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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# word boundary
Ø 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

x
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\(^1\) (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 Sulieeman 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'.

\(^1\)The name has been recorded as \([\text{kalkaduŋ(u), kalkaduŋ(u)}\)] and \([\text{kalkuduŋ(u)}\)], the last version suggesting the name is really Kalkutungu and that \([\text{w}]\) and \([\text{u}]\) represent the neutralisation of unstressed \(\text{w}\) and unstressed \(\text{u}\). However, since I have heard slow versions with \([\text{w}]\), 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 'Kulkadoon' 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 Kalkadoon 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 Kalkadoon left alive." However, there are scores of full-blood 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 Boulia that he was not the "Prince Micky" referred to by Fysh in the quotation cited above. Mick 'inherited' the Burke which was Yalarnnga territory not Kalkatungu country. Today his portrait hangs in the Boulia library and Boulia 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). Yalarnnga, the language spoken immediately to the south of Kalkatungu shares some lexical and morphosyntactic 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 (S₁), 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 qaŋi '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 qaŋi '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,
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 maɾapa'i marks the CAUSAL case relation. In (1.2) the case relation is marked on the verb by mant'i. maɾapa'i now appears in the nominative (the case form used for S₁ and P) and some would describe maɾapa'i as still bearing the CAUSAL relation though appearing in a morphologically different case form. I believe this view is incorrect and that maɾapa'i 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 -mant'i is used in complements like the following.

(1.3) pini panticamaṭi-ga a-kin laji-mant'i
you tell: on-past comp-you hit-because:of
'You 'dibbed' 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) maɾapa'i 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 -mαnti. It also sanctions the advancement of the DATIVE relation to P with the addition of -pca 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 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) maťu-ju  maa  ɪuji
     mother-erg food  cook
     'Mother cooks the food'

(1.5) maťu  maa-ci  ɪuji
     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 maťu is S1 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 S1 and A. Where the term 'absolutive' occurs, it refers to S1 and P.

---

1One 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'.
2.1. PHONEMES

Consonants:

<table>
<thead>
<tr>
<th>Bi-Labial</th>
<th>Apico-Alveolar</th>
<th>Apico-Domal (Retroflex)</th>
<th>Lamino-Dental</th>
<th>Lamino-Palatal</th>
<th>Dorsal-Velar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stops</td>
<td>p</td>
<td>t</td>
<td>ʈ</td>
<td>ɖ</td>
<td>k</td>
</tr>
<tr>
<td>Nasal</td>
<td>m</td>
<td>n</td>
<td>ɳ</td>
<td>ɲ</td>
<td>n</td>
</tr>
<tr>
<td>Laterals</td>
<td>l</td>
<td>l</td>
<td>ɿ</td>
<td>ɿ</td>
<td>l</td>
</tr>
<tr>
<td>Rhotics</td>
<td>r</td>
<td>ɾ</td>
<td>j</td>
<td>w</td>
<td></td>
</tr>
</tbody>
</table>

Vowels:

<table>
<thead>
<tr>
<th>Front</th>
<th>Back</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>i</td>
</tr>
<tr>
<td>Low</td>
<td>a</td>
</tr>
</tbody>
</table>

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, ɳ, ş and p may occur.

Word shapes may be summarised by the following formula,

\[
\begin{array}{cccc}
((C)C) & V(C)C) & V(C) & V(C) \\
1 & 2 & 3 & 4 & 5
\end{array}
\]

The sequence under the bar may recur \( \circ \).
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: `that rock' could be pronounced [pə:ŋːiə] with the vowel a: being nasalised and retroflexed as in a word like aŋpajj: 'collect' [aŋbajj].

$C_2$ 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, nη, nπ, nɕ, nŋ).

$C_4$ 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, η), $C_3$ may be any apical nasal or lateral or r (n, η, l, l, r). If $C_4$ is filled by any other consonant (e.g. r), $C_3$ may not be filled (but see below).

$C_5$ may be n, l, r, η, ɬ or n. n occurs as a final consonant in only a few words. η has not been recorded in word-final position. Given the low frequency of n in word-final position, η would have had a low frequency in this position. I think that the absence of η 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- -təa) the other consonant initial suffixes and clitics can occur freely with stem-final consonants without morphophonemic change. Thus we have clusters such as np : mulpən + pia (on the parrot) and rŋ : aŋpajj: 'only' ajar 'one + əə (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 phonemotactic 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, nk, etc. as sequences of phonemes rather than units even though these nasal-stop sequences occur intervocally. However, heterorganic nasal-stop sequences occur intervocally 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 *kuna* 'branch' as *ku unkâ* and *pipcmâ* 'sun' as *pi ipcamâ*. 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.

![Table 1: Intervocalic Consonant Clusters](image-url)
Examples Illustrating the Phonemotactics

| p  | paa   | 'there' | kupu  | 'spider' |   |
| t  | -     | -       | ati   | 'meat'   |   |
| ūi | ūū-ūū | 'markings' | maʃu  | 'mother' |   |
| i  | iina  | 'they'  | ili   | 'ant'    |   |
| c  | cuʃu  | 'coolaman' | iici  | 'nose'   |   |
| k  | kua   | 'river' | juku  | 'spear'  |   |
| m  | maa   | 'food'  | ɠamun | 'lump'   |   |
| n  | -     | -       | ini   | 'be'     | maŋaŋa  | 'doctor' |
| ɠ | ɡaipu | 'knife' | waŋa  | 'mound'  | muçuŋ | 'chicken hawk' |
| n  | niña- | 'steal' | iŋkaga | 'went'   |   |
| n  | nini  | 'you'   | aŋa   | 'gave'   | mulpin  | 'parrot' |
| ɳ | ɳata  | 'we'    | aŋi   | 'will give' | -  |
| l  | -     | -       | kilian | 'torn'   | piŋcil  | 'corpse' |
| l  | luŋa  | 'cry'   | kuʃu-kuʃu | 'again' | wantaŋ  | 'shell' |
| l  | laja  | 'hit!'  | uli   | 'die'    | -     |
| i  | ɿwuati | 'two'  | iŋa   | 'now'    | -     |
| r  | -     | -       | juru  | 'man'    | utiŋaŋ  | 'emu' |
| r  | rumpi | 'fear'  | maŋapai | 'woman' | -     |
| w  | wampa | 'girl'  | awa   | 'give!'  | -     |
| j  | jani  | 'ghost' | mpaja  | 'you two' | -  |
| mp | mpuu  | 'rotten' | rumpi  | 'fear'   | -     |
| nt | -     | -       | wanta  | 'don't!'  | -     |
| ʂ  | ʂia   | 'stone' | waŋtu  | 'heel'   | -     |
| ʂ  | ʂii  | 'rouse on' | aŋia  | 'mouth'  | -     |
| nc | ṛca-  | 'sniff' | ɳunca  | 'nothing' | -  |
| ɳk | ɳkaa | 'yam'   | iŋka  | 'go'     | -     |

| l’t | ?   |   |
| l’t | walšur-walšur | 'swag' |   |
| l’t | pilli  | 'soft' |   |
| ʜc  | uɿci   | 'blood' |   |
| ɿp  | ɿuŋpun | 'log'  | ɿp   | aŋpai  | 'to collect' |
| nk  | kunka | 'branch' | ɳk  | aŋka    | 'to ail' |
| lp  | jaŋpi | 'emu net' | lp  | ɿpu   | 'melon' |
| ɿk  | jaŋka-paɿi | 'boomerang' | ɿk  | ɿpaju  | 'a little' |
| r ɿp | kurpai | 'three' |   |
| r ɿk | jarka  | 'far'   |   |
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.

| phoneme | p | t | c | k | m | n | η | η | η | η | η | η | η | η | η | η | η | η | η | η |
| frequency | 15 | - | 1 | 7 | 6 | 14.5 | 43.5 | 14.5 | - | 1 | 3 | 1.3 | 5 | 25 | 1 | 0.5 | 1.5 | * | 2 | 1 |
| l | l | l | l | l | - | 1 | 1 | j | w | 6 | 7 | 13 |
| 29.5 | - | 3.5 | 11.5 | 13.5 | 26.5 | 84.5 |

*initial η has been observed only in Auwati 'two' which did not happen to appear in the 333 words.
Frequencies Intervocally

<table>
<thead>
<tr>
<th>p</th>
<th>t</th>
<th>ṭ</th>
<th>ṭ</th>
<th>c</th>
<th>k</th>
<th></th>
</tr>
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<tbody>
<tr>
<td>9</td>
<td>6</td>
<td>6</td>
<td>5</td>
<td>6</td>
<td>11</td>
<td>43</td>
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<td>ṇ</td>
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<td>1.5</td>
<td>1</td>
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<td></td>
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<tr>
<td>r</td>
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<td>14</td>
<td>7</td>
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<table>
<thead>
<tr>
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<th>w</th>
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<tbody>
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<td>1</td>
<td>4</td>
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</tbody>
</table>

14  30.5  19  9.5  11  16  100

Final Frequencies

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<thead>
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</thead>
<tbody>
<tr>
<td>i</td>
<td>37</td>
</tr>
<tr>
<td>a</td>
<td>26.5</td>
</tr>
<tr>
<td>u</td>
<td>26.5</td>
</tr>
</tbody>
</table>

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 ṇ 2 ṇ 2 |
| l  | 6  l 1 |
Overall Frequencies

<table>
<thead>
<tr>
<th></th>
<th>p</th>
<th>t</th>
<th>t</th>
<th>c</th>
<th>k</th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
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<tr>
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<td>1</td>
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</tr>
<tr>
<td>r</td>
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<td></td>
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<td>3.5</td>
<td>1.5</td>
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<tr>
<td>j</td>
<td>w</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>1.5</td>
<td>1.5</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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, t, 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. η 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 \( \lambda \) except that the occlusion is formed with the blade or middle of the tongue against the hard palate. Like \( \lambda \), 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 \( \mathbf{r} \), 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 [t].

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 l. n, however, usually sounds alveolar as does nt. There are retroflex tokens of n and nt like the one quoted in §2.2 (paa \( \eta \)ia [p\( \ddot{a} \):\( \ddot{g} \)ie]), 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 phonemically 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: jaja 'hit!' [j\( \ddot{a} \)j\( \ddot{a} \)], jani 'white man' [j\( \ddot{a} \)ni]. Unstressed syllables exhibit vowel reduction. In rapid speech any vowel may be pronounced [\( \ddot{a} \)], but generally the vowels remain distinguishable.

2.5 PHONEMIC OVERLAP

Intervocalic t may be pronounced as a flapped rhotic [\( \ddot{f} \)] 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 —

\[ t = [t \sim d \sim f \sim j]/v_{-}v \]

\[ r = [f \sim j]/v_{-}v \]

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.

- puţur, puţura 'good', 'well'
- -waņcir, waņciri 'a pair' (see §5.2.7.3.)
- əņcir, əņcira 'father's sister'
- aćcir, aćcira 'sweat'

2.7. CONSONANT ASSIMILATION

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

- utiņar utiņaṭu 'emu'
- əarkun əarkuntu 'wallaroo'
- əail əailtu 'firm', 'hard'
- m ucuŋ m ucuŋtu 'chicken hawk'
- wantaŋ wantaŋtu 'shell'
- p irman p irmancu 'vein'

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

- ucan ućanta 'fire'
- ulaŋ ulaŋaŋa 'high' (of sun)

-ta also occurs following the participle -nin and -ta 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:
The dative of vowel stem nominals is -a with stems in a, -i with stems in i and -u with stems in u:

- **mpaja** → **mpajaji** 'you two'
- **kuja** → **kujaji** 'father'
- **ŋali** → **ŋaliji** 'we two'
- **pupi** → **pupiji** 'mother’s brother'
- **puju** → **pujuju** 'they two'
- **matu** → **matuju** 'mother'

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.),

- **kujaŋci** 'his/her father'
- **pupiŋci** 'his/her mother’s brother'
- **matuŋci** 'his/her mother'

- **maa** 'food' and ati 'me'

... [Continues with examples and notes on grammatical points]
which dissimilates to -cín.

