- is widely attested.

Since K j reflects both \*ɭ and \*j, the allomorph -ji in K used with kinship nouns may reflect \*-ji or \*-li. As can be seen from the table above, Y has -ɭu. That -ji is the basic underlying allomorph in K can be seen from a comparison of the ergative and dative of kinship nouns (and non-singular pronouns):

	i stems	a stems	u stems
	'mother's brother'	'father'	'mother'
erg.	pupi(j)i	kuɭa(j)i	maɬuju
dat.	pupii	kuɭaa	maɬuu

The distribution of these allomorphs can be accounted for by positing -ji as the basic allomorph for the ergative and -a as the basic allomorph for the dative. A rule of assimilation with high vowels will then account for all allomorphs. The noun ɬuku 'dog' has an ergative ɬukuju, maɭa 'mob' has maɭajji and jur- 'man' has iti-ji. This suggests that -ji may once have covered a wider range of stems than is now the case.

#### Locative

Just as -lu, -ŋku and -Tu are common allomorphs of the ergative in Pama-Nyungan, -la, -ŋka and -Ta are common allomorphs of the locative. Yalarnnga exhibits -ŋka with disyllabic vowel stems while Kalkatungu has -pia. However, Kalkatungu has -ŋka with kuu 'water' (kuuŋka) and with ŋjuu 'hole' and mpuu 'rotten' (ŋjuuka and mpuuka with nasal-stop

dissimilation). This is pretty clear evidence that proto K-Y had \*-ŋka and that K has innovated with -pia, retaining -ŋka on a few common words.

The allomorph -ji for longer vowel stems in K is an innovation. The allomorph that we would expect, given that the ergative for long vowel stems is -ju, is -ja and this does occur with the ligatives -wa and -ja (see §5.8.). -ta occurs with ucaŋ 'fire' and the participle -pin, and -ja occurs with ulaaŋ 'high (of sun)', giving further vestigial evidence of an earlier -ja (< \*ta?).

Y has -ja with long vowel stems, which is expected, given -ju as the ergative.

Both K and Y have -ŋu as the locative for kinship nouns (and with pronouns) but Y has an additional element -ja. -ja occurs as a marker of the purposive in Y and the two functions may be related. -ta is of course an expected locative allomorph and in some Pama-Nyungan languages forms such as -ta, -la and -ŋka frequently have purposive type functions.

In K the locative allomorph -ŋu appears with jur- 'man' (jur-ŋu) and juku 'dog' (jukuŋu) and occasionally with other animate nouns.

The allomorph -la occurs with kua 'creek' and -lu with muu 'camp' (presumably the vowel of the suffix has assimilated to the stem vowels). -la is an expected locative allomorph for long vowel stems in Pama-Nyungan languages.

#### Dative

The basic allomorph for vowel stems seems to be -a (see above under ergative). The allomorph with consonant stems is -ku, the common Australian dative marker. ku often lenites to -wu following vowel stems and indeed this appears to have happened in Y where the dative is -(w)u. Y also has a benefactive -ja which may derive from a locative form. As noted above K retains -ta as a relic form of the locative.

The vowel stem allomorph in K (-a or perhaps -V by internal reconstruction) is unexpected. Since -ku appears with consonant stems, we would expect to find -wu or possibly -wu ~ -wi. In Warramunga (N.T., Hale 1973) complete vowel harmony (but without lenition of the consonant) developed to yield -ku ~ -ka ~ -ki. This could have happened in K with subsequent loss of K between identical vowels (see §7.4.). Or perhaps we once had forms such as:

'spouse'	*kuŋi-ku	leniting to	kuŋiwu
'kangaroo'	*macumpa-ku	" "	macumpawu
'spider'	*kupu-ku	" "	kupuwu

The w in macumpawu and kupuwu would not have been significant (given the present-day phonotactic system) and they could have been

reinterpreted to macumpau and kupuu. As a further step we could posit loss of w in kuŋiwu by analogy. iwu is a very unusual sequence in K. I'm not certain that I have any examples of it, though I would think it could occur. The only problem with this argument is that we have to posit complete vowel harmony for the dative but not for the '-ji ergatives'.

Note on maa, ati.

maa 'vegetable food' and ati 'meat' have distinctive paradigms:

	maa	ati
ergative	maa <u>ɲ</u> u	ati <u>ŋ</u> u
locative	maa <u>ɲ</u> a	ati <u>ŋ</u> a
dative	maaci	ati <u>ŋ</u> ci
	or maaciwa	or ati <u>ŋ</u> ciwa
	maacuwa	ati <u>ŋ</u> cuwa

It is not possible to explain why just these two nouns have related paradigms. Certainly it seems that we have yet another example of common nouns retaining relics of an earlier system. However, we can see why one paradigm has a nasal and the other hasn't. The Y form for food is maŋɲa. Presumably it was also the proto-K form and this caused dissimilation of the nasal-stop cluster in the suffix. maŋɲa would have become maa by the rule that deletes consonants between like vowels.

The locative II in K is -ŋii and in Y, -ŋila. -ŋii is not a common Pama-Nyungan form but was probably a feature of proto-K-Y or an early borrowing from one to the other. It is fairly well integrated into the case system of both languages, as it forms the basis for the allative II forms. The element -la in Y may be a reflex of the common Pama-Nyungan locative allomorph -la.

One of the striking parallels between the K and Y case systems is the way the causal, ablative, and allative II case forms are derived. In both languages the causal and ablative are derived from the ergative and locative respectively by the addition of -ŋu, and in both the allative II is derived from the locative II by the addition of augments. The -ŋu that is used to derive the causal and ablative forms can plausibly be related to the relative pronoun ŋu in K. For example, something that is from X can be considered something that was at X. The causal function is often expressed in Pama-Nyungan languages by the instrumental, so it is not surprising to see a causal form derived from an ergative/instrumental. One would assume that the same -ŋu is used here in deriving the ablative. The method of deriving the ablative and causal from the locative and ergative/instrumental respectively, while not

being too peculiar in itself, is a feature peculiar to K and Y. It could be a feature of the proto-language, but the exact parallelism looks suspiciously like the result of influence from K to Y or vice versa.

It is interesting to note that the allative I in K is formed by the addition of *-na* to the dative. This *-na* may be a reflex of the common Australian accusative marker *-Nva* which shows up in K as *-na* suffixed to *-nu* in certain relative clauses (see §5.11.). A few Pama-Nyungan languages form allatives by augmenting the dative but I am unable to generalise about the source of the augments. The augment used in Y (*-mpa*) may be of locative origin; a few Pama-Nyungan languages have locative allomorphs of this form.

The parallelism between the formation of the allative II from the locative II is striking and since the formation is peculiar to K and Y and since different augments are used in each language, it seems that the principle has diffused from one language to the other.

#### 7.8. OTHER MORPHOLOGY

Except in case marking, K morphology consists largely of idiosyncratic forms and comparison with Y is of limited use.

The tenses in Y are *-ma* present, *-mu* past and *-mi* future. K has *-o*, *-na* and *mi* respectively. *-na* is attested elsewhere as a past tense form and *-mu* is more likely to be an innovation. The series *-ma*, *-mu* and *-mi* appears to have been built up in Y with a common element *m*. K *-mi* may be a borrowing from Y. *-ma* marks the present tense in the Arandic languages (Strehlow 1943:312, Yallop 1977:49).

K has a number of verb morphemes containing the sequence *nc*, a sequence found in parallel functions in Pitjantjatjara, Walbiri, etc. Some of these are paralleled in Y:

purposive	K	<i>ncaaja</i>	Y	<i>ncat̪a</i>
continuing		<i>ncaan̪i</i>		-
habitual		<i>-ncan̪u</i>		<i>nan̪u</i>
participial		<i>-nin</i>		<i>-pana</i>
noun forming		<i>-ncir</i>		<i>-nciri</i>

Y *ncat̪a* is built up from *-nca* plus the purposive *-t̪a*. Y appears to have simplified the *nc* cluster in *ncan̪u*, since it exhibits *nan̪u*. In K the nasal-stop dissimilation rule operates with the *nc* series, but in the case of the participle we find *-nin* as the basic allomorph and *-cin* with nasal-stop stems. Presumably *-nin* derives from a form with a homorganic nasal-stop cluster as does the corresponding Y form. The discrepancy in the vowels of *-nin* and *-pana* is paralleled by the forms

for 'they': K - *ɬina*, Y - *ɬana*. The widespread Pama-Nyungan form is *ɬana* (or *cana*). The appearance of -i- in K can be explained as a reinterpretation of the fronted allophone of a (i.e. [ɛ]) we would expect following the laminal. Taking this as a model, we can suggest the original vowel of *ɬin*: *ɬana* was a. If the final vowel was lost in K as suggested in §7.4., then the proto participle was probably \**ɬcana*.

It is interesting to note that the form -(*ɬ*)*cama*- in K, which is used to indicate a dative relationship in the verb, parallels the Y reflexive/reciprocal in form if not in function - *ɬama*.