It does not operate in

-nti (_manti) transitiviser etc.
-mpa perfect
-ма́н imperfect

examples:

\[
\begin{align*}
\text{jáni} + \eta \kappa &= \text{jani}k\kappa \quad 'white man' (+ erg) \\
wampa+ \eta \kappa &= \text{wampaku} \quad 'girl' (+ erg) \\
kunka+ \eta \kappa &= \text{kunkaku} \quad 'stick' (+ erg) \\
\text{tiún} + \nu\kappa &= \text{tiúnи́ца́} + \nu\kappa \quad 'run' (+ habitual) \\
\text{íη}k\kappa + \nu\kappa &= \text{iηкака́} + \nu\kappa \quad 'go' (+ habitual) \\
\text{а}н\kappa + \nu\kappa &= \text{анкака́} + \nu\kappa \quad 'ail' (+ habitual) \\
\text{tiúna} + \nu\kappa\kappa &= \text{tiúnапа́ани} \quad 'run' (+ continuing) \\
\text{íη}k\kappa + \nu\kappa\kappa &= \text{iηкака́} + \nu\kappa\kappa \quad 'go' (+ continuing) \\
\text{tiúna} + \nu\kappa\kappa &= \text{tiúnапа́а́}j\kappa \\n\text{íη}k\kappa + \nu\kappa\kappa &= \text{iηкака́} + \nu\kappa\kappa \\
\text{tiúna} + \nu\kappa &= \text{tiúnин} \quad 'run' (+ participle) \\
\text{íη}k\kappa + \nu\kappa &= \text{iηкаки́н} \quad 'go' (+ participle)
\end{align*}
\]

* The appearance of i rather than a in īuničа́ is idiosyncratic.

It also appears in the past tense of this verb - īuniña.

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

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

-jan following vowels
-аа́n " consonants
-та́т " vowels
-ат " 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 - -аа́n is quite idiosyncratic.

\[
\begin{align*}
\text{ку́ни́} &= \text{'wife'} & \text{ку́ниjan} &= \text{'married' (of a man)} \\
\text{мальти́} &= \text{'mob', 'a lot'} & \text{мальтиjan} &= \text{'having a lot'} \\
\text{жку́} &= \text{'spear'} & \text{жку́jan} &= \text{'having a spear'} \\
\text{жанпа́р} &= \text{'beard'} & \text{жанпа́раан} &= \text{'bearded'} \\
\text{аркун} &= \text{'battle', 'fight'} & \text{аркунаан} &= \text{'belligerent'} \\
\text{милт} &= \text{'eyes'} & \text{милтта́т} &= \text{'to be born'} \\
\text{pirи́на} &= \text{'up', 'high up'} & \text{pirи́наа́т} &= \text{'to grow up'}
\end{align*}
\]
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 ica-ja, ica-ja-µa, etc., the monosyllabic stem ja- ('to hit'), when not suffixed by -ji or -ji+µa etc. is augmented to jaa.

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

In the case of the demonstrative stems caa, paa 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.1 Note that in the nominative it is augmented to juru. Compare the locative juri-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 ja 'complementiser-me hit' is pronounced either as [ŋi∫a] or [ŋi ja:]. 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 [kina wa].

2.13. ELISION AND DELETION

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

julpaja-jana 'father:son+and' > [julpaja:nw]
kala-ʃa 'neck' > [kala:], ŋitiri 'centipede' > [ŋiti:] macumpa-jaan 'kangaroo+con' > [majuµbaen], [maµµba:n]

1But note also the locative of palja etc. §3.2.2.
A word-final vowel may be deleted before the initial a- of a following word.

\[ a-ni \> 'comp-you+give' \> anawa \]
\[ a-ni \> 'comp-me+give' \> anawa \]

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

\[ ja-naalu-it\> 'silent' (without talk) \]
\[ juru 'man' plus -iti 'lacking' occurs as juriti or juruiti. \]

Since the locative of juru is juru 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 jurujiga 'towards the man'.

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

\[ itimi \> 'will return' \> itimi ∼ itim \]
\[ kalkatuŋu \> 'Kalkatungu' \> kalkatųŋu ∼ kalkatuŋ \]

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

\[ i̇titi \> 'throw' \> ititi ∼ itir (see §2.5) \]

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

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

\[ aŋi kuŋuŋa ∼ anŋkuŋu 'will give a necklace' \]
\[ ənŋi kuŋi ∼ ənŋkuŋi 'lest he see me' \]

2.14. IDIOSYNCRATIC ALTERNATIONS

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

\[ iŋka ja = iŋkaja, iŋkaji 'go' \]
\[ ŋu- ja = ŋuja 'lie' \]
\[ ini ja = ini ja 'remain' \]
\[ ja- ja = jaJa 'hit' \]
\[ pati ja = patija 'tell' \]
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. 

\( \text{juna- 'run'} \) is \( \text{juni-} \) before the suffix -\( \text{nc\(a\)}u \): \( \text{juni\(n\)c\(a\)}u \) 'runs regularly' and before the past tense -\( \text{\(n\)a} \): \( \text{juni\(n\)a '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:

<table>
<thead>
<tr>
<th>I</th>
<th>II</th>
<th>III</th>
</tr>
</thead>
<tbody>
<tr>
<td>iu</td>
<td>iju</td>
<td></td>
</tr>
<tr>
<td>ia</td>
<td>ija</td>
<td></td>
</tr>
<tr>
<td>ii</td>
<td>iji</td>
<td>i:</td>
</tr>
<tr>
<td>ai</td>
<td>aji</td>
<td></td>
</tr>
<tr>
<td>au</td>
<td>awu</td>
<td></td>
</tr>
<tr>
<td>aa</td>
<td>a:</td>
<td></td>
</tr>
<tr>
<td>ui</td>
<td>uwi</td>
<td></td>
</tr>
<tr>
<td>ua</td>
<td>uwa</td>
<td></td>
</tr>
<tr>
<td>uu</td>
<td>uuwu</td>
<td>u:</td>
</tr>
<tr>
<td>#i</td>
<td>#ji</td>
<td></td>
</tr>
<tr>
<td>#u</td>
<td>#wu</td>
<td></td>
</tr>
</tbody>
</table>

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 /kuw/ may be pronounced [kuw], [kuwu] or [ku:] where [kuw] 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 phonotactic 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 /uw/ and other sequences such as /uij/. 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 /uw/ 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 /iu/ 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 ŋali ('we two'), mpaja ('you two') and puju ('they two') as ŋaliwa, 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.

<table>
<thead>
<tr>
<th>-i</th>
<th>-a</th>
<th>-u</th>
</tr>
</thead>
<tbody>
<tr>
<td>ŋali ('we two')</td>
<td>mpaja ('you two')</td>
<td>puju ('they two')</td>
</tr>
</tbody>
</table>

Ergative: [ŋali: - ŋali(ji)] [mpaja: - mpajaji] [pujuju]
Dative: [ŋali: - ŋali(ji)] [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 morphophonemnic rule deleting the j of the ergative from forms like /nəjii/ and /mpa:jai/. 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 /nəjii/ and /nəjiji/. In theory one could write one now and the other another time. To avoid confusion I will use a morphophonemnic spelling. This means that the ergative of /nəjii/ will be /nəjiji/ since /j/ appears distinctively with '-u stems' (/puj-uju/), and the dative will be /nəjii/. 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 aook'.

I will consistently avoid writing initial glides that are homorganic with the first vowel; thus I will write unu 'fəces' 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 [kuiiri] and it is only on the basis of a very small number of ultra-slow tokens that it has been phonemicised as kujirī.
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 [ii] 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, -iu occurs as the ergative of vowel stems of three syllables or more and -oku as the ergative of shorter stems, while -iti occurs as the locative of vowel stems of three syllables or more and -piia with shorter stems.

<table>
<thead>
<tr>
<th>macumpa</th>
<th>macumpatu</th>
<th>macumpa ti</th>
<th>'kangaroo'</th>
</tr>
</thead>
<tbody>
<tr>
<td>kupu</td>
<td>kupunku</td>
<td>kupupia</td>
<td>'spider'</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>caampa</th>
<th>caampa tu</th>
<th>caampa ti</th>
<th>'kingfisher'</th>
</tr>
</thead>
<tbody>
<tr>
<td>kaaci</td>
<td>kaacitu</td>
<td>kaaciti</td>
<td>'friend'</td>
</tr>
<tr>
<td>titi</td>
<td>titiitu</td>
<td>titiiti</td>
<td>'centipede'</td>
</tr>
</tbody>
</table>

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 ĵúar-kúŋa 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 [jaŋa: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 (−iu or −ŋku) in contradistinction to nominals in PATIENT (P) function and nominals in INTRANSITIVE SUBJECT (S₁) function:

(3.1) marapai caa icamají
     woman here laugh
     'The woman laughs'.

(3.2) marapai-tu caa kunka tumji-na
     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 S₁ and A functions and another for P:

(3.3) marapai caa icamají-na-ju
     woman here laugh -past-3rd dual
     'The two women laughed'.

(3.4) marapai-tu caa kunka tumji-na-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) maṭu maa-ci ūji
     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) maçu-ju tuji wakari na-ci-wa-ţaņu
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 ju- ('to cook') and arī ('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 -miņa (imperfect) and almost always with -ncanu (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 -pìn clauses (see §4.2.10.), where A in the subordinate clause co-references an actant in the governing clause.

(3.7) na-ţu naŋa marapai ıŋka-cin pila-piš-a wajinti-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 la-mi but laji-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, -ncaaja normally marks dependent verbs in purposive/infinite-like complement clauses, but it may be used marking an independent verb indicating simple future tense. In this case we find -ncaaja suffixed to the non-'ji' form e.g. la-ncaaja '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

<table>
<thead>
<tr>
<th>Case</th>
<th>Vowel Stems</th>
<th>Consonant Stems</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Stems of 2 Syllables</td>
<td>Stems of more than two syllables</td>
</tr>
<tr>
<td>Nominative</td>
<td>- nasal stop cluster</td>
<td></td>
</tr>
<tr>
<td></td>
<td>kupu (spider)</td>
<td>macumpa (kangaroo)</td>
</tr>
<tr>
<td></td>
<td>kunka (stick)</td>
<td>macumpa-tu</td>
</tr>
<tr>
<td>Ergative/</td>
<td>kupa-ŋku</td>
<td>kalpin (young man)</td>
</tr>
<tr>
<td>Instr</td>
<td>kupa-pia</td>
<td>kalpin-tu</td>
</tr>
<tr>
<td>Locative I</td>
<td>kupu-u(ja)</td>
<td>kalpin-pia</td>
</tr>
<tr>
<td>Dative</td>
<td>kupa-ŋiu</td>
<td>kalpin-ku</td>
</tr>
<tr>
<td>Locative II</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Causal</td>
<td>As for ergative plus -ŋu</td>
<td></td>
</tr>
<tr>
<td>Ablative</td>
<td>&quot; &quot; locative I &quot; -ŋu</td>
<td></td>
</tr>
<tr>
<td>Allative I</td>
<td>&quot; &quot; dative &quot; -ŋa</td>
<td></td>
</tr>
<tr>
<td>Allative II</td>
<td>&quot; &quot; locative II&quot; -ŋa</td>
<td></td>
</tr>
<tr>
<td>Prolocative</td>
<td>-ŋun (see §3.5.10 for allomorphs)</td>
<td></td>
</tr>
</tbody>
</table>

The locative -pia and the dative -ku are used with all consonant stems. The ergative also has allomorphs -tu with r, ṇ and Ɐ 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 piji 'mother’s brother' declines like ṣali ‘we two’, kuja ‘father’ like mpaja ‘you two’ and maṭu ‘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