TEXTS

'MY WIVES AND CHILDREN'

MICK MOONLIGHT

ḡai uḡantiji-ḡa maḡapai-i maḡḡa-a, ḡa-ḡu ḡaur maḡiji maḡaḡi-  
*I have-past woman-dat mob-dat I-erg kid get hand*  
*'I had a number of women. I got ten children*

ḡaraḡa maḡaḡi-ḡaraḡa. puḡur ḡaur ḡa-ci, ḡa-ci kuḡi puḡur.  
*other hand other good kid me-dat me-dat spouse good.*  
*'(They're) good, my kids (and) my wife is good'.*

ḡai ini kalpuru-ḡi ḡalaḡḡa-a-ḡa-ḡa mu-ḡu uḡi ḡa-ci-ka  
*I live Boulia-loc Yalarnḡa-dat-lig-loc country-loc die me-dat-ḡ*  
*I live in Boulia in Yalarnḡa country. My first*

wacaḡi-ḡa-ḡu-ka maḡapai ḡa-ci uḡi wacaḡiḡa ḡu-wa<sup>1</sup> uḡantiji-ka  
*first-adv-adj-ḡ woman me-dat die first-adv rel-ḡ have-ḡ*  
*woman died. She died, the one I had first.*

ḡaa ḡa-ḡu maḡapai uḡantiji ḡiinta-ḡu, ḡiinta maḡapai ḡa-ḡu uḡantiji.  
*here I-erg woman have middle-adj middle woman I-erg have*  
*Then I got a second woman, I got a second woman.*

kuḡpai ḡa-ḡu piḡapiḡa ḡa-ci-wa-ḡuḡu maḡapai-ḡuḡu ḡa-ḡa  
*three I-erg baby me-dat-lig-caus woman-caus this-caus*  
*I (had) three children by this woman of mine.'*

[What was she like?] miḡaḡara arkunaan paḡkumpiri arkunaan.  
*whatsit belligerent somewhat belligerent*  
*'She was, whatchamacallit, savage, a little bit savage.*

<sup>1</sup> Compare this use of ḡu and the use of ḡu in wacaḡiḡaḡuka. The former is a free form, the latter bound. Note the difficulty in distinguishing the relative marker from the 'adjective-forming' suffix. As things stand, I am taking the free form to be a relative and the bound form to be 'adjective-forming'.

[What did you do with her?] ɲa-tu luaji.  
I-erg relinquish  
'I let her go'.

[Did you have to give her a hiding?] ɲa-tu laji, maɭta-ɲujan ɲa-tu laji  
I-erg hit many-times I-erg hit  
'I hit her. I hit her a lot.

iŋka-ɲa, kaanta-ɲa ɲa-tu la-pin-ka. ɲarpa-ta ini-ka,  
go-past leave-past I-erg hit-part-∅ other-loc remain-∅  
She went, she left with me hitting her. She's living with

ɲarpa-ti ini-ka. ɲarpa-tu uɭantiji-ka.  
other-loc remain-∅ other-erg have-∅  
someone else, with someone else. Someone else has got her'.

[You got a third one?] uɭiŋka-ɲu ɲa-ci maɾapai ɲa-tu uɭiŋka-ɲu  
behind-adj me-dat woman I-erg behind-adj  
'My last woman, the last woman I got,

maɾapai uɭantiji puɕur caa maɾapai-ka, kuntu ɲɭiji-caɲu ɲa-ci.  
woman have good here woman-∅ not scold-habit me-dat  
she's a good woman, she doesn't rouse at me'.

### 'MY RACEHORSES'

#### MICK MOONLIGHT

[Have you ever been to Bedourie?] ɲai paɲiti iŋka-ɲa mara,  
I there go-past indeed  
'I went there all right.

maɭta-ɲujan ɲai iŋka-ɲa pa-uɲa wanaga ɲai unpi-cin jaramana,<sup>1</sup>  
many-times I go-past there-all horse I take-part horse  
I went there lots of times. I used to take a horse [to]

reIsiko:t unpi-cin a-i tɪna. ɲa-ci jaramana, kuntu  
racecourse take-part comp-he run me-dat horse not  
the racecourse to run. My horse, not a

jaɲi-i-ka. ɲa-ci jaramana aɲaɲara ɲa-tu unpi-cin  
white:man-dat-∅ me-dat horse self I-erg take-part  
white man's. I took my own horse to

biduri-ina a-i tɪna. [ɲani-ka ipal?] ipal-ka ɲani-ɲu  
Bedourie-all comp-he run who-∅ name name-∅ who-loc(?)  
Bedourie to run. What was his name? His name was

<sup>1</sup>Apparently an error. wanaga and jaramana should be dative.



ræ:npæn miŋaŋara kuri-kuri ræ:npæn-ka.  
 Ranpan *whatsit red-red Ranpan-ø*

Ranpan (= *Frying Pan?*) and he was, *whatsit, a chestnut*'.

jaramana-ŋara ŋa-tu unpiji ŋa-ci luati ŋa-tu unpi jaramana  
*horse-other I-erg take me-dat two I-erg take horse*

*I took another horse. I took two horses of mine*

ŋa-ci watina ræ:npæn and ŋani-ŋu ipal-ka ŋarpaŋara-ka klipəlæd.  
*me-dat together Ranpan who-loc(?) name-ø other-ø Clipper Lad*

*together, Ranpan and another whose name was Clipper Lad.*

[ipal puɹur] ŋa-tu aɹii ipal aɹaŋara. unpiji ŋa-tu  
*name good I-erg produce name self take I-erg*

*A good name. I made up the name myself. I had*

pauna aŋɹaji ŋa-tu kurpai ŋa-tu ræ:npæn aɹii mile race-kuna.  
*there win(verb) I-erg three I-erg Ranpan put mile race-all*

*three wins.*

*I put Ranpan in a mile race.*

kuntu aŋɹa-ti-ŋa. They bin ŋtui jaramana ŋa-ci  
*not win-re-past pull horse me-dat*

*He didn't win. (The jockey) pulled him*'.

[The jockey was a jani(= white man)?] 'Yeah,

ŋa-tu ŋarpaŋara maniji jani-ka, ŋani-ŋu klipəlæd-ka juu-ntiji.  
*I-erg other get white:man-ø who-loc(?)Clipper:Lad-ø climb-tr*

*I got another white fella who rode Clipper Lad.*

juu-ntiji ŋa-ci jaramana klipəlæd. dʒɔki-ŋara-tu aŋɹa-ŋa  
*climb-tr me-dat horse Clipper:Lad jockey-other-erg win-past*

*He rode my horse, Clipper Lad.*

*The other jockey won*

luati-ŋujan. ŋa-tu maɹɹa ŋɹia aŋɹaji. [Did you train the horse?]  
*two-times I-erg much money win*

*twice. I won a lot of money.*

ŋa-tu aɹaŋara ɹunti-cin jaramana. wakini-maŋci<sup>1</sup> ŋa-tu ɹudu-ɹunti-cin,  
*I-erg self run:tr-part horse turn-tr I-erg ? -run:tr-part*

*I trained the horse myself.*

*I used to run him around,*

unpi-cin ŋa-tu ŋaiŋi-ŋaiŋi laa curka-ɹunti curka-ɹunti-cin  
*take-part I-erg late-late comp:I ? -run:tr ? -run:tr-part*

*I'd take him out of an evening to trot him.*

*I'd trot him,*

ŋa-tu kuntu ŋa-tu paŋcai-cin ɹunti-cin, ŋa-tu paɹku curka-ɹunti-cin  
*I-erg not I-erg hard-part run:tr-part I-erg little ? -run:tr-part*

*I didn't gallop him hard, I'd just trot him a bit*'.

<sup>1</sup>-maŋci seems to be a causative reflexive 'make him turn himself', the -ŋci being the same as the one noted in note 2, p.154.

[Was Clipper Lad a chestnut?] miŋaŋara paɭkumpiri braʊn. ŋa-ɬu maɭia  
*whatsit little brown I-erg many*  
*'He was, whatsit, bit brown. I had a lot*

jaramana ŋa-ci-ka uɬantiji maɭia uɭi waŋaka-ɬu kaɬir-iti.  
*horse me-dat-ø own many die sun-erg grass-priv*  
*of horses but they died with the sun and lack of grass'.*

## 'MAGPIE'

## LARDIE MOONLIGHT

This text exists in three versions, one given by Mick Moonlight, the other two by Lardie Moonlight. The version transcribed here is the one given by Lardie Moonlight to Gavan Breen.

naa-ka kuraɬapu juu-ŋa ɬuni-ŋa kaɬunkara-ɬuŋu ŋɬia-aŋa a-i  
*the-ø magpie rise-past fly-past dust-causal hill-all comp-he*  
*'The magpie flew up from/because of the dust to a hill to turn*

ŋampuwakini. kuɾicicin ini-ŋa pirina ŋɬia-pia. mpati-ŋa  
*turn:around peewee be-past on hill-loc call-past*  
*his back. The magpie-lark was on the hill. He (the magpie)*

pirina waɬara-ntiji macumpa katii-pin.  
*up come:out-tr roo cover-part*  
*called out and made the kangaroo, who was buried, come up out (of the dust).*

kuraɬapu ɬuni-ŋa ŋɬia-aŋa waɬara-ŋɬi-ji-caaja. uɾumpa-ŋa  
*magpie fly-past hill-all come:out-tr-a/p-purp loud:call-past*  
*The magpie flew to the hill to make him come out. He called out,*

ŋampuwakini-ŋa (ŋɬia-kuŋu)<sup>1</sup>, ŋɬia-pia kaɬunkara-ɬuŋu.  
*turn:around-past hill-caus hill-loc dust-caus*  
*having turned around on the hill from/because of the dust.*

waɬara-ŋci-ji-tu, piŋɬa-cama-ti-tu maɭia-ŋa  
*come-out-?2-imp-you:pl spread-tr-re-you:pl many-adv*  
*Get up, you mob! Spread out in great numbers.*

<sup>1</sup>I presume ŋɬia-kuŋu is given in error for ŋɬiaɬia, the causal probably anticipating the causal of kaɬunkaraɬuŋu.

<sup>2</sup>The function of -ŋci is clear from the passage. It is a reflexive and gives to waɬara 'come out, emerge' the sense of 'get up'. Thus waɬaraŋci would be like the Italian verb alzarsi 'to get up' where -si is reflexive. However, waɬara is not transitive like Italian alzare 'to raise' and in theory requires transitivising with -ŋcama before it can be made reflexive or reciprocal by -ti. -ŋci then is in lieu of the expected -ŋcama-ti-, which does occur in the next word.

wajara-nci-ji-tu-ka      kajir-ku a-ni      ari-li a-ni      pukuai  
*come-out-?-imp-you:pl-ø grass-dat comp-you eat-a/p comp-you crawl*  
*Come out and eat the grass, and crawl to various*

muu-ɲara muu-ɲara a-ni      iŋka      pirki-ɲara      pirki-ɲara,  
*camp-one camp-other comp-you go bloodwood-one bloodwood-other*  
*places, and go to various trees, and to various rivers,*

kua-ɲara kua-ɲara a-ni      iŋka a-ni      unja-ji      kajir-ku.  
*river-other river-other comp-you go comp-you graze:on-a/p grass-dat*  
*and go and eat (or graze on) the grass.*

ɲaliɲali, ɲarkun-ka, macumpa, utiŋar, maɲari, curujan-ka, iuar  
*roo:rat wallaroo-ø kangaroo emu goanna echidna-ø snake*  
*Kangaroo rat, wallaroo, kangaroo, emu, goanna, porcupine, snake,*

wajara-ji-tu.  
*come:out-imp-you:pl*  
*come out'.*

*('He made all them animals get up. That's the world'.)*

### 'HOW I WAS BORN'

#### LARDIE MOONLIGHT

ɲa-ci maɲu iti<sup>1</sup>-ɲa      tarki-tarki-tiŋu  
*me-dat mo go-past Tarrki-Tarrki-abl*  
*'My mother went from Tarrki-Tarrki to*

klonkari-ina a-i      iŋka hospital-kuna.      ɲai-jan<sup>2</sup>  
*Cloncurry-all comp-she go hospital-all me-con*  
*Cloncurry to go to the hospital. She had*

ɲai miɲiɲati-ɲa<sup>3</sup>      too quick before he iŋka-ɲa  
*me be born-past go-past*  
*me; I was born went*

longa hospital.      ɲai miɲiɲatiɲa longa  
*crossing. Then they took her in ambulance.*

ɲai-jana unpiji.      ɲaa cuɲu jaun iŋka-ɲa      ɲa-ci  
*me - and take here car big go-past me-dat*  
*And they took me too. The big car went and*

<sup>1</sup>iti normally means 'return, go back'.

<sup>2</sup>The only instance of -jan with a pronoun.

<sup>3</sup>lit. 'become eyes'.

maṭu-u a-i itintiji<sup>1</sup> maṅaṅaan-kuna unpiji  
 mother-dat comp-it take doctor-all take  
 took my mother to the doctor, took her to the

maṅaṅaan-kuna hospital-kuna itintiji a-i ini  
 doctor-all hospital-all take comp-she stay  
 doctor, took her to the hospital so she could stay

mankana a-i ṭail-ati get settled down, get better.  
 later comp-she firm-become  
 (there) a while till she got strong.'

## 'PLANTING'

## MICK AND LARDIE MOONLIGHT

LM ṅaa-ka<sup>2</sup> waṭukatiji ṅa-ci-ka ṭaṅṭu-ka  
 here-∅ dig me-dat-∅ hole-∅  
 'This one here dug a hole for me'.

MM ṭaṅṭu ṅin-ti waṭukatiji?  
 hole you-erg dig  
 'Did you dig a hole?'

LM cipa-a-wa kunka-a-ja-ka  
 this-dat-∅ tree-dat-∅-∅  
 'For this tree'.

MM kunka-a-ja, a-ni ṅkaajimanti?  
 tree-dat-∅ comp-you plant  
 'The tree, are you going to plant it?'

LM ṅaa, ṅa-ṭu pati-na ikii a-i waṭukati-ji  
 yes I-erg tell-past Hickey comp-he dig-a/p  
 'Yes, I told Hickey to dig'.

MM ṅani ṅin-ti pati-ṅa?  
 who you-erg tell-past  
 'Who did you tell?'

<sup>1</sup>itintiji is iti 'return' + nti- but it means 'bring' or 'take' not necessarily 'bring back'.

<sup>2</sup>Since ṭaṅṭu is nominative and waṭukatiji is transitive, there must be an A in the clause. I take it that the third person A is represented by zero and that ṅaa is adverbial. However, it is difficult to be certain that ṅaa is not pronominal with neutralisation of the ergative and nominative.

- LM ikii ḡa-tu pati-na taṅtu-u a-i waṅukati-ji  
*Hickey I-erg tell-past hole-dat comp-he dig-a/p*  
*'I told Hickey to dig a hole'.*
- MM ḡaur?  
*kid*  
*'The kid?'*
- LM ḡa-tu pati-na ḡaur-ka a-i waṅukati-ji taṅtu-u  
*I-erg tell-past kid-ø comp-he dig-a/p hole-dat*  
*'I told the kid to dig a hole'.*
- MM taṅtu-u a-i waṅukati-ji  
*hole-dat comp-he dig-a/p*  
*'To dig a hole'.*
- LM He bin waṅukatiji miḡaḡara-ta  
*dig whatsit-erg*  
*'He dug it with that whatsitsname'.*
- MM puluwara-tu  
*white-erg*  
*'The white one'.*
- LM Yeah, caa ḡa-tu kunka-ka aḡa-nti, caralmaji-mpa ku-ḡku-ka  
*here I-erg tree-ø enter-tr bathe-seq water-erg-ø*  
*'Yeah, I planted it and watered it'.*
- MM caralmaji?  
*bathe*  
*'Watered it?'*
- LM Yeah, waṅara-ḡcii<sup>1</sup> caa-miakaja ciipu waṅara ḡaa then kunka-ka  
*emerge-re this-plur shoot emerge here tree-ø*  
*'Yeah, these shoots come out and then the tree*  
*jaun-aan-ati ḡaa laa kaṅṅa-piriḡa-tati*  
*big-con-intr here then head-up-intr*  
*grows and gets tall'.*

<sup>1</sup>See note 2, p.154.

## 'COOKING BY THE CREEK'

## MICK AND LARDIE MOONLIGHT

LM ɲali ɲini iŋka-ŋa ŋkaɾa-a a-li waɟukati-ji.  
 we:2 you go-past yam-dat comp-we:2 dig-a/p  
 'We went to dig yams'.

ɲin-ti laji macumpa.  
 you-erg kill kangaroo  
 'You killed kangaroos'.

MM ati ɲa-tu laji macumpa.  
 meat I-erg kill kangaroo  
 'I killed kangaroos'.

LM ɲali tuji.  
 we:2 cook  
 'We cooked'.

MM tuji ɲali.  
 cook we:2  
 'We cooked'.

LM kua-la.  
 creek-loc  
 'By the creek'.

MM kua-la ɲali tuji. kapani ɲali ɲini kua-la maɾari-i.  
 creek-loc we:2 cook hunt we:2 you creek-loc goanna-dat  
 'We cooked by the creek. We hunted for goannas down by the creek'.

maɾari-i ɲali iŋka a-li la-ji.  
 goanna-dat we:2 go comp-we:2 kill-a/p  
 'We went out killing goannas'.

LM ajar-ŋa ɲali-ji laji maɾari.  
 one-adv we:2-erg kill goanna  
 'We killed a goanna once'.

BB Lardie iŋka-ŋa ŋkaɾa-a?  
 Lardie go-past yam-dat  
 'Lardie went for yams?'

MM Lardie iŋka-ŋa ŋkaɾa-a.  
 Lardie go-past yam-dat  
 'Lardie went for yams'.

BB ɲini iŋka-ŋa macumpa-a-ja?  
 you go-past kangaroo-dat-ø  
 'You went for kangaroos?'

- MM *ŋai iŋka-ŋa macumpa-a ati-ŋci laa la-ji.*  
*I go-past kangaroo-dat meat-dat comp:I kill-a/p*  
*'I went to kill kangaroos'.*
- BB *lamara iti-ŋa muŋu-uŋa.*  
*then return-past camp-all*  
*'Then (you would) go back to camp'.*
- MM *iti-ŋa ŋali muŋu-una.*  
*return-past we:2 camp-all*  
*'We would go back to camp'.*
- LM *iti-nti ati-ŋci, tuji kua-la.*  
*return-tr meat-dat cook creek-loc*  
*'We would bring the kangaroo back and cook it by the creek'.*
- MM *kua-la ŋali tuji. tuaji ŋa-tu maŋta-puniji waku*  
*creek-loc we:2 cook cut I-erg many-tr skin*  
*'We would cook by the creek. I would cut the (kangaroo) up into*  
*iŋiti-mpa, tuku aŋa-mpa waku-ka.*  
*throw-seq dog gave-seq skin-ø*  
*pieces and throw the skin, give the skin to the dogs'.*

## 'THEN AND NOW'

## MICK MOONLIGHT

1. *ŋa-ci maŋu-ju ŋai aŋiji jamiŋijamiŋi-ti.*  
*me-dat mother-erg me produce Old:Hammerly-loc*  
*'My mother had me at Old Hammerly.*
- !uŋa-pin ŋai mimi-i ŋa-ci maŋu-u. ŋa-ci maŋu-ju ŋai*  
*cry-past I breast-dat me-dat mother-dat me-dat mother-erg me*  
*I used to cry for my mother's breast. My mother used to*
- aŋi-pin mimi. ŋai jarka iŋka-cin laa wani, walipiri-i*  
*give-past breast I far go-past comp:I play humpy-dat*  
*give me milk. I used to go out a long way to play and*
- laa kiakati-ji. ucan ŋa-tu aŋpa-cin pulcuru-ka, aŋi-pin*  
*comp:I make-a/p firewood I-erg gather-past pultjuru-ø make-past*  
*build humpies. I would gather firewood, pultjurus, (and) I*
- ŋa-tu ŋa-ci-wa-ta ucan ŋa-tu kiakati-pin. ucan aŋpa-cin*  
*I-erg me-dat-lig-loc fire I-erg make-past fire gather-past*  
*would make a fire at my (camp). (I) used to gather*
- aŋi-pin walipiri-ti aŋŋii a-i manii, nuu-pin ucan-ta*  
*make-past humpy-loc mouth:loc comp-it burn lie-past fire-loc*  
*firewood and make a fire to burn at the entrance of the humpy*

ilir-pia-ka.  
cold-loc-Ø

*and lie by the fire in the cold'.*

2. kupaṅuru-ṭati-nin ḡai. mu-lu ḡai ini laa.  
old:man-intr-past I camp-loc I remain now  
'I'm an old man. I stop at home now.

bulja-aṅa ḡai iṅka-ṅa. ḡa-ci-ka ṅṭia-ka ṅaa bulja-pia nuu.  
Boulia-all I go-past me-dat-Ø money-Ø here Boulia-loc lie  
I went to Boulia. My money is here in Boulia.