<table>
<thead>
<tr>
<th>Nominative</th>
<th>Ergative</th>
<th>Locative</th>
<th>Dative</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>maa</td>
<td>maaṭu</td>
<td>maaṭa</td>
<td>maacuwa</td>
<td>'food'</td>
</tr>
<tr>
<td>ati</td>
<td>atiṇṭu</td>
<td>atiṇṭa</td>
<td>atiṇcuwa</td>
<td>'meat'</td>
</tr>
<tr>
<td>mpuu</td>
<td>mpuuku</td>
<td>mpuuka</td>
<td>mpuuu(ja)</td>
<td>'rotten'</td>
</tr>
<tr>
<td>ṭuũu</td>
<td>ṭuũuku</td>
<td>ṭuũuka</td>
<td>ṭuũuu(ja)</td>
<td>'hole'</td>
</tr>
<tr>
<td>ṇkaa</td>
<td>ṇkaāku</td>
<td>ṇkaāka</td>
<td>ṇkāraa(ja)</td>
<td>'yam'</td>
</tr>
<tr>
<td>muu</td>
<td>mulu</td>
<td>mulu</td>
<td>muruu</td>
<td>'camp'</td>
</tr>
<tr>
<td>kuu</td>
<td>kuũŋku</td>
<td>kuũŋka</td>
<td>kuuja</td>
<td>'water'</td>
</tr>
<tr>
<td>ucan</td>
<td>ucanũtu</td>
<td>ucanũta</td>
<td>ucanũja</td>
<td>'fire'</td>
</tr>
<tr>
<td>ulaaŋ</td>
<td>ulaaŋtu</td>
<td>ulaaŋṭa</td>
<td>ultraaŋ</td>
<td>'high(of sun)'</td>
</tr>
<tr>
<td>-nin</td>
<td>-nantu</td>
<td>-nonta</td>
<td>-nanka</td>
<td>participle</td>
</tr>
<tr>
<td>-wa</td>
<td>-watu</td>
<td>-wata</td>
<td>-waka</td>
<td>ligative*</td>
</tr>
<tr>
<td>-ja</td>
<td>-jaṭu</td>
<td>-jaṭa</td>
<td>-jaka</td>
<td>ligative*</td>
</tr>
<tr>
<td>juru</td>
<td>itiŋji</td>
<td>juruŋu</td>
<td>juruku</td>
<td>'man'</td>
</tr>
<tr>
<td>ṭuku</td>
<td>ṭukuŋu</td>
<td>ṭukuŋu</td>
<td>ṭukuŋu</td>
<td>'dog'</td>
</tr>
<tr>
<td>jaun</td>
<td>jaunũtu</td>
<td>jaunũtu</td>
<td>jaunũku</td>
<td>'big'</td>
</tr>
<tr>
<td>maḷṭa</td>
<td>maḷṭaŋji</td>
<td>maḷṭapi</td>
<td>maḷṭa</td>
<td>'mob'</td>
</tr>
<tr>
<td>paḷṭa</td>
<td>paḷṭaŋku</td>
<td>paḷṭiŋja</td>
<td>paḷṭaŋu(ja)</td>
<td>'fork(of tree)'</td>
</tr>
<tr>
<td>kaṇṭa</td>
<td>kaṇṭiŋja</td>
<td>kaṇṭaŋja</td>
<td>kaṇṭaŋu(ja)</td>
<td>'head'</td>
</tr>
<tr>
<td>junũu</td>
<td>junũaŋja</td>
<td>junũaŋja</td>
<td>junũu(ja)</td>
<td>'arm'</td>
</tr>
<tr>
<td>nulũu</td>
<td>nulũŋku</td>
<td>nulũiŋja</td>
<td>nulũu(ja)</td>
<td>'thighs'</td>
</tr>
<tr>
<td>anṭa</td>
<td>anṭaŋku</td>
<td>anṭiŋja</td>
<td>anṭaŋu(ja)</td>
<td>'mouth,lips'</td>
</tr>
</tbody>
</table>

* See §3.5.4., §3.5.11. §5.8. (cont.)
The locative allomorph -ŋu appears sporadically with regular nouns in place of -i or -pi a e.g. ūarŋu or ūarpia 'snake', maŋapaŋu or maŋapaii 'woman'.

The locative II is -ŋii 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 -ŋu or -ŋa, except that the ablative of muu is muľaŋu.

3.2.3. PERSONAL PRONOUNS

<table>
<thead>
<tr>
<th>Nominative</th>
<th>Ergative</th>
<th>Locative</th>
<th>Dative</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>munju</td>
<td>munjuku</td>
<td>munjiija</td>
<td>munjuu(ja)</td>
<td>'face'</td>
</tr>
<tr>
<td>kunkuju</td>
<td>kunkujuju</td>
<td>kunkijuju</td>
<td>kunkujuu</td>
<td>'child'</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Singular</th>
<th>'I'</th>
<th>'you'</th>
<th>'he, she, it'</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nom</td>
<td>ŋai</td>
<td>pini</td>
<td>ūa, pakai (see notes below)</td>
</tr>
<tr>
<td>Erg</td>
<td>ŋatu</td>
<td>pinti</td>
<td>ūji (see notes below)</td>
</tr>
<tr>
<td>Loc I</td>
<td>ŋaiŋu</td>
<td>piniŋu</td>
<td>aŋaŋu</td>
</tr>
<tr>
<td>Dat</td>
<td>ŋaci</td>
<td>punku</td>
<td>aŋaa, pakaja</td>
</tr>
<tr>
<td>Causal</td>
<td>ŋaciwa</td>
<td>punkuwa</td>
<td>aŋawa</td>
</tr>
<tr>
<td>Abl</td>
<td>ŋaiŋuwaŋu</td>
<td>piniŋuwaŋu</td>
<td>aŋaŋuwaŋu</td>
</tr>
<tr>
<td>All I</td>
<td>ŋaiŋiŋa</td>
<td>punikwaŋa</td>
<td>aŋaŋa</td>
</tr>
<tr>
<td>All II</td>
<td>ŋaiŋiŋiga</td>
<td>piniŋiŋiga</td>
<td>aŋaŋiga</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dual</th>
<th>'we two'</th>
<th>'you two'</th>
<th>'they two'</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nom</td>
<td>ŋali</td>
<td>mpaja</td>
<td>puju</td>
</tr>
<tr>
<td>Erg</td>
<td>ŋaliŋi</td>
<td>mpajaŋi</td>
<td>puju</td>
</tr>
<tr>
<td>Loc I</td>
<td>ŋaliŋu</td>
<td>mpajaŋu</td>
<td>puŋu</td>
</tr>
<tr>
<td>Dat</td>
<td>ŋaliŋi</td>
<td>mpajaa</td>
<td>pujuu</td>
</tr>
<tr>
<td>Causal</td>
<td>ŋaliŋwa</td>
<td>mpajawa</td>
<td>pujiwa</td>
</tr>
<tr>
<td>Abl</td>
<td>ŋaiŋuwaŋu</td>
<td>mpajaŋuwaŋu</td>
<td>puŋuwaŋu</td>
</tr>
<tr>
<td>All I</td>
<td>ŋaliŋiŋa</td>
<td>mpajaŋaŋa</td>
<td>pujuŋa</td>
</tr>
<tr>
<td>All II</td>
<td>ŋaliŋiŋiga</td>
<td>mpajaŋiŋiga</td>
<td>pujiŋiŋa</td>
</tr>
</tbody>
</table>

(cont.)
There are no occurrences of -ŋi in with pronouns and -num 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 $a$- 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. ḋiji consistently refers to third person singular in A function. I take it to belong to the same paradigm as $a$-, but since there is a formal discrepancy and since the appearance of ḋiji 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 ḋiji to be used only for emphasis. It is true that ḋiji 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) ḋi-ji kuuŋku ḋai ḋanjamaji ḋinta
3s-erg rain-erg me find in:the:middle
'The rain caught me in the open'.

(3.9) ḋi-ji iki-ji-ka caa ḋuku ḋa-ci ḋaji ḋampu-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 ḋi-ji is introduced so that the third person can be stressed.
The form jaa given as the nominative for this paradigm is particularly dubious. There is a particle jaa 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 jaa seems to parallel jiji, jaa appearing with nouns in S₁ (but not P) function, whereas jiji appears with nouns in A function. Given that the third person is normally expressed by zero in S₁ function, a third person nominative is in a sense 'meaningless' and there is obviously room for confusion with the meaningless jaa 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.

(3.10) ŋa-ŋu patu-ma pua, ŋai uŋku-ũ patu-ma li-ji-ka
I-erg call-pres o:tsis me young:sib call-pres 3s-erg-∅
'I call her pua; she calls me uŋku-ũ'.
(pua 'older sister', uŋku-ũ 'younger sibling')

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

-ąpci (also -įpci and -ųpci)

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

(3.12) wampa paa ŋaŋatį maţu-ųpci-ũ
girl there sit mother-locative
'The girl is sitting over there with her mother'.

mųŋiti

The free form mųŋiti 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) kunu caa pun-ku-ka, mųŋiti caa paajakia
not here you-dat-∅ his here back
'It's not yours. It belongs to him over here at the back'.

The form laa given as the nominative for this paradigm is particularly dubious. There is a particle 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 laa seems to parallel jiji, laa appearing with nouns in S₁ (but not P) function, whereas jiji appears with nouns in A function. Given that the third person is normally expressed by zero in S₁ function, a third person nominative is in a sense 'meaningless' and there is obviously room for confusion with the meaningless 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) laa pijapija waŋti-waŋti ŋai-ŋu
he child follow-follow me-loc
'The kid keeps following me'.

-ąpci (also -įpci and -ųpci)

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

(3.12) wampa paa ŋaŋatį maţu-ųpci-ũ
girl there sit mother-locative
'The girl is sitting over there with her mother'.

mųŋiti

The free form mųŋiti 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) kunu caa pun-ku-ka, mųŋiti caa paajakia
not here you-dat-∅ his here back
'It's not yours. It belongs to him over here at the back'.
muni may be inflected. muniwa 'in his' and muniwa rank '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. cankaaj and cankajau, 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. paju watikajau 'from those two'.

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

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

See also §6.1. and §5.10.2.

<table>
<thead>
<tr>
<th>Singular</th>
<th>'this'</th>
<th>'this'</th>
<th>'that'</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nom</td>
<td>caa</td>
<td>naa</td>
<td>paa</td>
</tr>
<tr>
<td>Erg</td>
<td>cipaji</td>
<td>naji</td>
<td>paji</td>
</tr>
<tr>
<td>Loc I</td>
<td>cankaaj</td>
<td>naaj</td>
<td>panni</td>
</tr>
<tr>
<td>Dat</td>
<td>cipaa</td>
<td>nau</td>
<td>pau</td>
</tr>
<tr>
<td>Causal</td>
<td>cipaja</td>
<td>naa</td>
<td>paja</td>
</tr>
<tr>
<td>Ab1</td>
<td>cankajau</td>
<td>paju</td>
<td>paju</td>
</tr>
<tr>
<td>All I</td>
<td>cipaan</td>
<td>nauwa</td>
<td>panna</td>
</tr>
<tr>
<td>All II</td>
<td>cipani</td>
<td>pann</td>
<td>panii</td>
</tr>
</tbody>
</table>
### 3.2.5. INTERROGATIVE PRONOUNS

<table>
<thead>
<tr>
<th>Dual</th>
<th>'these two'</th>
<th>'those two'</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nom</td>
<td>caawatikaja</td>
<td>naawatikaja (As for caa)</td>
</tr>
<tr>
<td>Erg</td>
<td>caawatikajaju</td>
<td>paawatikaja (As for caa)</td>
</tr>
<tr>
<td>Loc I</td>
<td>caawatikajanu</td>
<td>paawatikajanu</td>
</tr>
<tr>
<td>Dat</td>
<td>caawatikajaa</td>
<td>paawatikajaa</td>
</tr>
<tr>
<td>Causal</td>
<td>caawatikajanuwanu</td>
<td>paawatikajanuwanu</td>
</tr>
<tr>
<td>Abl</td>
<td>caawatikajaana</td>
<td>paawatikajaana</td>
</tr>
<tr>
<td>All I</td>
<td>caawatikajaniiga</td>
<td>paawatikajaniiga</td>
</tr>
<tr>
<td>All II</td>
<td>caawatikajaniiga</td>
<td>paawatikajaniiga</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Plural</th>
<th>'these'</th>
<th>'those'</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nom</td>
<td>caamiakaja</td>
<td>naamiakaja (As for caa)</td>
</tr>
<tr>
<td>Erg</td>
<td>caamiakajaju</td>
<td>paamiakaja (As for caa)</td>
</tr>
<tr>
<td>Loc I</td>
<td>caamiakajanu</td>
<td>paamiakajanu</td>
</tr>
<tr>
<td>Dat</td>
<td>caamiakajaa</td>
<td>paamiakajaa</td>
</tr>
<tr>
<td>Causal</td>
<td>caamiakajanuwanu</td>
<td>paamiakajanuwanu</td>
</tr>
<tr>
<td>Abl</td>
<td>caamiakajaana</td>
<td>paamiakajaana</td>
</tr>
<tr>
<td>All I</td>
<td>caamiakajaniiga</td>
<td>paamiakajaniiga</td>
</tr>
<tr>
<td>All II</td>
<td>caamiakajaniiga</td>
<td>paamiakajaniiga</td>
</tr>
</tbody>
</table>

### 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 repre-
sents 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 -mîga (imperfect) and -mpa (perfect), the
bound forms for S₁ and A are apparently obligatory and the free forms
optional.

A full set of S₁/A forms is available. It is clear from the use of
-mîga 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. -1a 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 inde-
pendent indicative sentences with bound forms that represent P in the
imperative and in subordinate clauses, they were rejected.

<table>
<thead>
<tr>
<th>S₁/A</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sing.1</td>
<td>-ŋi</td>
</tr>
<tr>
<td>2</td>
<td>-ŋi</td>
</tr>
<tr>
<td>3</td>
<td>-ŋi</td>
</tr>
<tr>
<td>Dual 1</td>
<td>-1a</td>
</tr>
<tr>
<td>2</td>
<td>-1a</td>
</tr>
<tr>
<td>3</td>
<td>-1a</td>
</tr>
<tr>
<td>Pl. 1</td>
<td>-ta</td>
</tr>
<tr>
<td>2</td>
<td>-ta</td>
</tr>
<tr>
<td>3</td>
<td>-ta</td>
</tr>
</tbody>
</table>

-muju (third dual S₁ or A) is used in the present tense and -ju else-
where.

The free forms mpaja 'you two', puju 'they two', путу 'you mob' and
jina 'they' may be criticised 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) ṇaka-a ṇini aɾi-li-miña-n? aɾi-li-miña-∅ 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 -miña 'imperfect' A is marked by the nominative and P by the dative, i.e. the anti-passive construction is used.

(3.15) ica-ṗin-kin ṇini muŋun-tu ṇini ɲarkumaji-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) ṇini pa-ji aŋa-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 $S_1$ (-ja or -ji represents the imperative cf. §2.14).

<table>
<thead>
<tr>
<th>Form</th>
<th>Singular</th>
<th>Dual</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>iŋka-ji-n</td>
<td>iŋka-ja-mpi</td>
<td>iŋka-ja-tu</td>
</tr>
</tbody>
</table>

With the imperative of transitive verbs the following forms represent A. They are also used to mark $S_1$ with a few two-place intransitive verbs such as ŋkuma 'to look for'.

<table>
<thead>
<tr>
<th>Form</th>
<th>Singular</th>
<th>Dual</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ja-ja-∅</td>
<td>ja-ja ku-mpi</td>
<td>ja-ja ku-tu</td>
</tr>
</tbody>
</table>

'Hit (him, her it)!!'
'You two hit (him,her, it)!!'
'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-:

<table>
<thead>
<tr>
<th>Form</th>
<th>Singular</th>
<th>Dual</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ku-ŋi</td>
<td>ku-la</td>
<td>ku-ju</td>
</tr>
<tr>
<td></td>
<td>ku-ta</td>
<td>kina</td>
<td></td>
</tr>
</tbody>
</table>

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-:

<table>
<thead>
<tr>
<th>Form</th>
<th>Singular</th>
<th>Dual</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ia-ja kina</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

'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 *ani '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:

- *awaŋi or *awa *kuŋi 'You (singular) give it to me!'
- *awaŋa or *awa *kuła 'You (singular) give it to us two!'
- *awata or *awa *kuta 'You (singular) give it to us mob!'

The forms *kuju and *kina are generally confusing since they may refer to *S₁/A in some constructions and to P (or RECIPIENT) in others. For example, they mark *S₁ with intransitive verbs when the imperfect marker -*maŋti is used:

(3.17) *ku*lawatara *na*tačati-*maŋti-*kuju
   twin sit-imperfect-dual
   'The twins are sitting together'.

(3.18) *juru *ja*ti-*maŋti-*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 *S₁/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 *S₁/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 -*ŋiŋu* 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-*ga *ŋata *ŋarkun-ku *a*ti *ja*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 ja.

<table>
<thead>
<tr>
<th>S/A</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sing 1</td>
<td>laa</td>
</tr>
<tr>
<td>2</td>
<td>ani</td>
</tr>
<tr>
<td>3</td>
<td>ai</td>
</tr>
<tr>
<td>Dual 1</td>
<td>ali</td>
</tr>
<tr>
<td>2</td>
<td>au</td>
</tr>
<tr>
<td>3</td>
<td>alu</td>
</tr>
<tr>
<td>Plur 1</td>
<td>ati</td>
</tr>
<tr>
<td>2</td>
<td>au</td>
</tr>
<tr>
<td>3</td>
<td>aina</td>
</tr>
</tbody>
</table>

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 laa kina "1s > 3 du laa kuju
3 pl > 1s anji 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 S₄ suffixed to an auxiliary particle uŋu, or in another variant it appears with a bound pronoun for A suffixed to kuŋu (ku + uŋu, uŋu has an apparent free alternant ūŋa in the non-singular).

(3.20) rumpi ŋai ŋuji uŋu-n
fear I fall lest-you
'I'm afraid you'll fall'.

(3.21) rumpi ntu ľuma kuŋu-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 unu).

(3.22) rumpi  naï  jaku-juwu ica ku-Ņi
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 S₁ 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 S₁ or A:

' I'm afraid he might bite'.
' they two might bite'.
' they (pl.) might bite'.

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

<table>
<thead>
<tr>
<th>S₁/A</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sing 1</td>
<td>(k)unu</td>
</tr>
<tr>
<td></td>
<td>(k)unu</td>
</tr>
<tr>
<td></td>
<td>(k)unu</td>
</tr>
<tr>
<td>Dual 1</td>
<td>(k)unu</td>
</tr>
<tr>
<td></td>
<td>(k)unu</td>
</tr>
<tr>
<td></td>
<td>kuju*</td>
</tr>
<tr>
<td>Pl 1</td>
<td>(k)uŋur</td>
</tr>
<tr>
<td></td>
<td>(k)uŋur</td>
</tr>
<tr>
<td></td>
<td>kina*</td>
</tr>
</tbody>
</table>

* 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, kuŋəjın for 1s > 2s (first singular acting on second singular, kuŋəjınpaju (1s > 2du) and kuŋəjıñitu (1s > 2pl). Other "combinations" recorded are

kuŋu kina  1s > 3pl
kuŋun kina  2s > 3pl
kuŋun kuju  2s > 3du
kuŋiju  3du > 1s
kuŋina  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 [aɡin] or [aʃin]. If we identify the -jin of kuṇajin with the -jin variant of -kin, we are left with -ŋa- as first person singular. -ŋa 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 - ˈn

The nominative marks citation forms, $S_1$ and P. It also marks A in the anti-passive construction.

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

(3.24) maɾapai-ju kupu ḟajii-ŋa woman-erg spider kill-past
'The woman killed the spider'.

(3.25) maɾapai ucan-ku ḟincii-maŋti 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) aŋi-ti-muju ca-atiƙaja give-re-they:2 this-dual
'These two gave one another things'.

The verb aŋi '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) maɾapai-ju ati aŋa nun-kugai? woman-erg meat gave you-allative
'Did the woman give meat to you?'
(3.27b) marapai-tu pini ati ana-kin?
woman-erg you meat gave-you
'Did the woman give you meat?'

3.5.2. ERGATIVE/INSTRUMENTAL -tu, -ŋu

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

(3.28) wampaŋa pini ŋa-tu laji-na accidentally you I-erg hit-past
'I hit you accidentally'.

(3.29) juku cipa-ji maļi kŋali-tu spear this-erg grease fat-erg
'This (man) greased the spear with fat'.

(3.30) ŋaimi-ja kutu walkaţu ţuku-ju chase-imp you lizard dog-erg
'Chase the lizard with a dog, you mob!'

(3.31) kŋtuŋu caaka kupaŋuru-ka canpara-tu ŋka lame here old man-ŋ stick-erg go
'The old man is lame and walks with a stick'.

(3.32) makaťi ńai pinc-ti-ŋa kankaŋi-tu hand I out-re-past knife-erg
'I cut my hand with a knife'.

(3.33) ŋţia-ku ńai ńuji-ŋa stone-erg I fall-past
'I fell over a stone'.

(3.34) wanna ła-ja kina ńaur-ka; li-ja kutu; ńurkunga don't hit-imp them child-ŋ 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-ńcaŋu kalkatuŋu-tu 'to call something/someone by such-and-such a word in Kalkatuŋu'.

3.5.3. LOCATIVE I -ti, -pi

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. arkuonaŋa 'to be wild at') and there are a number of metaphorical and idiomatic usages.
(3.35) miłłitàtī-ña  naï paimara-tı
be born-past I Clonaurry-loc
'I was born in Clonaurry'.

(3.36) warampaña ̀nini-_cg caa nuu pikaja
axe you-loc here ìñe near
'The axe is lying near you'.

(3.37) naï iŋka-mi ²aun-kuŋa naï-cí maŋu-ŋu
I go-fut town-all me-dat mother-loc
'I'm going into town with my mother'.

(3.38) naï iti-ми ̀tujāl-ŋara-tı
I return-fut month-other-loc
'I'll come back in a month'.

(3.39) ati caa naï-a ţu aŋa jalkapaři-tı
meat here I-erg gave boomerang-loc
'I gave him meat in exchange for a boomerang'.

(3.40) maa- tà na-tu utimaji
food-loc I-erg consume
'I used it [sc. money] up on food'.

(3.41) wamiļa-tı ̀nini na-tu ačiği
sleep-loc you I-erg produce
'I dreamed of you'.

(3.42) naïka jaun-pia-ka wacalii-ŋu
this big-loc-Ø first-adj
'This one is the biggest'(lit. 'first in big(ness)')

(3.43) la-ti-muju caa mərapai-tı
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 la-ti-na  piña-piña-ŋara-tı
you hit-re-past child-other-loc
'You have been fighting with another kid'.

(3.45) naïka-tı caa arkunana-akit
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 participal phrase qualifying the ergative must be used, the locative referring to the $S_1$ of the embedded phrase.
(3.46) wakaŋi nŋa-ŋu paa nŋa kuŋka ini-ŋin-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 ara ('enter'), juu ('climb on'), wani ('follow') all take locative complements. nantii ('bark at') takes the locative or dative.

Examples of the locative suffixed following the participle -nin 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:

<table>
<thead>
<tr>
<th>Fluent</th>
<th>Slow, deliberate</th>
</tr>
</thead>
<tbody>
<tr>
<td>spider</td>
<td>kupu-u</td>
</tr>
<tr>
<td>kangaroo</td>
<td>macumpa-a</td>
</tr>
<tr>
<td>breast</td>
<td>mimi-i</td>
</tr>
</tbody>
</table>

-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 -miŋa and almost always with the habitual aspect marker -naŋu. It is often used with the verbs ịu- (to cook) and ịrị (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) nŋa-ci maŋu maa-ci ịjuji
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 naŋama 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 -maŋi 'imperfect', the anti-
passive is used. If A is dual or plural, -mangi is followed by -kuju or kina respectively.