ṅṭia-ana ḡai iṅka-ṅa kalpuru-uṅa. ḡa-lu ṅṭia ḡiṭi maṭṭa  
money-all I go-past Boulia-all I-erg money here mob  
I went to (get my) money, to Boulia. I had a lot of money

uṭantiji caja-ṅa-ka. ḡa-lu maa-cua mani-nti ṅṭia-ka  
have old-adv-Ø I-erg food-dat:Ø get-with money-Ø  
there once. I spent it on food (and) used it

uṭimaji-mpa.<sup>1</sup> ḡai uṭimaji-ṅa ṅṭia-a ḡa-ci-wa-ku.  
consume-perf<sup>1</sup> I consume-past money-dat me-dat-lig-dat  
all up. I have spent all my money'.

<sup>1</sup>-mpa could be sequential or perfect.



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GLOSSARY

KALKATUNGU - ENGLISH

HUMANS

'new born baby'	pirkipirki(jan) (=bloodwood), uṛuma
'baby/young child'	piḷapiḷa
'child'	ḡaur
'boy'	kaṅku, kujiri
'girl'	wampa, wampaampala (CC), piṅa
'boy nearing puberty'	kujiri
'girl nearing puberty'	wampa
'boy after first degree initiation'	japariri
' " " second " " '	upariṅci
' " " third " " '	kaṅṅapianṅu
'young man'	kalpin, kalpinṅuru
'man'	jurū (ergative stem -iti-)
'old man'	kupa, kupakupa, kupaṅuru
'girl after first degree initiation'	iṛaci
' " " second " " '	walumara
' " " third " " '	muṅṅamuṅṅa (see 'old woman')
'woman'	maṛapai
'old woman'	muṅṅamuṅṅa (see above), mucumucu
'widow'	kaṛajau, miṅṅara
'doctor'	maṅṅaan
'man of prowess'	pipani
'unmarried man'	maṅṅawiṅa
'unmarried woman'	juruiti, juriti
'stranger'	ṛaṅkin, mawar, maawar
'friend'	kaaci, ṅimaṅa
'ghost, white man'	jani
'white woman'	miṅṅiṅi

'policeman'	kanimajɪncir
'dead person'	piɪnciɪ
'man' (as object of a woman's affection)	miɪamiɪa

## KIN (See also §5.2.7.3.)

'mother'	maɪu	'mother's father'	caci(ci)
'father'	kuɪa	'father's mother'	papi(pi)
'older brother'	ɪapu	'father's father'	ɲaca(ci)
'older sister'	pua	'man's children'	kunkuɟu
'younger sibling'	uɲkuɪu	'woman's children'	ɲaɪu
'mother's sister'	upaci	'husband'	ɟukuta
'mother's brother'	pupi	'wife'	kuɲi
'father's sister'	ɲucir	'spouse'	markutu
'father's brother'	piɪaɪa	'mother-in-law'	wapuɪu
'mother's mother'	mucu(cu)	'cross-cousin'	muɲɲu
'great grandparent or grandchild'		macara	

Rare forms: maɲu ('mother'), ɲaɲi ('elder brother'), ɟalaca ('mother's brother'), ɲaɲɪar ('mother's sister').

## BODY PARTS

'head'	kaɲɪa, mapa
'hair'	warpaɲɪuru, waɾupu
'grey hair'	katuɪ
'brains'	kuɪu
'forehead'	muɲɪu mirimiri
'face'	muɲɪu (muɲɪu makari 'pretty face')
'temple'	pikaɲɪa, wamiɪa
'eye'	miɪɪi
'eyelid'	miɪpupun
'eyebrow'	miɲankaɾi, milinu
'eyelashes'	miɲankaɾi, milinu
'nose'	iciɪci, ɲuɲiri
'flat nose'	ɲuɲiri ɪalaɪala, iciɪci ɪalaɪala
'mouth'	aɲɪa
'lips'	aɲɪa piɲkur
'tongue'	maɪi
'teeth'	aɪiɲɪa
'cheek'	uku
'jaw'	aɲɪaɲaɪɪa, uku
'chin'	aiɲuku, aɲɪaɲaɪɪa



'beard'	jənpər
'ear'	in̩t̩a, cukucuku (animal not human), pina (rare)
'neck'	kaɭaa, kaɭara
'neck' (front)	ʔakar paŋʔurpaŋʔur
'neck' (back)	ŋampu kaŋʔakaŋʔa
'shoulder'	warku, ŋali, ŋaŋi
'shoulder blade'	waʔu
'armpit'	kicipuɭu
'arm'	juŋʔu
'upper arm'	kupcal
'elbow'	juʔumuku, wapi
'wrist'	muʔu
'hand'	makai
'left hand'	kaɭuruŋu
'hair under arms'	kicipakua
'breast'	mimi, kaŋʔaŋamaŋama ('nipple?')
'chest'	maŋʔar, wakita, ŋamaŋa, ŋaliriŋiri, ŋaʔili ('breast bone'), ʔapuɭakankan ( 'breast bone')
'rib'	ʔalpu, pipali, pipalpipal
'rib bone'	jampi
'stomach'	putu
'navel'	unakali, unaaru, ciku, unukuru
'back'	miŋci
'small of the back'	ŋampu paŋʔu
'buttocks'	muju, ʔunpuɭʔu
'hip'	ŋiaŋʔa
'anus'	miʔiŋʔi
'pubic hair'	ciʔi
'penis'	kaaŋʔu, kapua plural ('erection')
'testicles'	ŋuʔu, maɭiŋuʔu
'vulva'	irila, ʔinti, paŋti, kucira karapulu, kirapu
'groin'	jaɭki
'thigh'	ŋuɭʔu
'knee'	ipuru, puru, purupuru ('knees')
'leg'	wangka
'calf'	maɭa
'shin'	wangka
'ankle'	ŋuku
'heel'	wanʔu
'foot'	ʔapantu
'toes'	piku malaŋŋu, piku maʔu(aŋŋu)

'nails'	piku
'bone'	kunka, waŋka (see 'shin')
'blood'	uɬci
'skin'	waku
'fat'	kuŋɬali
'body hair'	pupcu
'hair'y'	pupculpupcul
'muscle'	miar
'tendons'	ɬarka-ɬarka, wanika
'vein'	pirman
'heart'	wajkarigu, januanti, waira
'lungs'	muri
'liver'	utuŋɬu
'kidneys'	miruŋujan
'bowels/intestines'	unu, uluɬapikuɬu, unu ɕicuru
'milk'	mimi
'faeces'	unu
'urine'	kurkai
'sweat'	aɬcir, aɬcira
'saliva/phlegm'	campar
'nasal mucus, a cold'	ɠunkur
'pimple'	ɠuŋi
'lump'	ɠamun
'boil'	ɬuŋa
'pox'	kacara
'menstruation'	kururumira
'copulation'	mpujumpuju
'sore'	kaki
'scar'	wapaɕu, maɕili, ɠaliɕi
'wound'	kaki
'pain'	ɠkiki
'cramp'	ciɬamanman
'corpse'	piɕcil
'ghost'	jaŋi
'name'	ipal

## ANIMALS

'meat'	ati
'male'	kuɬaaɠu
'female'	kiɕca
	karau

'tail'	kaaŋɬu, jaɾari
'fur'	pupɯ
'egg'	kuɬu, puu
'yolk'	jaɾaɬa (also gives as 'red ochre')
'eggshell'	ɾimpil
'kangaroo'	macumpa
'female kangaroo'	paraŋca
'kangaroo teeth'	iraŋkal
'kangaroo's pouch'	jaɾa
'kangaroo rat'	ŋaɭiŋaɭi, wacin waɬala
'wallaroo'	ŋarkun
'possum'	mirampa, utuman, ɬakamuŋɬa
'water rat'	kiŋɬi, pikura (see next entry)
'bandicoot'	kalkatu, pikura (Roth), cikal, cikali
'bush rat'	kaɭu
'bush mouse'	cirima, pukucur, jatıcı, cuɾukunu
'echidna'	cuɾujan, wacinaan
'bat'	muɾu, pipalɬi
'flying fox'	muɾar
'dog'	ɬuku (not English borrowing - it declines irregularly)
'dingo'	munuɬaŋu
'pup'	waɬamaan
'sheep'	maŋkimaŋki
'horse'	jaraman, jaramana, wanaŋa
'bullock'	pulaka, puliɬi, ŋaŋcarajan, muɭi
'goat'	ŋanikutu
'cat'	puɬikar, paɾapuna
'chook'	kiŋɬi watuwatura, cukucuku

## REPTILES, FISH, ETC.

'goanna'	maɾari, kunakaaca, juɾuɬu, julara, (informants unable to distinguish species consistently)
'prentie'	manpu(ɾu)pari, ɾaŋiraan
'Johnson crocodile'	juɬujuɬu
'lizard'	iɭipari
'bearded dragon'	walkaaɬu
'blue tongue'	paŋkara, ɬumpaɾara
'lizard similar to blue tongue'	miɭuŋaɭana, japuŋkuliri, waŋkata
'unidentified types of lizard'	milumanu, utaɬa, waŋaɬu, miɭati

'frilled lizard'	waraḷaḷujan
'gecko'	paṅṅapaṅṅa (often given as 'wood adder', a species of gecko)
'snake'	ḷuar, kuntara, piṅu
'types of snake' (attempts at identification inconsistent)	ḷakujan, milkira, japiṅṅici, maṅaṅ, cuḷka
'death adder'	mukuṅu
'carpet snake'	pari-pari, aṅḷakuḷaajaṅu
'black-headed python'	mapamacin
'water snake'	ḷulu-ḷulu, juṅur (also given as 'python', cf. 'crocodile')
'crab'	maṅakaṅu, kaṅṅar (also given for 'scorpion')
'crayfish'	ḷumpan, cuiṅci, muḷu
'mussel'	kuṅuru, ṅakacu, wantaḷ, jarkalaan
'shell'	cikara, ciki(li)ri, wantaḷ (see preceding entry)
'tadpole'	unuṅutu
'frog'	pakuku, uṅupa ('green tree frog'), caraaḷku, cawan ('big brown frog'), ḷaraṅana ('little, green frog'), upun ('big, brown frog')
'fish'	wakaṅi
'fin'	ḷirin
'scales'	pirkipirki(jan) (= 'bloodwood')
'yellow belly'	miaraan
'black bream'	maṅkaḷa, kalkaaṅ[sic], kalkaṅu
'boney bream'	mirikan
'type of small fish'	uṅu
'perch'	ḷakuru