(3.48) caa-atikaja nata-nati-mangi-kuju tuar-ku laji-na 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 nata-nati and the A of la-

The dative marks the complement of verbs like waira $\nu$- 'to like' (literally: heart lie) and uqara '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) nata punpati kalkatungu-u we speak Kalkatungu-dat
'We speak Kalkatungu'.

The complement of punpati may alternatively be expressed in the locative II form: kalkatungu-nii.

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 iŋka 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) nα-ŋu ˚uji-na pun-ku wakari
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) wakari nα-ŋu pun-ku ˚uji-na
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 -ncama to the stem. See examples in §5.3.7.

(3.53) cuťu caa pun-ku
coolaman here you-dat
'The coolaman is yours'.

(3.54) ñai muřu-u ña-u
I camp-dat this-dat
'I belong to this camp'.

(3.55) ñata ajar-ku janaalu-u
we one-dat language-dat
'We belong to one language'.

3.5.5. LOCATIVE II -ňii

The suffix -ňii 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 ñai muŋu-ňii ñuji-ŋa
go-part I face-loc:II fall-past
'Walking along I fell on my face'.

(3.57) ñata punpaɭi jalaŋŋa-ňii
we speak Yalar紧紧围绕-loc:II
'We speak Yalar环绕'.

Note also ñunŋkaɭi-ňii 'downwind'.
-ňii occurs too infrequently for me to be able to discuss the case relation it expresses. It may express the LOCATIVE, the difference between -ňii and -ɪi/-pi-a being semantic.
3.5.6. **CAUSAL** -èrentu, -ेकेंगु

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-èrentu नै मिली वाकिनी
pituri-caus I eyes spin
'I'm high on pituri'.

(3.59) नै रूम्पी गाई इती-जेंगु मिलीवाकिनी-पिगुं
I fear here man-causalintoxicated-part-causal
'I'm afraid of drunken men'.

(3.60) अति-जेंगु नै माण्टी-गा वाक़री-जेंगु अरी-ली-निन
meat-caus I ate-past fish-caus eat-a/p-part
'I'm full because I ate the fish'.

3.5.7. **ABLATIVE** -ेंगु, र्यांगु

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

(3.61) माण्टा जानी वातारा काजपी-जेंगु
many white emerge plane-ablative
'A lot of white people got off the plane'.

(3.62) कुंका चाँ मानी जी पिकु-जु चामीकाजा-जुवाङु
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 S1 or P function in all attested examples.

3.5.8. **ALLATIVE I** -कुंगा, 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 अँ 'to give', नुणाजुनाणि 'to teach', पुन्पाति 'to talk to' and जुमाणि 'to explain'. Punpati seems to be unusual in being intransitive but taking a RECIPIENT.

(3.63) इंका-गा नै ताउन-कुंगा
go-past I town-allative
'I went to town'.

(3.64a) मारपाई पुन्पाति-गा ना-सिंगा
woman speak-past me-all
'A woman spoke to me'.
48

(3.64b) maŋapai punpāti-ŋa-ŋi
woman speak-past-me
'A woman spoke to me'.

(3.65) jumantijjŋa ŋa-cinçə cipajj
explain language me-all this-erg
'He explains the language to me'.

(3.66) putur caa-kq kanimagincir-ka ŋuți-ʊŋa ini
good here policemen-Ø you-all be
'The policeman is good to you people'.

(3.67) ŋiia ŋa-ți iiti-ŋa țuku-ʊŋa
stone I-erg throw-past dog-all
'I threw a stone at the dog'.

(If the target is hit, one uses înci- 'to hit with a
missile' with the missile in ergative and target in
nominative).

3.5.9. ALLATIVE II -ŋiiga

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

(3.68) îŋka-ŋa-ju taun-ŋiiga
go-past-they:2 town-allative:ii
'They went towards town'.

(3.69) wațiści-ŋiiga caaka ŋaŋiị cipajja maa-ci maļimputi
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 preposi-
tions '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 -gun

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

(3.70) cipajji ŋai jakaŋi matsu-înci--gun
this-erg me think mother-his-for
'He took me for his mother'.

(3.71) ŋaįli-ŋaį ŋa-ți maniji macumpa-gun
wallaby I-erg take roof-for
'I mistook the wallaby for a kangaroo'.
-γυν has not been observed with any other consonant stems except for kalpin '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. γα-σί ματυ 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.

(3.72) γα-σί πινι jakapiji uli-πιν-an
I-erg you think die-part-for
'I thought you had died'.

(3.73) γαι γα-σί-ωα-τυ kukuju-τυ απα κυυ
me me-dat-lig-erg daughter-erg gave water
'My daughter gave me water'.

(3.74) kupanuru-μα-τυ γαι icaji
old:man-dat-lig-erg me bite
'The old man's (dog) bit me'.

(3.75) γα-σε caa γαισα μαραπαι ματυ-ινε jo-κυ ματυ-πιν
I-erg here saw woman mother-her-dat-lig-dat cook-a/p-part

(3.76) muni-wa-ταντα cankajantù inka maa-ci ati-ενε
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) γα-σί ματυ-τυ τυκυ laji-να
me-dat mo-erg dog hit-past
'My mother hit the dog'.

(3.78) γαι γα-σε κανα μαραπαι ματυ-ινε jo-κυ ματυ-πιν
I-erg here saw woman mother-her-dat-lig-dat cook-a/p-part

(3.79) γαι γα-σε κανα μαραπαι ματυ-ινε jo-κυ ματυ-πιν
I-erg here saw woman mother-her-dat-lig-dat cook-a/p-part

(3.80) γαι γα-σε κανα μαραπαι ματυ-ινε jo-κυ ματυ-πιν
I-erg here saw woman mother-her-dat-lig-dat cook-a/p-part
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-ʈu qa-ci-wa ʈuku ɬaji-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.
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 - marapaiju ucan manii 'The woman burns the wood'. Similarly, ații occurs as an intransitive - kuu ații 'Rain falls', and as a transitive - kacapi-țu kuțu ații '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)

<table>
<thead>
<tr>
<th>verb</th>
<th>meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>țuna</td>
<td>run</td>
</tr>
<tr>
<td>țuna</td>
<td>fear</td>
</tr>
<tr>
<td>țuna</td>
<td>remain</td>
</tr>
<tr>
<td>ața</td>
<td>enter</td>
</tr>
<tr>
<td>ața</td>
<td>go back</td>
</tr>
<tr>
<td>ina</td>
<td>go</td>
</tr>
<tr>
<td>ina</td>
<td>die</td>
</tr>
<tr>
<td>ina</td>
<td>lie down</td>
</tr>
</tbody>
</table>

(b) transitive (open class)

<table>
<thead>
<tr>
<th>verb</th>
<th>meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ța-</td>
<td>hit, kill</td>
</tr>
<tr>
<td>ța-</td>
<td>chop</td>
</tr>
<tr>
<td>ța-</td>
<td>scratch</td>
</tr>
<tr>
<td>ța-</td>
<td>take</td>
</tr>
<tr>
<td>ța-</td>
<td>bring/send back</td>
</tr>
</tbody>
</table>

(c) transitive (-ti stems)

<table>
<thead>
<tr>
<th>verb</th>
<th>meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>țiti</td>
<td>throw</td>
</tr>
<tr>
<td>țiti</td>
<td>make</td>
</tr>
<tr>
<td>țiti</td>
<td>dig</td>
</tr>
<tr>
<td>țiti</td>
<td>tell</td>
</tr>
</tbody>
</table>

These verbs are irregular in that the final -i may be omitted before the suffixes -nin, -mi and -mia and also when no suffix follows. Thus we find țiri or țiti, țirnin or țitișin, etc. The anti-passive -ji is suffixed to the stem with i : țitiși, țitișin, etc.
These verbs are irregular also in that the imperative forms are iijita, wa|ukata, 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)

<table>
<thead>
<tr>
<th>Verb</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1uma</td>
<td>'break'</td>
</tr>
<tr>
<td>)#ulurma</td>
<td>'catch hold of, grab'</td>
</tr>
<tr>
<td>1kuma</td>
<td>'look for, find'</td>
</tr>
<tr>
<td>1an1ama</td>
<td>'look for'</td>
</tr>
<tr>
<td>1cama</td>
<td>'laugh (at)'</td>
</tr>
</tbody>
</table>

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 1umi, )#ulurmi, etc. in the favourite construction when no anti-passive is used (see §4.3.) and 1umija, )#ulurmi, etc. in the imperative.

1uma is transitive (the intransitive verb 'to break' is 1uti, -ti probably representing the reflexive/reciprocal marker) as is )#ulurma. 1an1ama is transitive but frequently occurs in the anti-passive when it corresponds to 'look for' as opposed to 'find'. 1kuma is intransitive but it is almost always used with an overt complement in the dative. 1cama 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 1kumaji where one would find 1caji 'to bite' and 1kuma where one would find 1ca. A verb like 1kuma takes the distinctly transitive forms in the imperative for non-singular actor e.g. 1kumija kutu 'You mob look for it'.

(e) transitive (-wa stems)

<table>
<thead>
<tr>
<th>Verb</th>
<th>Present</th>
<th>Past</th>
<th>Future</th>
<th>Imperative</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a</td>
<td>1a, 1a</td>
<td>1a</td>
<td>awa</td>
<td>'give'</td>
</tr>
<tr>
<td>1an</td>
<td>1an</td>
<td>1an</td>
<td>1uwa</td>
<td>'see, look'</td>
</tr>
</tbody>
</table>

(f) transitive (-la stems)

These verbs take an imperative in -la and an anti-passive in -ji. 1ari 'eat' and 1kaa '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.
<table>
<thead>
<tr>
<th>Present</th>
<th>Past</th>
<th>Future</th>
<th>Imperative</th>
</tr>
</thead>
<tbody>
<tr>
<td>ari, arima</td>
<td>arimu</td>
<td>arimi</td>
<td>aia (sic) 'eat'</td>
</tr>
<tr>
<td>arili</td>
<td>arilina</td>
<td>arilimi</td>
<td></td>
</tr>
<tr>
<td>ci-aj</td>
<td>ci-ajiga</td>
<td>ci-ami</td>
<td>'take out, take off'</td>
</tr>
<tr>
<td>ci-aj</td>
<td>ci-ajiga</td>
<td>ci-ajimi</td>
<td></td>
</tr>
<tr>
<td>qkaaja, qkaama</td>
<td>qkaajaiga</td>
<td>qkaami</td>
<td>qkaaila 'spear'</td>
</tr>
<tr>
<td>qkaaji</td>
<td>qkaajaiga</td>
<td>qkaajimi</td>
<td></td>
</tr>
<tr>
<td>maiji</td>
<td>maijiga</td>
<td>maila</td>
<td>'rub'</td>
</tr>
<tr>
<td>maiji</td>
<td>maijiga</td>
<td>maijimi(sic)</td>
<td></td>
</tr>
<tr>
<td>n-ji</td>
<td>n-jiga</td>
<td>n-jiimi</td>
<td>n-jila 'sharpen'</td>
</tr>
<tr>
<td>n-jiaji</td>
<td>n-jiajiga</td>
<td>n-jiajimi</td>
<td></td>
</tr>
</tbody>
</table>

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

The imperfect aspect marker -miga takes the same anti-passive stem forms as -mi. Thus we find arilimiga but maijimiga.

The forms for 'eat' presented considerable phonetic difficulty. Earlier I notated them as aii and aii. Gavan Breen pointed out to me that I had misheard ari as aii, transferring the retroflexion to the following l. On checking the non-antipassive form, we found it was ari, 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 ari should be arii. Perhaps it is, but we find it difficult to hear l as well as r. Perhaps *i 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 li- ('to relinquish'), juu ('to go up'), ari ('to eat') and qkaa ('to spear') take an optional present tense -ma, and ari occurs with a past tense -mu. It is worth noting that the present tense and past tense in Yalarngga 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. pai '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 lua- ('to leave behind, to relinquish') occurs with past tense luajina, future luajimi. The imperative is supplied by lija the imperative of li-.

li- ('cook, burn') has a has a non anti-passive stem li-.
4.2. TENSE AND ASPECT SUFFIXES

4.2.1. -Ø 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) ūvar caa nţuu-ka ara
snake here hole-loc enter
'The snake is going into the hole'.

(4.2) ñitiirí caa waţara maţta kuu aţii-ţin-ta
centipede here emerge many water fall-participle-loc
'Centipedes appear in great numbers when it rains'.

4.2.2. -ŋa 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) ŋkara-a ŋkumaji-ŋa-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 ŋa-ţu ja-mi
not I-erg hit-fut
'I'm not going to hit him'.

(4.5) kuntu ŋai ja-ji-mi kuţukuju
not I hit-a:p-fut again
'I'm not going to hit him again'.

(4.6) kuntu ŋai ŋkara-a ŋanţama-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. -mɪŋa IMPERFECT I

The S₁/A bound pronouns are always used with mɪŋa and A always appears in the nominative and P in the dative.

(4.7) ɲaɾpa-ɬi ɲiɲi ini-mɪŋa-n other-loc you remain-imperf-you 'You're living with someone else'.

(4.8) ɲiɲi ɭai-mɪŋa-n jur-ɭu a-ɭi ɰi̱ci̱nta you hit-imperf-you man-dat comp-he bleed 'You're hitting him and making him bleed so that he's bleeding'.

4.2.5. maŋi IMPERFECT II

-maŋi 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 S₁ of a subordinate clause marked by -maŋi 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 -maŋi 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 -maŋi (example (4.11)). Compare -ɲin (§4.2.10.).

(4.9) kua-ɭaŋu caa kuw mʊŋtu-waʃintiɭi-maŋi creek-abl here water face-carry-imperf 'She is bringing water from the creek'.

(mʊŋtu indicates direction towards the speaker)

(4.10) ɲa-ci kuɭa-ɭi anka-maŋi-tu ləɭi caa ɭuŋumpiri me-dat fa-erg all-imperf-erg hit here bad 'My sick father hit the bad man'.

(4.11) ɲai iŋka piŋcamu-waʃara-maŋi-ɲiŋa I go sun-emerge-imperf-allative II 'I am going towards the rising sun'.

(4.12) paa ɲai piɭa-piɭa-ja ɲaŋiɭi iŋka-maŋi-i there I child-dat see go-imperf-dat 'I'm watching that kid walking'.

(4.13) caa-(w)atikaja ɲaɭaŋaɭi-maŋi-kuɭu ɭuɭi-ɲa thie-dual sit-imperf-dual snake-dat kill-past 'These two sitting together killed a snake'.

(4.14) ɲin-ɭi caa ɭuɭaŋi-mpa-n kunka ɭaŋci-maŋi-kina-ɭa you-erg here break-perf-you stick lie-imperf-plur-Ø 'You've broken the sticks that were lying about everywhere'.
4.2.6. -ŋcaŋu HABITUAL

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

(4.15) wii nini wani-ŋcaŋu warma-a
query you play-habit dance-dat
'Do you dance?'

kuntu ŋai wani-ŋcaŋu ʼNo, I don’tʼ.

(4.16) nini ňuji-ŋcaŋu maa-ci, kuntu ŋai ňuji-mia
you cook-habit food-dat not I cook-poss
'You (can) cook, but I can’t'.

(4.17) caa-(w)atikaja ňuji ňapantu-tu la-ti-ŋcaŋu-ju
this-dual always foot-erg hit-re-habit-they:2
'These two are always kicking one another'.

(4.18) maŋa-ŋujan maŋapai-ka ňika-çaŋu-na ŋkaŋa-a
much-times woman-Ø go-habit-they yam-dat
'Often the women used to go for yams'.

(4.19) ŋai ciñaamaji-ŋcaŋu ŋa-ci-wa-ku ŋaur-ku-wa,
I look-after-habit me-dat-lig-dat kid-dat-Ø
putapiti-ŋcaŋu
feed:up-habit
'I look after my kid and feed him up'.

4.2.7. -ŋcaaja PURPOSE

Note that all of the examples can be paralleled by the favourite construction (see §4.3). -ŋcaaja is almost certainly analysable as -ŋca (as in -ŋcaani and -ŋcaŋu) 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 -ŋcaaja as a main verb indicating purposive or simply future time.

(4.20) ŋata ňika maa-ci aši-li-ŋcaaja
we go food-dat eat-a/p-purposive
'We are going to eat (food)'.

(4.21) ucan caa aŋpa-ja maa-ci ňuji-manti-çaaja
(For manti wood here gather-imp food-dat cook-with-purposive see
§5.3.6.)
'Gather some wood to cook (food) with'.

(4.22) muntunara ŋa-šu ani-ŋcaaja ſuku
other I-erg give-purp dog
'I’m going to give it to the other dog'.

(4.23) kanimajinci ſaali muntunati ſa-ti-ŋcaaja
policeman:erg us:2 prevent hit-re-purp
'The policeman stopped us from fighting'.
(Compare example (4.88)).
(4.24) ʰiini ʰiŋka-ŋa ʰaŋaŋa ʃə-ŋcaaja
  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 S₁. 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 -mənti and -caaja. The
-ji of ʰuji is not significant. For some strange reason the -ji form
is always used before -mənti (the function of which is described in
5.3.6.).

In (4.22) the verb marked by -ŋcaaja is independent. In these cir-
cumstances no -ji is used.

In (4.24) P co-references S₁ so no anti-passive is required.

Although my examples indicate that the anti-passive is used when A
coreferences S₁ or P as opposed to A, I do not have examples to indi-
cate 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 foll-
owing sentences illustrate the singular, dual and plural with both in-
transitive and transitive verbs.

(4.25) ʰɑnca-ja ʰɲulurmi-ja ʰaŋa ʰuji
  intensive-imp hold-imp lest fall
  'Hold him tight or he might fall'.
  (the verb ʰɑnca- has no direct equivalent in English. It
corresponds roughly to the intensive adverb 'very' in
semantic range)

(4.26) ʰiŋka-ji-n! ʰiŋka-ja-u ʰa-ɕiŋa
  go-imp-you go-imp-hither me-allative
  'Come! Come here to me!'

(4.27) ʰiŋka-ji-ŋəu- mpi ʃəŋkana
  go-imp-away-you:2 alone
  'Go away on your own you two!'

(4.28) ʰuŋa-ji-ŋəu-tu ʰpaŋaŋtu:n!
  run-imp-away-you far:over
  'You mob run away over there!'

(4.29) ʰwanta ʰa-ja ʰkina
  don't hit-imp them
  'Don't hit them'.
(4.30)  nuwa kumpi-ka! jaa kumpaja!  
   look-imp you:two-∅ 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 gnutu-ju aia kutu  
   food here you-erg eat:imp you:plural  
'You mob eat up this food'.

(4.32)  citaanmi-ja kina gaur  
   look after-imp them kid  
'Look after them kids'.

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

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

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

(4.35)  majja 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(uential).

(4.36)  ninii ucan-tu maniji-na  ninii japaicara-ṭati-na-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 nin-ti waku ciaji-mpa-n?  
   query you-erg skin take:out-perf-you  
'Have you cleaned [sic] the skin?'

(4.38)  caa na-ṭu maniji ūuar-ka jarari maniji-mpa jaa  
   here I-erg get snake-∅ tail get-seq then  
'I got the snake, got the tail and then I whizzed  
wakini laji-mantiji-mpa mu-ju  
   spin hit-with-seq ground-loc  
   it around and cracked it on the ground'.

(4.39)  caa na-ṭu ununtuji macumpa-ka, unurićućuna īti-iti-mpa  
   here I-erg gut kangaroo-∅ guts throw-seq  
'I gutted the kangaroo and then I threw the guts away'.
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:

\[(4.41) \text{ŋa-} I\text{-erg} \quad \text{ŋapa macumpa ari-li-} \text{pin kajir-ku} \quad \text{I-erg saw roo eat a/p-part grass-dat} \]

'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:

\[(4.42) \text{jarikajan-} \text{ati-} \text{pin-tu caa ŋa-} I\text{-erg jaji} \quad \text{hungry-intr-part-erg here I-erg kill} \]

'Being hungry I killed it'.

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

\[(4.43) \text{kupaŋuru-} I\text{-tu ŋaima-pin} \quad \text{old man-erg chase-part} \]

'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:

\[(4.44) \text{tuatu pa-} I\text{-ji marapai icaji iŋka-} A\text{-iŋka-cin} \quad \text{snake:erg that-erg woman bite go-lig-go-part} \]

'The snake bit the woman as she was walking along'.

\[(4.45) \text{ŋa-} I\text{-jaji juru niːa-jii-} \text{pin ŋa-ci-wa-ku jalkapari-} I\text{-erg hit man steal-a/p-part me-dat-lig-dat boo-dat} \]

'I hit the man for stealing/ as he was stealing/ who stole my boomerang'.
(4.46) kuni-ja caa ɲarpa a-i ɲani-ji pinc-i-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) ɲkumaj-i ɲai-ka ɻumpaki-i pa-ɻi kupaɲuru-ɻu uɻi-akapi-
see I tobacco-det that-erg old:man-erg lose-part-
ɲin-ku
dat
'I'm looking for the tobacco the old man lost'.

-ɲin occurs with both transitive and intransitive verbs qualifying
the S₁ of the governing clause:

(4.48) ɲai unuani ɲun-ku ɲani-ji-ɲin
I rejoice you-dat see-a/p-part
'I'm happy to see you (happy at seeing you)'.

(4.49) kuntu caa ɻuɲa-ɲa ɲa-ɻu ɻa-ɲin-ka
not here cry-past I-erg hit-part-∅
'He didn't cry when I hit him'.

(4.50) ɻiŋka-ɻiŋka wampa ɻuɲa-ɲin
go-lig-go girl cry-part
'The girl is walking along crying'.

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

(4.51) unuani-ɲa ɲai-ka ɲin-ti ɻa-ɲin caa ɻuar-ka
rejoice-past I-∅ you-erg kill-part here snake-∅
'I was glad you killed the snake'.

-ɲin 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 atii-ɲin-ta, caa-ka uɻi-mi
not fall-part-loc here-∅ die-future
'If it doesn't rain, it will die'.

(4.53) maa-ci ɲai aɾi-li-ɲin-ta unuŋkaɻi-ka jaun ɻuna
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 seman-
tically 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)  naï makaţi-jan kari-ti-mia
        I hand-con wipe-re-pos
        'I've got a hand to wash myself (I don't want you touching me)'.

(4.55)  kuntu puju naï kapani-ţin-ka, naï jařikajan-ati-mia
        not if I hunt-part-Ø I hungry-intr-pos
        'If I don't go hunting, I might get hungry'.

(4.56)  maŋu-ɾati ěna makaţi watiŋa, kuntu /utility-jaŋ-mia weak-intr I hand both not hold-pos
        paŋcaji-mia
        very-pos
        'My hands have become weak; I can't hold it tight'.

(4.57)  qa-tu ŋini cajana la-mia, kuntu in̕ka-cin-ţa kanimańcir-ka
        I-erg you formerly hit-pos not go-part-loc policeman-Ø
        'I would've hit you if the policeman had not come'.

(4.58)  kuntu puju ŋini iti-ŋa caa-miaka-ju a-ŋi-na
        not if you return-past this-pl-erg comp-me-they
        la-mia
        hit-pos
        '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 Yalarnnga -ma, but what its exact status in Kalkatungu is I'm not sure.

patu- ma 'to instruct, to tell someone to do something'
juu or juu- ma 'to climb'(-Ø and -ma both occur)
arî or arî- ma 'to eat'
lii- ma 'to leave'(transitive), 'to relinquish'
(see note at end of §4.1.)