## BIRDS

'bird'	ḷuruṅu
'beak'	aṅḷa
'wing'	juṅḷu
'claw'	ḷapantu, piku
'feather'	kuḷi, puḷun, purṅu
'emu'	utiṅar
'emu feather'	ḷililara
'eaglehawk'	uḷujaan, uḷujaun
'kitehawk'	picuṅu, kacapi
'white hawk'	kulḷupari
'chickenhawk'	mucuṅ
'eagle'	kumalntuicir

'crow - black'	wakan, ukan, wakaḷa, waakaḷa
'pelican'	walkiripari, tulkiripari (Roth)
'spoonbill'	piḷa-piḷa
'diver bird'	piḷi
'jack diver'	kaḷa-kaḷa
'warbill'	piiṭu-piiṭu
'brolga'	kuḷṭuur, mirikunpara, waṅkaṅuḷṭa,
'crane'	ṭankin puraṅṅa, puraḷku
'waterhen'	kicicipapa
'dotterel'	piṅṭil-piṅṭil
'kingfisher'	malara, caampa
'kookaburra'	markula (Urquhart - O'Reilly) calunkur, caruṅkul
'duck'	ṛantaṅi, karapa (unspecified types rather than generic term)
'wood duck'	maṛamiṭaaka, kuṅampa, ṭurpupari, ḡalawal
'black duck'	maṅawira
'whistler duck'	kipuḷu, cipuḷu
'owl'	miḷṭijaun
'mopoke'	kurkurku, jaṭilara, mukaṅka
'dove'	uluukuṛu
'plumed pigeon'	urimpiṭu
'night pigeon'	kulumari
'flock pigeon'	curuali, kuraku
'brown pigeon'	uṛiṅa, ṛapaci
'type of pigeon'	kulupaci
'plains turkey'	parkamu, calalu
'corella'	muṛumaṛi, kuluta (Urquhart - O'Reilly)
'white sulphur-crested cockatoo'	jauira, pirimpalaan maṛapuṅu
'galah'	kilauru, kila-kila
'peewee'	kuṛicicin
'magpie'	kuraṭapu
'budgerigar'	cinpaṛu
'parrot'	mulpiṛ ('green with beads around neck'), palpaacu ('green parrot with red wing'), pulunpulun
'willie wagtail'	cintipir
'finch'	cikuṛu
'chook'	kinti waṭuwaṭura, cukucuku

## INSECTS, ETC.

'insect-like creature'	icajircir ('biter'), ulu
'spider'	kupu
'redback spider'	miŋci kurikuri, miŋiŋi kurikuri, iunpuŋi kurikuri
'fly'	jumuŋiŋiri, jumuŋituru
'blowfly'	miŋa, unuŋu (also given as 'bee')
'maggot'	ciku-ciku, waŋka
'bee'	maŋu
'beeswax'	umu
'honey'	ikan
'wasp'	waŋimaŋu
'mosquito'	mikaŋa, mikaa
'butterfly'	kuŋaŋapu
'hairy caterpillar'	ciapaŋa
'centipede'	iŋitiri, iŋitii
'ant'	iŋi
'meat ant'	iŋi
'black ant'	waŋi
'white ant'	iŋa
'bull ant'	mumuŋun
'antbed'	micampu
'swarm'	kiti-kiti
'louse'	iŋuŋu
'flea'	iŋuŋunpu
'locust'	iŋiri-iŋiri
'witchetty grub'	kapaŋa, kapaa
'unidentified types of grub'	maŋkuŋi, maŋkuŋatipula, puŋpaŋiŋu
'worm'	iŋalu
'beetle'	iŋiran, juŋkuŋuŋu
'scorpion'	kaŋŋar (also given as 'crab')
'grasshopper'	piŋiŋiciri

## FLORA

'tree'	kunka
'root'	iŋuri-iŋuri
'stump'	kaŋŋanmaŋu
'log'	iŋunpun
'bark'	iŋaka, iŋakal
'limb'	maŋaŋaŋcaŋaŋca
'leaf'	puŋiŋiŋi
'tea leaf'	ŋuŋiŋan

'stick'	kunka
'rotten wood'	ḡaputu
'needle bush'	ḡanpuru, ḡuḡkuru
'firewood'	ucan
'fork'	ḡanḡa, paḡḡa, ḡali (possibly ḡaḡi)
'flower'	warinḡa, piḡḡikali, wiḡiri, ukara, kuḡi (see 'feather')
'type of fruit'	kaḡḡu
'wild fig'	waliḡanḡu
'seed'	miḡḡi (compare 'eyes' )
'nut'	kucanpaḡu (unidentified type of edible nut)
'foliage'	kuḡala
'new growth'	muḡkumuḡku, ciipu
'gidyea tree'	pacara, ḡilimari
'gidyea flowers'	muki
'unidentified species of Eucalyptus'	ḡantiḡu
'coolibah'	piḡpiri, makaḡu
'bean tree'	cikaḡaan, cuḡa, wacu
'mountain gum'	puḡa-puḡa
'bloodwood'	pirki-pirki
'supplejack'	alkar
'silverleaf box'	karkaḡi
'mulga'	uriḡa, miawali
'beefwood'	wacara, malaḡampi, ḡintipaḡi
'tea-tree' (Melaleuca)	ḡuḡuḡu (also tea-tree bark and certain things made from this), miḡanḡi, munalkara
'loose bark of tea-tree'	pucunpucun
'corkwood'	cuḡu
'prune tree'	ciḡkaḡu
'wild orange'	inpuḡuḡu, waḡaci
'river wattle'	kaḡaca
'myrtle'	purkulu
'lancewood'	kialpaḡi (= 'east', = 'chestnut' (of horses))
'ironwood'	iḡḡa pulumapuluma (also given as 'coolibah')
'carbeen'	ucaawa, uti, pikaḡi
'whitewood resin'	kunaḡcar
'roly-poly'	ḡumpuḡu
'prickly bush'	makar
'lignum bush'	ḡicaawa, ḡanita

'split-eye'	ɣuɭu
'bush tomato'	muɭuku
'vegetable food'	maa
'yam'	ɣkaa
'type of yam'	makura, ɣaɣa 'kind of makura'
'plain yam'	kankuji
'blackberry'	jalpuɣu
'turpentine bush'	maɣɣujuɣu
'saltbush'	alampa
'grass'	kanir, kaɣir, cilkurujan, cilkari,
'mitchell grass'	piɣa punuɣu
'grass seeds'	iɣir
'spinifex'	wacin (also 'spine, bristle')
'burr'	curu
'reed'	cimpala
'paddy melon'	iɭpu, pulura
'gooseberry'	miɳcaɣuma
'kanguberry'	ɳuanɳu
'pigweed'	ɣaɭu
'poison'	kaɳa
'drug'	palpir (a substance used to drug fish)
'unidentified types of tree'	ukaɳɣaicaɳu
'unidentified type of plant'	cinpun, pipin, paɣulanɳi, ɣatunu, kaɳɣaɣaku, iɳkaɳiɳkaɳu, campuɳca, kuricipalka
'unidentified types of bush'	piɣi-piɣi, pupuci, pirimpiri

SKY, TIME, WEATHER, WATER, EARTH

'sun' (also 'day')	piɳcamu, waɳaka
'moon' (also 'month')	ɣunɣal
'crescent moon'	tuɳɣal putu
'star'	cirka, miɳɳi ('eyes'), puɣuɣuɣu
'Morning Star'	marapuɣaɳkaaɳi
'Southern Cross'	kanamaralakia, kuɳaɳkuɳaaɳu
'Seven Sisters'	markaɳuru
'Milky Way'	waɣu-waɣu
'dark'	waɣa, waɣamakal
'to grow dark'	miwaɳuɣati
'sunrise'	mpampaɳci piɳcamu
'shade'	waɳua
'breeze'	kuiaɳu
'wind'	unuɳkaɣi
'willy-willy/dust storm'	wampati, markamarka, waripirian



'storm'	juṛapiri
'hailstones'	kaṛakucuṅu
'thunder'	maṛapanka, ṛuṅka, ṛuṅuḷa
'lightning'	maṛapanka, janpiri, janpirian, ṛuṅka
'sky'	mana-mana
'mirage'	juma
'heat haze'	paṅṭu
'cloud'	jalpaaca, juruma, curkulu (once only in a song), pupula
'red cloud'	ṅuṛuṛulu (once only in a song)
'storm cloud'	iran-iran
'rain'	kuu, ṭapi-ṭapikuḷa ('light rain'), pili ('light rain') miḷṭi ('rain- drops')
'hail'	karakucuṅu
'water'	kuu
'dew'	kaca, wiḷṭa
'mist'	ṭiraṭira
'rainbow'	jaṛuala
'river, creek'	kua
'tributary'	juṅṭu
'flood'	ṭuura
'swamp'	ṭanpaṭanpa
'ripples'	jamparjampar
'soak'	ipuraan
'spring'	kalaati
'dirty' (of water)	cuṅṭa
'upstream'	maṅṭiṅa
'downstream'	piciṅaṅa
'rock ledge, large flat stone'	ṭumpuṅṅu
'bank of river'	miṛci, jampi
'sand (river)'	kua, kikawaṛa
'mud'	paṭa
'muddy'	paṭanaṅuṛu
'stone'	ṅṭia
'gravel'	ṛuculu
'hill'	ṅṭia, warapantia, jaliṛa
'antbed'	micampu
'cliff'	micalaru
'dust'	kaṭunkara
'ground'	muu
'camp'	muu
'claypan'	kukaṭiri

'track'	waṛuwaṛu
'mound'	waṇa
'heap'	muṭu
'ridge'	purku
'top of a hill or big rock'	kaṇṭamaṇṭu
'hole'	ṇṭuu, ṭaṇṭuu, ṭapuṭapu
'cave'	ṇaṇa, kurkiṛa
'red ochre'	japaṭa, kuri, mila, miṭṭi
'yellow ochre'	paru
'kopi'	piṛakaṛa
'white shell'	cikiliri, cikara
'paint'	kapuru
'salt'	miṭu
'black paint'	umaaka

## CAMP

'camp'	muu
'humpy'	walipiri
'house'	kunti
'windbreak'	waṭu-waṭu, waṭuwaṭua, uṇkuṛicu
'single men's camp'	maṇṭawiṭa
'single girl's camp'	maṇṭakaṭu, jampara
'bed'	iṭapi, calku
'rug, blanket'	kulapuru
'area away from the camp'	waluṅkar 'right outside'
'ceremonial humpy'	jaṇṭu ṭamira-mira
'initiation area'	ṇaṭṭuṇu (possibly not a Kalkatungu word)
'corroboree ground'	macuru

## FIRE

'fire'	ucan
'firewood'	ucan
'sticks for making fire'	jaṇṭaca, ṭurku
'blaze, flame'	kuṛaṭi, aṇṭaṇṭulu
'smoke'	puṭu, juṇarka
'coals'	kapu, wamu
'ashes'	ṭurṇun, pumpa
'to burn, cook'	ṭu-
'hole for cooking in'	waṭi
'to burn' (V <sub>1</sub> and V <sub>t</sub> )	manii

## FOOD

'vegetable food'	maa
'meat'	ati
'beef'	mīna
'wad of chewing tobacco or pituri'	kuka

## WEAPONS, TOOLS, ETC.

'swag'	wal <u>tur</u> wal <u>tur</u>
'spear'	juku, cilka
'shaft of spear'	nirimu
'head of spear'	ṭampira
'barb of spear'	ḷali, anṭaumujan
'spear thrower'	julman, wamira, ulmun
'hook on spear thrower'	ḷali, karimiṅu
'nulla'	ṭalimpiri, ucauca (also heard as wicawica)
'boomerang'	jalkapaṛi
'fluted boomerang'	ṭaruru
'hook boomerang'	cukucuku, inṭajan, inṭamari, cimpala (stick thick at one end and pointed at the other, thrown as a weapon)
'shield'	miṭar, jampuru
'tomahawk'	waramapaṭa, maria, muaṅṅu
'knife'	kankaṛi, puḷcini, wirinṭa, kampuṅu
'ceremonial knife'	ujin, wiin, puṅṭun
'chisel'	kumpaṭa
'stick'	kunka, ṭular, wapu, warawara, canpara
'yam stick'	kulaṅara
'pump' (decoy device for attracting birds)	kuḷumpu
'emu net'	jalpi
'noose on stick' (for catching birds)	cinṭalura
'posts of emu net'	pujulu
'net'	mukuari, kaṅtamaṛa (also 'hairnet'), ucuḷa
'fish trap'	pintapuru
'fish hook'	waṭuku
'rope'	ṭuriṭuri, wanika
'knot'	kani
'grindstone'	kuila, pila, ṭaku, rumpa, macamiḷa ( <i>'lower stone'</i> )
'coolaman'	cuṭu
'coolaman for carrying baby'	ṅaṅkur

'dilly bag'	puṅkuari, ʔajaʔa, iṅkiṅki, paiki (English?), piʔi
'water bag'	upaṅuṅu
'message stick'	juṅʔuaʔi
'roarer, whirler'	piri-piri
'toy'	wanintijicir
'spin ball toy'	pucu-pucu
'ball'	cuʔu
'throwing stick toy'	pumpu, pumpuku
'walking stick'	canpara
'hoop'	kuʔakuʔaali
'corroboree'	warma, kiʔa, ʔamintamira
'song'	warma
'song sung for dead person'	jutuṛu
' " " to get a woman'	kurimpi
'type of song (to get a woman)'	ʔamanari
'blanket'	kulapuru
'string for binding hair'	piʔapiʔa
'cross stick headcap'	puʔucur
'netted headcap'	kaṅʔamaṛa (also given as 'net' in general)
'headband'	miri-miri, puʔurka, karuwali
'nosepin'	pukurpukur, iciṅaʔa
'necklace'	kurupa ('grass'), miʔamiku ('possum or wallaby fur necklace or armlet')
'chest ornament'	pulipiri
'feather ornament worn on arm'	wintalaʔa, urcaja
'wrist band'	maʔiri, purcupu
'belt'	juʔutu, juṅʔuru
'phallocrypt'	purcini ('shell'), jamara
'lap-lap'	munaru, watiʔu ('possum skin'), ulaka, ʔunka wiʔaka ('grass')
'body painting'	maṛaṛca, ʔuuʔuu (markings in general)
'cricket pads'	pujumuci
'double broom' object	wanpa
'kangaroo teeth ornament'	iraṅkal
'death bone'	kaʔipiṅa, ciriku
'string on death bone'	ukur (Roth)
'receptacle for blood'	upir
'totem'	ʔamu
'deity'	curi (proper name), naṅʔikuju (proper name)
'bogey man'	mukajarṅu

## EUROPEAN ARTEFACTS, ETC.

'town'	ṭaun
'house'	kunti
'doorway'	aḡṭa
'hotel'	paplikaatu
'car'	cuṭu
'money'	ḡṭia
'hat'	cika-cika, cirka-cirka
'dress'	kaun
'shirt'	cata, cuari, caar
'trousers'	ṭaraaṭu, ṭaraaṭir
'boots'	panti-panti
'saddle'	iṭapi, uṭantijicir (also 'chair')
'stirrup'	miṭan-miṭan, juuntijicir
'billycan'	pilikan
'axe'	warampaṭa
'knife'	ḡaipu
'aeroplane'	kacapi
'tobacco'	ṭumpaki
'rifle'	ḡṭuumajincir, makini
'tea'	juṭuṭu, ṭii
'grog'	kaḷia
'cake'	kiki
'blanket'	pulankati, pulankiti
'wheel'	kuṭa-kuṭaali
'bread'	maḡu
'pillow'	maḡṭapa
'fence'	paṭikiri
'clock, watch'	piṇcamuujaḡu
'paper'	ḡuṇuḡu, piipa
'white man'	jaṇi
'white woman'	miṭiṭi, wacikani
'butcher'	atiṇci ḷajincir
'policeman'	kanimajincir
'pannikin'	panikin
'handkerchief'	aḡkica
'glasses (spectacles)'	kilata
'bed'	iṭapi
'swag'	ḡuṇuḡu (tea-tree bark)
'gun'	puli-puli ḷajimantijicir
'stew'	putu

'road'	ɾutu
'soap'	ɭupu
'writing'	ɭuu-ɭuu
'pen, pencil'	ɭuu-ɭuujaŋu
'a chair'	uɭantijicir

## PLACE NAMES

'Buckingham (station)'	walaja
'Bushy Park'	muu unuŋuina-ŋuina
'Chatsworth (station)'	cacuri
'Cloncurry River'	paimara
'Devoncourt'	mpulamaɾa
'Eulola (station)'	jalula
'Fort William'	iwinti ɭaurala, ɭaurala
'Granada (station)'	uɭumpuɭu
'Hamilton'	puɭu-puɭu
'Kajabbi'	karkalaan
'Kamilaroi (station)'	ɾiragu
'mountain near Dajarra'	urupu
'Leichhardt River'	ɭarapaɭa
'Lorraine (station)'	wanɭunaɾi
'Old Hammerly (station)'	jamiɭi-jamiɭi
'Quamby (station)'	umpu-umpu
'Stanbroke (station)'	puɭuru, wantaaɭpi

## DESCRIPTIVE

'happy'	unuani (V <sub>1</sub> )
'jovial'	piɭcan
'clever'	japacara
'mischievous'	makaɭi piɾcara
'careful'	ciɭaanma (V <sub>t</sub> ) (= 'take care of, watch out for'); ciɭaanmati (V <sub>1</sub> , reflexive) (= 'be careful')
'insane'	ŋaŋiŋaŋi, ŋujuraŋujuraɭati, munɭuiti
'tired, weak'	maŋu, macuri
'noisy'	ciŋkujan, ɭarkanta
'quiet'	ɳukur, puru, wakaŋiri
'shy'	wakuɳɭi, mutuna
'sulky'	puaaɾi, ŋɭuupira
'belligerent'	arkunaan
'drunk'	kuujan, miɭti wakini (V <sub>1</sub> )
'greedy'	ɾuujan

'untruthful'	maiṭi
'naked'	majal
'ready'	ḷaana
'alone, of one's own accord'	janḡana
'bald'	ciranciran, kanṭa maḷapala
'grey-haired'	muupari, katuḷaan
'blind'	mucupari
'blind in one eye'	miḷṭajar
'deaf'	iṅṭakajarati (V <sub>1</sub> )
'ignorant of'	ḡunkaḡu
'satiated'	maanti
'āumb'	maḷi piḷṭiṭati
'hungry'	jaṛikajan, jaṛikajanati (V <sub>1</sub> ), pai
'thirsty'	mani, pujuja
'pregnant'	putujan
'lame'	kunṭuḡu, kanṭaaḡka, puranḡa
'old'	cajaḡu (= 'former', = 'old' (of persons, animals, objects) )
'middle-aged'	ṭuntukaja
'young'	kacakuḷu, katakuḷu
'fat'	miaraan, kunṭalijan
'lean, thin'	mani, wiraruḡkali, jalaura ('poor in condition, sickly')
'tall'	ṭalpaḡu
'short'	muṛanḡula
'ill'	jalaura, anḡa (V <sub>1</sub> ), ṭarajan ('ill as a result of having been "sung"')
'weak'	maḡu
'drowsy'	waṛarujan
'strong'	ḡawa, ḡawajan
'well, lively'	japacara
'alive'	iṭi
'dead'	uḷi ('to die'), wairatiṭati (< waira-iti-ṭati)
'itchy'	kiapi, ciapi
'frightened'	iḷṭinaan
'wounded'	kakian
'sore, chafed'	piripiri
'good'	puṭur
'correct'	unaṛuur
'bad'	ṭuḡumpiri, ṭikinṭikin
'hot'	pujur
'cold'	ilir, muntumuntu
'big'	jaun, jaḡmaḡu (rare)