4.2.13. -mu

The following verb appears with a past tense -mu, which coincides in form and function with Yalarnnga -mu.
arîmu 'ate'
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) maŋapai ɪŋka-ŋa ŋkaɾa- a-i waŋukat-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. -mía (possibility) is the only suffix to appear in the favourite construction except for one isolated case with -ná (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) ɪŋka-ŋa a-ŋi ʃa
go-past comp-me hit
'He came to hit me'.

(4.61) kuntu ŋai ɪŋka-ŋa ṣun-ku ʃa ʃa-jî
not I go-past you-dat comp:I hit-a/p
'I didn't come to hit you'.

(4.62) ɪŋka-ŋa pini ɪnina- a-ŋi ʃa-jî?
go-past you they-dat comp-you hit-a/p
'Did you go to hit them?'

(4.63) wairâ ŋai ḿu a-ŋi-na ṣuwa
data heart me lie comp-me-they see
'I want them to see me'.
In the last example *kina* is a clitic form for third person plural in *P* function distinct from the free form *jina*. The sequence *jaa kina jaa* is usually pronounced *jakína jaa* in rapid tempo. The second *aa* in *jaa* (complementiser plus first person subject) and in *jaa* ('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*.

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) *ŋka-*na a-ina ŋwu

'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 *S₁* 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*

*ŋaŋi*  ƙuí  'see' (see examples (4.67),(4.71))

*api*  ƙuu  'give' (see examples (4.65),(4.66))

(but *ŋa* and *api* are used in constructions other than the favourite one)

*ŋu*  ƙuí  'catch'

(similarly all other verbs in -ma)
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 jaru cipa-a sødai-ku maniji a-i ñka
this man this-dat saddle-dat get comp-he go
pulilikija a-i ñukupuni-ji
bullock-dat comp-he muster-a/p
'This man got the saddle to go to must the cattle'.

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

(4.69) ñatu pini pati-ña ñantu-u a-ni wáktu-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) ñatu ñapa paa kanimajincir ñulurma-ji-ñin ñantu-u
I-erg saw there policeman grab-a/p-part arm-dat
a-i itinti a-i anjakami
comp-he bring:back comp-he look: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 ñantu 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 S₁ 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)  naï naïkʊna piipa iñiinti a-ni 妞wa
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 RECIPENT of the verb əni ("to give"), examples can be found with and without the anti-passive.

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

(4.72)  naï naïciwa-tu kunkuj-uu a-na kuu əaa ala 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) ənaanunaəni, is a compound of ənaanuna and əni.

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)  na-una iñka-qa a-i 妞wa
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)  na-una iñka-qa a-i əna-ji
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 S₁ 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-ji" 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 ŋai paŋtįįįji pini ŋka-cin, ŋai-ka jaa
       not I know you ail-part I-∅ part:I
       iti-mia
       return-poss
       'I didn't know you were sick or I would've come back'.

(4.76) ati piŋ-ti a-ni ciil puŋkuari-įigu?
       meat you-erg part-you take bag-abl
       'Are you going to take the meat out of the bag?'

(4.77) ŋa-įu 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 maŋpaai-įu 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) paŋi-ja a-i ɲa-ćiŋa
       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) ciŋa-ci kupaŋuru-įu 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 ɲunaɲunaŋi ('to teach')

(4.81) ɲa-ci kuja-ji ɲai ɲunaɲunaŋa juku-u Ɂaa ɬiṭiti-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) ɲa-ŋku ɲai pati-ɲa a-ŋi ɬiŋci-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).

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

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

(4.83) kuntu ɲai waira-ka nuu Ɂaa ɭŋka
not I heart-∅ lie comp:I go
'I don't want to go'.

(4.84) ɲai kuntu waira Ɂaa ɲin-ti-ka a-ŋi 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) ɲan-tu caa piʃa-piʃa ɭaji a-i ɬuŋa-ka
who-erg here child hit comp-he cry-∅
'Who hit the child so that he cried?'

(4.86) ɭuku caa pijnipiʃa ɭaji a-i ɭji
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 ɭŋka-ja-tu a-ɲur wani-ka
far go-imp-you comp-you play-∅
'Go a long way away and play'.

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

(4.88) ɲa-tu caa-mlakaja muɲunati kuntu a-ina ɬa-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 ụjụra (NP 'had better')

(4.89) nali ụjụra a-li ini kantu a-li ụmpị
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 iŋka-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 ụmpị '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) ụmpị nai ọjị ụgu-Ø
fear I fall lest-I
'I'm frightened I'll fall'.

(4.92) a ụmpị nai ọjị ụgun
'you'll fall'
b " " ọjị ụgun
'we two'll fall'
c " " ọjị ụgun
'you two'll fall'
d " " ọjị ụgu
'we'll fall'
e " " ọjị ụgu
'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 kuulu (=ku+ụnu) is used and AGENT pronouns are suffixed to this,

(4.93) ụmpị kuulu ụma kuulu-Ø
fear old man break lest-I
'The old man's frightened I'll break it'.

(4.94) a ụmpị kuulu ụma kuulu
'you'll break it'
b " " ụma kuulu
'we two'll break it'
c " " ụma kuulu
'you two'll break it'
d " " ụma kuulu
'we'll break it'
e " " ụma kuulu
'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 ụnu appears,
(4.95) rumpi ęai ica kuñi
fear I bite me
'I'm frightened it'll bite me'.

(4.96) a rumpi ęai ica kūkin 'it'll bite you'
b " " ica kuła '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 ęini ica kūñajin?
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 mpaجا ica kūñajipaja
fear you 2 bite 1>2 Du
'Are you two afraid I'll bite you?'

(4.99) rumpi ęitu ica kūñajinitu
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 ęai laa kuñi-ju
fear I hit me-they:2
'I'm afraid they'll hit me'.

(4.101) rumpi ęai laa kuñi-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 ęai ana ęuşi
fear I lest fall
'I'm afraid he'll fall'.
b rumpi ęai ana kuju ęuşi '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 ęai ana ica
fear I lest bite
'I'm afraid it'll bite (him, her, it)'.
b rumpi ęai 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) pílapija rumpi-muju cipa-watikaja-juŋu ana kuju child fear-dual this-dual-caus lest they:2(A)
puju-la they:2(P)-hit
'The two children are frightened that these two men will hit them'.

(Note in passing that the monosyllabic verb la- is criticised to the preceding pronoun.)

The interesting thing about these constructions is that kuju and kina represent S₁ and A. However, if used in conjunction with kuŋu or kuŋun, they represent P (compare remarks in §3.3 and see discussion in chapter 7).

(4.105) rumpi kupaŋuru kuŋu-d kina laa fear old man lest-I them hit
'The old man's afraid I'll hit them'.

(4.106) rumpi kupaŋuru kuŋu-n kuju laa 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 naŋi mpaja-ji ja-mi ku-la 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 S₁ or P function, the anti-passive construction must be used. Compare the following,

(4.108) tiŋatu paa-miakaja rumpi ana kina tua-ji foot that-plural fear lest they cut-a/p kampuŋu-tu (S₁ = A) sharp:stone-erg
'Those ones are frightened they might cut their feet on a sharp stone'.

(4.109) rumpi lapija rumpi kajaja kuŋu ana kuju child fear-dual this-dual-caus lest they:2(A)
kuŋu-laa they:2(P)-hit
'The two children are frightened that these two men will hit them'.

(Note in passing that the monosyllabic verb la- is criticised to the preceding pronoun.)
(4.109) รุมปี้ จูรุ ซิป-จิ จูรุ-ญารา-จุ อานา ญก้า

fear man this-erg man-other-erg lest spear

จุกุ-ญกุ (∅ = A)

spear-erg

'The man is frightened this other man might spear him'.

(4.110) คู ๆ  มา แก่ อาแน ญว่า (∅ = A)

hide here-∅ lest see

'He's hiding in case he's seen/somebody sees him'.

(4.111) อาแน รุมปี้ อานา จูมา-จิ อานา กินา จ้า

here child fear lest break-a/p lest they hit

จูมา-จิ-นิน (S₁ = 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) รุมปี้ นินิ คูกุ-น์ จูมา-จิ? (S₁ = A)

fear you lest-you break-a/p

'Are you frightened you'll break it?'

(4.113) จา-จา อานา จูอาร อานา ยา-จิ (P = A)

kill-imp here snake lest bite

'Kill the snake in case it bites him'.

(4.114) วากาจ่า-จูญุ อานา รุมปี้ อานา ยา (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) รุมปี้ งาจิ จุกุ-ยุ ยา กู-งิ

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) รุมปี้ งาจิ จุกุ-ญุญุ ยา กูงิ

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 จุกุญุญุ 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.
<table>
<thead>
<tr>
<th></th>
<th>SINGULAR</th>
<th></th>
<th>DUAL</th>
<th></th>
<th>PLURAL</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>SINGULAR</td>
<td>-</td>
<td>kunajin</td>
<td>kunu</td>
<td>kunajinpaja</td>
<td>kunu kuju</td>
<td>kunajinitu</td>
</tr>
<tr>
<td>2</td>
<td>kuni</td>
<td>kungu</td>
<td></td>
<td>kungu kuju</td>
<td></td>
<td>kunu kina</td>
</tr>
<tr>
<td>3</td>
<td>kuni</td>
<td>kukin</td>
<td>ana</td>
<td>kula</td>
<td>kumpaja</td>
<td>kuta</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DUAL</td>
<td></td>
<td></td>
<td>kunu</td>
<td>kunal</td>
<td></td>
<td>kunu kina</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>kunaru</td>
<td></td>
<td>kunaru</td>
<td></td>
<td>kunu kina</td>
</tr>
<tr>
<td>3</td>
<td>kuniju</td>
<td>ana</td>
<td>kuju</td>
<td></td>
<td></td>
<td>kunu kina</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PLURAL</td>
<td></td>
<td></td>
<td>kunur</td>
<td>kunar</td>
<td></td>
<td>kunu kina</td>
</tr>
<tr>
<td>2</td>
<td>kunapur</td>
<td>kunpur</td>
<td></td>
<td>kunapur</td>
<td>kunpur</td>
<td>kunu kina</td>
</tr>
<tr>
<td>3</td>
<td>kunina</td>
<td>ana</td>
<td>kina</td>
<td></td>
<td></td>
<td>kunu kina</td>
</tr>
</tbody>
</table>
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) ṭima Ṱuku-ŋ uku-ṭi
use up least-you grog-locative
'You might spend it all on grog'.

(4.118) ići ku-ṛi cipa-ji , uli ñu
bite me this-erg die lest:
'I might bite me. I might die'.

(4.119) ṭutu-ju wanta wani-nti-ja , ṭuma Ṱuku-r
you-erg don't play-with-imp break least-you
'Don't you mob play with it. You might break it
jani ana inga a-į nti-ji
w:man lest go comp-he scold-a/p
and the white man might come and rouse (on you)'.

(4.120) ṭika unu-n
ail least-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) kajaa ṭu-ti unu-n
neck break least-you
'You might drown' (following sentences that mean,
'Don't swim there. The current is too fast'. kajaa ṭu-ti
is literally 'to break one's neck' but it is the regular
idiom for 'to drown').
(4.122) macumpa-\textit{tu}_\text{u} caa \textit{rumpi} ana \textit{laa} \textit{tapantu-\textit{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) m\textit{nantapi} caa-\textit{ka} ana \textit{\nuwa} crouch here-\textit{\nu} lest see

'He crouched over so he wouldn't be seen'.

(cf. (4.73) Note that the use of \textit{\nuwa} as opposed to \textit{\nantapi} indicates the A of the lest clause cannot be co-referential with \textit{S}_1 in the main clause.)