'little'	kaca, kacakuļu, katakuļu, ʔapi, ʔapikuļa
'heavy'	ŋawa, ŋawajan
'light'	maʔumaʔu
'deep'	ʔaŋʔu
'shallow'	munkun
'long, tall'	uļkuuri
'short'	muʔaŋkula
'wide'	pinta
'narrow'	cumpun, kali, calka, calkani, calkiļi
'straight'	ʔuʔuku
'crooked, winding'	kuʔukuʔu, kuʔikuʔi
'round'	uriciri
'steep'	paŋʔuu, cuku, micaļaru ('steep hill- side')
'flat'	ʔala, ʔura
'smooth'	cuʔuur, maʔumaʔu, maʔuʔu
'rough'	pirkipirkian
'sharp'	macarka
'blunt'	muaŋu, muntu, iŋkia
'soft (to touch)'	pilļi
'hard (to touch), firm'	ʔail
'wet'	kuujan, ʔilŋi, ʔipuʔati
'dry'	mujuta
'fast'	puuŋaan, puuŋʔu, punta, ŋuajan (of current)
'slow'	ʔaarcu, ʔarcu
'hard'	ŋawa, ŋawajan
'soft'	pilļimaļi
'open'	piŋʔa (cf. 'wide')
'shut'	cumpunati (V <sub>1</sub> )
'tight, stuck'	puŋʔi (V <sub>1</sub> )
'clear, bright'	mpampaipci
'clear (of water)'	pulilŋu
'dirty'	muujan, paʔajan, paʔaŋaŋuru
'full'	ŋamicuŋpar
'empty'	puļuma
'new'	iļaŋu
'old'	cajaŋu
'high'	jumujan, mica (of hill) (cf: micaļaru 'steep')
'low'	piir
'torn, leaking'	kilian



'sour'	kulpurujan
'bitter, salty'	kaḷia
'poisoned'	mpuuṇajan
'sweet'	ṇuurujan, ṛiilku
'rotten'	mpuu
'to smell' (V <sub>1</sub> )	mpuṭi
'ripe (of fruit)'	mpuuṇu
'tough (of meat)'	wiṛaru
'fresh (of food)'	iṇalṇu
'bare, cleared'	maḷapala, manu
'scrubby'	cuṛujan
'bushy'	ṇuṛulu
'shiny'	miṛca, miṛca
'rotten (of wood)'	ṭukarpajan
'right'	unaṛuur (also = 'correct') ṭuṭuku
'left'	kaḷuṛuṇu
'in small pieces'	ṭapikuḷa
'black'	macin, marcin, umaṛca, umaṛcamarṇca, umaaka
'white'	puḷupuḷu, puḷuwara
'red'	kurikuri (kuri 'red ochre')
'green'	jalapujalapu
'yellow'	paruparu (paru 'yellow ochre')
'chestnut (of horses)'	kialpari ('east')
'piebald'	wamaṭiṭiraan

## VERBS

## Position

'remain'	ini
'be present'	ini
'be absent'	uti
'sit'	ṇaṭaṭati
'stand'	ṇa, ṇaṇaṇpi, ṇaṇṇiṇaṇpi (poss ṇaṇpi)
'lie'	ṇu
'sleep'	ṇu wamiḷajan 'lie asleep'
'stretch oneself'	kula, cuḷcanticama
'curl up, coil up'	ṭumati
'bend' (V <sub>1</sub> )	kuṭukuṭuṭati
'sit with legs crossed'	ini ṇiḷṭana
'squat'	ini piṛcaṇaṇpiṛcaṇa
'stoop, crouch, bend over'	uṛu

'hang down'	kaŋcali
'lean against'	muŋɕani
'to hide oneself'	cuɕuɕati, cuɕuɕati
'take up a distant position'	jarkaɕati
'wait for'	miɕiɕani
'lie around, be scattered'	ɕanci, piɕanci

## Motion

'go walk'	iŋka
'go away, depart'	kaanta, paca ('take leave of someone' (locative) )
'come'	muŋɕiŋka, iŋka ŋauna ('walk hither')
'return'	iti, ŋancumuɕiɕati
'hurry'	pakapakama, ɕulaɕula
'run'	ɕuna
'fly'	ɕuna
'blow (of wind)'	ɕuna
'flow'	ɕuna, kaanta
'go up, climb'	juu, juunti (also 'ride a horse')
'rise (of flood)'	aŋɕaju
'go down'	pia
'go in'	aɕa (also 'set (of sun)')
'come out'	wajara (also 'rise, get up')
'emerge from a hole'	ŋɕuucama
'crawl'	uluru, pukai, pukuai, uɕu
'swim'	kaaŋɕa
'dive'	kaŋɕaari, kaŋɕara
'fall'	ŋuji
'fall headlong'	kaŋɕa ititi
'disappear'	ŋampuɕati
'creep up to'	pikari
'sneak along'	aŋɕaɕu
'slip'	palajati, palai
'go across'	wamaɕuma, wamaŋkaaɕi
'turn around' (V <sub>1</sub> )	wakini
'jump'	cuŋpa
'hop away'	cuŋpa
'play'	wani
'play with'	waninti
'to alight'	aɕii
'to crowd together'	aŋɕamuɕuɕati
'to cluster'	ŋukuɕati

## Hunting and Gathering

'collect, gather'	aŋpa, uŋŋa (also 'graze')
'dig'	waŋukati
'to follow'	wanŋinti (V <sub>t</sub> ), wanŋi (V <sub>1</sub> )
'to sneak along'	wakaŋani
'follow, chase'	ŋaima, ŋai
'creep up on'	ŋapama
'hunt'	kapani, ima
'to take hunting'	kapaninti
'flush'	mai
'look for'	ŋkuma, cinti, ŋanŋama
'find, meet'	ŋanŋama
'catch, grab'	ŋulurma

## Induce position

'put down, place'	aaŋ, aŋii, makaŋaŋii
'knock down'	kanŋa iŋiti, kanŋapuni, ŋiinkai
'drop'	ŋujinti
'put into, insert'	aranti
'take out of'	cia, ŋŋui
'hide something'	cuŋupuni, cuŋupuni
'to put at a distance'	jarkapuni

## Induce motion

'take'	mani, ŋunti, muma
'take with one'	unpi
'steal'	ŋiŋa
'send, release, let go'	ŋka, ŋkaimpaki
'send back'	ŋanŋumuŋipuni
'bring'	itinti, waŋinti
'bring back'	itinti
'get'	mani, munma, muma
'carry on the shoulders'	ŋaŋima
'carry on the back'	karinti
'carry in a coolaman'	ŋatinti
'push'	aŋka munŋupukaanŋi
'drag'	pukaanŋi
'throw'	iŋiti, ŋikiiti
'gallop (a horse)'	ŋunti
'trot (a horse)'	curkaŋunti
'to shake' (V <sub>t</sub> )	muŋimanti

## Affect

'make, do'	kiakati
'fail to do, miss'	ḡurcapuni
'build, erect'	ḡka
'own, possess'	uḡanti
'take care of'	ciḡaanma, matiḡari
'allow'	ḡka
'quieten'	aḡḡatuma
'win'	aḡḡa
'to leave relinquish'	ḡua
'hit, kill'	ḡa
'fight'	ḡati
'hit with a missile'	iḡci (also 'chop')
'kick'	ḡa ḡapantuḡu
'consume entirely, massacre'	uḡima
'strangle'	miri wakima
'tread on'	ntati
'hug'	ḡuḡcakama
'throw'	iḡiti
'spear, stab'	ḡka, ḡkama
'break'	ḡuti (V <sub>1</sub> ), ḡuma (V <sub>t</sub> )
'chop'	iḡci (also 'hit with missile')
'cut through'	ḡua
'cut the surface'	piḡci
'butt'	kanta uḡu
'grasp'	ḡulurma
'to paint (oneself)'	mai, iḡciti
'crush up, pound, cut up into small pieces'	piḡḡipuni
'to flatten'	ḡalaḡalapuni
'grind'	ḡumpa
'clean seeds'	caḡi
'squeeze'	almi
'sharpen'	ḡḡiali
'rub, clean, wipe, whet'	kari, waḡi
'to stroke (e.g. cat's fur), to smooth'	maḡukari, ḡaḡupuni
'to straighten'	cuḡca
'to stretch'	cuḡca
'cover'	kaḡa, kaḡi
'bury'	aḡḡakatḡ
'dig up'	uḡḡa
'dig'	waḡukati

'shut, block'	cumpunpuni
'pour'	aŋtaŋka
'fill'	aŋtaŋaiŋci
'pile up, gather up'	ŋukupuni, muʔupuni
'shut'	aŋtakama
'to put a hole in'	aŋtama, ŋʔuuma
'widen'	piŋʔapuni
'light a fire'	aŋtaʔu, jantaʔu, makaʔaaʔi
'to burn' (V <sub>1</sub> and V <sub>t</sub> )	manii
'put a fire out'	wiima
'to warm'	jumupuni, pujurpuni
'to cool'	ilirpuni
'to wet (of rain), to rain (on)'	uŋta
'to wet'	ciru
'to wash'	caralma
'to wash oneself'	kariti
'to shut in'	aŋtakama
'ward off'	ŋanti
'restrain someone'	muŋtuntati, kami
'to tickle'	kiʔakiʔama
'to hurry someone up'	ʔurkananti
'to skin'	waku ʔa, patinti
'to gut'	ŋʔui, ununtui
'to cook, to burn' (V <sup>t</sup> )	ʔu, paʔupuni
'tie'	kanima
'sew'	ŋkaa
'to give'	api
'to exchange'	apiti (also 'to give accidentally' as in 'x gave y a cold')
'to pay'	munci
'to pay back'	jurunti
'to divide up'	maʔapuni
'to lose'	uʔijakapi, walpaʔa
'to feed up'	puʔapiti

#### Conditions and activities of the body

'be ill'	aŋka
'feel' (V <sub>1</sub> )	jakapiti
'be ashamed'	kulpuruan
'to sweat'	aʔciʔu iŋci
'to be wounded'	kakian
'to bleed'	uʔcinta

'pain'	ḡkiki
'to shiver'	maḡaapcanti
'to have a cold'	maḡujan, ḡunkuraan
'to get a cramp'	ciḡamanmanati
'to be well'	ḡapacara
'to cure'	ḡapacarapuni
'to convalesce'	ḡapacaraḡati, maḡanti
'to die'	uḡi
'to drown'	kaḡara ḡuti (lit. 'break one's neck')
'to be born'	miḡḡiḡati
'to have a baby'	piḡapiḡa aḡii
'to wear'	ḡaḡḡi
'to be intoxicated, faint'	miḡḡi wakini, miḡḡawakini, miḡḡi ḡuti
'have a headache'	aḡka kaḡḡaa, kaḡḡaḡkiki (noun)
'see'	ḡaḡi
'wink'	miḡḡimuti
'sniff'	ḡika, ḡca
'pant'	waira cuḡpa
'cough'	ḡaka, ḡarka, ḡaaka
'sneeze'	ciḡkur ḡa
'open the mouth'	aḡḡanta
'blow on'	pupuḡa
'suck'	piḡḡimpi, puputi
'bite, chew'	ica
'eat, drink'	aḡi
'kiss'	aka (V <sub>t</sub> ), akati (V <sub>ḡ</sub> )
'lick one's lips'	maḡimputi
'poke out one's tongue'	maḡi muntunpanḡi
'have the tongue hanging out (of dog)'	maḡikaḡcali
'swallow'	ḡukupi
'vomit'	ḡarkuma, ulmu
'spit'	campar iḡḡi
'to pick up in the mouth'	aḡḡampuḡi
'to fill oneself with food'	putu aḡiti
'to be full of food'	putumaanti
'scratch oneself'	piḡciti
'shake hands'	ḡulurmaḡi
'urinate'	kurkaḡi ḡka
'defecate'	kunaḡa
'copulate'	mpu (V <sub>t</sub> ), mputi (V <sub>ḡ</sub> )

## Vocalising and thought

'language'	jaṅaalu
'tell'	punpa, pati, panti
'talk, tell, ask'	punpa
'converse'	punpati
'scold'	paṭa, ḍtīi, ṅaṅamai
'reprimand'	ḍiṭṭaṅka
'argue'	paṭati
'swear'	macani ṭuma
'call out'	kudī, mpaā, mpaati
'cry'	ḷuṅa
'bark (of dog)'	ṅanti
'growl (of dog)'	ṅṭuumpa
'moan'	kuli
'laugh'	icama
'whistle'	upi, upimpa
'sing'	apii
'talk about someone'	ciḍṭi
'boast'	ciḍṭicamati
'know'	ikani
'learn'	paṅiririṭati
'teach'	paṅiripuni
'see'	ṅaṅi
'show'	miṭṭipati
'understand'	jakapi
'hear, listen'	jakapi, iṅṭa ṅu
'think about'	iṅṭaṅuma
'dream of'	aṭīi wamiḷaṭi
'forget'	iṅṭakajarati, intakajarpuni
'sulk'	ṅṭuupira
'tell lies, pretend'	ṅurkiṭṭiṅuma
'to like'	waira ṅu
'to fear'	ṅumpi
'to frighten'	ṅumpima
'to be angry'	kuṭu waṭara
'take care of/with' (V <sub>t</sub> )	ciṭaanma
'take care' (V <sub>1</sub> )	ciṭaanmati

## Sounds

'to rustle (of leaves etc.)'	uunpa
'to make a noise'	ṅawapili, wakampaka, wakampawakampa
'to make a fuss'	cicima

'to go bang (of thunder, gun)'	luma
'to go crack, to crackle'	cilarinpa

## Change of state

'grow warm'	pujuḷati, jumuḷati
'grow cold'	iliḷati
'grow dry'	mujutaḷati
'grow hard'	ḷailati
'grow up'	jumuḷati, kaḅḷapirinaḷati
'swell'	puḷcuḷati
'abate (of rain)'	ḷaancuḷati
'get lost'	wampaḷaḷati
'grow late'	ḷaiḷiḷati
'grow dark'	miwaḷuḷati

## QUANTITY

'one'	ajar
'two'	luati
'three'	kurpai
'four'	luatiḷuati
'mob'	maḷḷa
'few'	muḷu ('a group, heap, pile')
'many'	ulari ('crowd'), maḷḷa
'much, in great numbers/ quantity'	maḷḷana
'a little'	paḷku, paḷkumpiri
'none'	ḷurca, ḷurku

## INTERROGATIVES AND INDEFINITES

'where'	arakaḷi
'where to'	arakaḅi
'where from'	arakaḅu
'which way, some way or other'	kia
'when'	ḷianu
'what, something'	ḷaka
'why'	ḷakaja, ḷakajan, ḷakaa, ḷakakua
'how many, some'	ḷamiḅu
'who, someone'	ḷani
polar interrogative marker	wii
'which'	ḷakali



## TIME

'now, today'	i ʎa
'yesterday'	ŋaɪɲi
'the day before yesterday'	ŋaɪɲiŋara
'the other day'	piŋcamuŋara
'formerly'	caʎaŋa
'recently'	i ʎaŋuŋa
'long ago'	caʎaŋa puʃur
'last night'	i ʎa waʃaŋka
'in the night'	waʃaŋka
'tomorrow'	waʃaŋaŋa
'day after tomorrow'	waʃaŋaŋaŋara
'early in the morning'	waraʃiŋa
'later'	ŋaɪɲiŋaɪɲi
'middle of the night'	ʃaʃiŋara
'when the sun is high'	ulaaŋʃa
'in the daytime'	piŋcamuʃi
'every day'	piŋcamupiŋcamuŋaraʃi
'always'	ŋuʃi, ŋimu, muŋʃumuni
'again'	kuʃukuʃu
'still'	ŋuʃi
'beforehand'	ŋampuruʃuŋa
'later on'	maŋkaŋa, maŋii
'first'	wacaʃiŋa

## POSITION

'upside down'	ŋiinkai
'close, near'	pikaja
'here'	ŋiʃi
'at home'	muʃi
'far'	ʃarka
'above'	piŋiŋa
'below'	pia
'behind'	uʃiŋka
'in front, in first place'	wacaʃiŋa, wacaʃiŋa
'the other side'	uʃaŋara, paŋaja, paŋampaja paŋaaŋʃun, paŋiʃi ŋaantun ('opposite')
'at the side'	ʃakia (also 'left over, remaining')
'in the middle'	ʃiinta
'inside'	uŋkanta, uŋkankuŋa (allative form)
'hither'	ŋauŋa
'thither'	pauŋa
'hence'	ʃuŋu

'upstream'	maṅṅilaṅa
'downstream'	piciṅaṅa
'elsewhere'	muṅṅara ('other camp')
'out of sight'	ṅampupla
'in the opposite direction'	aṅṅiaṅaraṅi
'north'	ṅapungku
'south'	ṅiriwa, karwaṅi
'east'	kialpari
'west'	ṅuṅkari

## RESIDUE

'very'	paṅca
'accidentally, carelessly, inaccurately'	wampaṅaṅa
'still, always'	ṅuṅi
'quickly, early'	maṅampira
'loudly'	uṅuwa
'ready'	paṅana
'yes'	ṅaa
'not'	kuntu
'no'	kuna, kunajan, kunaan
'don't'	wanta
'if'	puju
'well, now'	ṅaa, ṅamara, mara
'a slice'	walkar
'secret'	uṅana
'in return'(as in 'pay back')	palkir
'on one's own'	ṅaṅkaṅa

APPENDIX TO GLOSSARY

KALKATUNGU VOCABULARY AND EUROPEAN CONTENT

To express new referents introduced by Europeans the Kalkatungu used the three standard means of extending the expression system. They extended the meaning of existing words; they used their morpho-syntactic resources to form new words and expressions, and they assimilated words from English or Pidgin English.

Examples

Extension of Meaning

Kalkatungu	Earlier Meaning	Additional Meaning
jani	'ghost'	'white man'
ikan	'wild honey, "sugar-bag"'	'sugar'
kacapi	'kite hawk'	'aeroplane'
ŋtia	'stone, pebble'	'money'
ʔuu-ʔuu	'pattern, markings'	'writing'
kinti	'water rat'	'chook'
cuʔu	'coolaman'	'car'

Examples of words assimilated from English

Kalkatungu	Original	Meaning
cuku-cuku	'chook'	'domestic fowl, chook'
jalapala	'yella fella'	'part Aboriginal person'
miʔiʔi	'missus'	'white woman'
puʔikar	'pussy cat'	'domestic cat'
putu	'pot'	'stew'
ʔutu	'road'	'road'
ʔupu	'soap'	'soap'
ʔina	'dinner'	'meal (other than breakfast)'

pilikan	'billy can'	'billy'
ṭaun	'town'	'town'
ṛupu	'rope'	'rope'
kiki	'cake'	'cake'
kaun	'gown'	'dress, frock, gown'
pulaṅkiti	'blanket'	'blanket'
pulaka	'bullock'	'bullock'
puliṭi	'bullock'	'bullock'

#### New formations

atiṅci lajiṅcir	('killer of meat')	'butcher'
kauja pujur punintijicir	('heater for water')	'copper' ('boiler')
kanimajicir	('who ties one up')	'policeman'
kanimantijicir	('with which one ties up')	'leash'

Before European contact the Kalkatungu numeral system extended only to three or perhaps four. It has been extended by the common method of using 'hand' as a base of five.

1	ajar	
2	luati	
3	kurpai	
4	luati-luati	
5	makaṭi-ajarṅa	(makaṭi = 'hand')
6	" ṅaraṅa ajarṅa	(ṅara = 'other', -ṅa = adverb forming)
7	" "	luati
8	" "	kurpai
9	" "	luati luati
10	" "	makaṭi ṅaraṅa

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