(4.124) \textit{rumpi} caa \textit{pila-pila cipa-ja mucun-\textit{tu}_\text{u} ana ica fear here child this-caus hawk-caus lest bite piku-\textit{\nu}ku ana p\textit{inci} mi\textit{\djiang} claw-erg lest scratch eyes

'The child is frightened the chicken hawk'll bite him and claw his eyes (out?)'.

(4.125) \textit{\ju}ku-\textit{j}u ica ku-\textit{qi} 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 \textit{\lamu} is used where one is merely speculating about what might happen.)

(4.126) \textit{iti-\textit{j}i puju \nantama ku-\textit{kin}, iti-ja ma\textit{lampira} man-erg if find lest-you return-imp quickly

'If someone comes across you, come back quickly'.

(4.127) ma\textit{lampira} \textit{\nai-ka a\textit{n}paji}, juru ana kina iti-\textit{na} quickly I-\textit{\nu} collect man lest they return-they

'I am hurrying gathering (the yams) in case the men come back'.

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

(4.128) \textit{\ju\text{\u}umpiri} caa-\textit{ka arkun-\textit{aan}, \ja-ji-\textit{\ncir}, \textit{\pi}n-ti \textit{\ja}\textit{-ja} bad here fight-con hit-a/p-nom you-erg hit-imp wacaji-\textit{\nu} first-adv

'The bad one is belligerent. He's a "hitter". You hit him first before he hits you'.

(4.129) \textit{rumpi} caa juru-\textit{ka cipa-ji juru-\textit{\nara-\textit{tu}} ana \textit{\n\k\textit{aa} fear here man-\textit{\nu} this-erg man-other-erg lest spear juku-\textit{\nu}ku spear-erg

'The man is afraid the other man will spear him'.

(The use of -\textit{\nu} as well as kina in this construction is not otherwise attested.)
(4.130) ṭuna-ji kaṭa-kaṭa-ti a-n-aṛa ṣaṇ-ku-ki ṭina-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-aṛa = a-ni aṛa, ṣaṇ < ṣaṇi)

(4.131) ḥi-ja cuṭu ṭuma kuṇu-n
leave-imp coo break lest-you
'Leave the coolaman alone. You might break it'.
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 ꦗai ꦗika-mi macumpa-a spear-con I go-fut roo-dative 'I will go for the kangaroo with a spear'.

(5.2) ꦗai l̄aa putur-aan cu̱tu-jan ꦗow good-con car-con 'I have a good car'.
(5.3) ŋai-ka ϧunkur-aan
I-Ø cold-con
'I've got a cold'.

(5.4) ɡawa-jan ɡai punpati jaŋaalu-u
heavy-con I speak language-dat
'I'm talking heavy'. (i.e. not in a simplified way)

Note also Ɂuar ('snake'), Ɂuaraan ('doctor'); putu ('stomach'),
putujan ('pregnant'); wamija ('temple', 'sleep'); wamijaajan ('asleep');
arkun ('fight', 'battle'), arkunaan ('belligerent').

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

(5.5) ɡai-jan, ɡai miɁiɁiɁiɁi-ɡa...
me-con me be born-part
'(She) had me; I was born...'

5.2.2. -iti PRIVATE

(5.6) maɁi-iti ɡai kuntu punpati, walmalaj ɡa-Ɂu
tongue-less I not speak lose I erg
'I have no tongue; I (can) not speak. I lost it'.

(5.7) paɁca-ja ala maa, jalaɁura-ɁiɁi maa-ɁiɁi
ding 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. -ɳu (with dative stems)

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

kuɁa 'father' ɡuɁa-a-Ɂa-ɳu 'male'
pincaɁu 'sun' pincaɁu-u-Ɂa-ɳu 'clock', 'watch'
ɁuɁu-Ɂu 'writing' ɁuɁu-Ɂu-u-Ɂa-ɳu 'pen', 'pencil'

In these examples, -ja is a ligative between the dative and -ɳu
(see §3.5.11., §5.8.). In ɁuɁu-Ɂu-u-Ɂa-ɳu 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 cuɁu ɡuɁu-Ɂa-ɳu-ka
where it coolaman water-dat-lig-adj-Ø
'Where's the water coolaman?'

There are a few examples where ɡarpá is suffixed by the dative plus
-ɳu plus -Ɂi (presumably the locative) to express 'because of an
interest in'.
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 ā 'now', 'today' i ā-ŋu 'new'
- īlīnta 'in the middle' īlīnta-ŋu 'middle'
- āja- 'old' caja-ŋu 'old'

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

5.2.5. -ŋujan

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

- āwati 'two' āwati-ŋujan 'twice'
- kūpāi 'three' kūpāi-ŋujan 'three times'
- mājā 'many' mājā-ŋujan 'many times'

5.2.6. -ncir NOMINALISER

-ncir 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.

- kanima 'to tie' kanimajncir 'policeman'
- ica 'to bite' icajncir 'a "biter"

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

5.2.7. -ncir suffixes

(5.9) pi-ni ti āra-ja-ŋu-li āni įlī-마
you-erg other-dat-ling-adj-loc me leave-pres
'You are leaving me because of another one'.

(5.10) uți āna-ci-ka wacalī-ŋa-ŋu-ka mārapai
die me-dat-∅ first-adv-adj-∅ woman
'My first wife died'.

wacalī does not occur in isolation as a nominal.

(5.11) āna-ŋu pi-ni paṭi-ŋa āwati-ŋujan a-ni ini-ka
I-erg you tell-past two-times comp-you remain-∅
'I told you twice to stop (there)'.

(5.12) tūŋumpiri caa-ka arkunaan ą-ji-ncir
bad here-∅ savage kill-a/p-nom
'He's bad, a savage killer'.
(5.13) kuu-ja pujur-puni-ni-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. ja-pin 'one who is hit' and ja-jin '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 ƞara 'another' is used like a stem-forming suffix:

pi!api!a-ƞara-ti 'with the other child', pi!api!a-ƞara-tı... pi!api!a-ƞara-tı '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'
ŋaa 'that'  ŋaa-wati-kaja 'these two'
paa 'that'  paa-wati-kaja 'those two'

The root wati also occurs in watiŋa '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 mucuwaŋcir. 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'
ŋaa ŋaa-mia-kaja 'these'
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. kušamia 'fathers' refers to one's own father and father's brothers. However, like watî 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, pupî. See also under kinship, §5.2.7.3.

5.2.7.3. Kinship Terminology and Related Morphology

<table>
<thead>
<tr>
<th>'older sister'</th>
<th>pua</th>
<th>'father's mother'</th>
<th>papi(pi)</th>
</tr>
</thead>
<tbody>
<tr>
<td>'older brother'</td>
<td>ȳapu</td>
<td>'father's father'</td>
<td>ȵaca(ci)</td>
</tr>
<tr>
<td>'younger sibling'</td>
<td>ūnkulu</td>
<td>'man's children'</td>
<td>künkuku</td>
</tr>
<tr>
<td>'mother'</td>
<td>maţu</td>
<td>'woman's children'</td>
<td>ȵalu</td>
</tr>
<tr>
<td>'mother's sister'</td>
<td>maţu, upaci</td>
<td>'mother-in-law'</td>
<td>wapuțu</td>
</tr>
<tr>
<td>'mother's brother'</td>
<td>pupi</td>
<td>'cross-cousin'</td>
<td>muaŋnu</td>
</tr>
<tr>
<td>'father'</td>
<td>kuša</td>
<td>'wife'</td>
<td>kuŋi</td>
</tr>
<tr>
<td>'father's brother'</td>
<td>kuša, piţaţa</td>
<td>'husband'</td>
<td>jukuta</td>
</tr>
<tr>
<td>'father's sister'</td>
<td>ȵucir</td>
<td>'spouse'</td>
<td>markutu</td>
</tr>
<tr>
<td>'mother's mother'</td>
<td>mucu(cu)</td>
<td>'great grandparent'</td>
<td>macara</td>
</tr>
<tr>
<td>'mother's father'</td>
<td>cacic(ci)</td>
<td>or 'great grandchild'</td>
<td></td>
</tr>
</tbody>
</table>

Notes

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

One calls one's mother's sister mațu i.e. 'mother', and one calls one's father's brother, kuša i.e. 'father'. However, upaci and piţaţa 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 piţaţa, e.g. ţunțija piţaţaŋaća '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 uţarû and malaṟa. I recorded uţarû and
parkaţa, 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.

<table>
<thead>
<tr>
<th>uţaru</th>
<th>maţara (parkaţa?)</th>
</tr>
</thead>
<tbody>
<tr>
<td>paţiţu</td>
<td>marinaţu</td>
</tr>
<tr>
<td>kaţkilaţu*</td>
<td>îunpuyuţu</td>
</tr>
</tbody>
</table>

(*Roth gives this form. I have recorded kaţilaţu)

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 paţiţu man married a marinaţu woman, their children were îunpuyuţu. If a îunpuyuţu boy married a kaţilaţu girl, the children would be paţiţu, but if a îunpuyuţu girl married a kaţilaţu boy, their children would be marinaţu.

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 ņacaci 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'

- **ņacaci**  
  'father's father'  
  'a man's son's child'

The split into alternate generations is also reflected in the use of the suffix -waņcir 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 -waŋcir appear in the following forms,

- muçuwaŋcir
- cacuwaŋcir
- papuwaŋcir
- ŋacuwaŋcir

muçuwaŋcir 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 -watı is used for two persons holding the same relationship. Thus puwaṭı is 'two older sisters' and puwiwaṭı means 'two of mother's brothers' and maṭuwaṭı means 'two mothers'. The kinship system is classificatory and the term maṭu 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 ŋucirmia 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 julpājā 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 kunikula 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. kunikula 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 julpājā is julpajajelpajā 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 -aŋci (see §2.8. for the morphophonemics) is used with kinship terms to indicate that the referent is possessed by a third person.

- pupičci 'his or her mother's brother'
- kujaŋci 'his or her father'
- maṭuŋci 'his or her mother'

Inflection

Kinship nouns ending in vowels decline like non-singular pronouns. Kinship terms ending in consonants like consonant-stem nouns.
'man's child' takes an ergative in -tı. kuniŋkala and julpaṭa decline regularly.

Examples in Sentences

(5.14) caa ɨ̯ina ɨ̯ka julpajapaṭa kunkaju-ǔnci-jana
       here they go child -his -too
       'There they go, that man and his kids too'.

(5.15) qata-ji ɨ̯tu ɪ̯aju-ñä kunikuniŋkala-šu
       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) qalq-ji caa kunikala(j)ana ɪ̯aju caa ɨ̯tu
       we-erg here -and hit here dog
       'We two, my mother and I, hit the dog'.

(5.17) ə-a-ći papi-wati wani-muju
       me-dat son's:kids-dual play-dual
       'My (woman speaking) son's kids are playing'.

(5.18) qalq-ųnci maṭu-ǔnci-ŋu ɪni
dau -her mother-her-loc be
       'The daughter is with her mother'.

5.3. VERBAL MORPHOLOGY

5.3.1. -punı TRANSITIVISER

-punı 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 punı as "tr" for transitiviser.

pılıṭı 'soft'    pılıṭıpunı 'to mash, to squash, to smear, to cut into small pieces'

jarka 'far'    jarkapuni 'to put at a distance'

kaki-Jan 'wounded, sore'    kakiJanpunı 'to wound, to make sore'
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):

\begin{align*}
\text{rumpi} & \quad \text{'to fear'} & \text{rumpima} & \quad \text{'to frighten'} \\
\text{kani} & \quad \text{'knot'} & \text{kanima} & \quad \text{'to tie'} \\
\text{ŋàjama} & \quad \text{'to follow, to chase'} & \text{ŋàjama} & \quad \text{'to look for, to find'} \\
\text{ŋàlurma} & \quad \text{'to catch hold of'} & \\
\text{ŋàjama} & \quad \text{'to put a hole in'} & \\
\text{ŋàjama} & \quad \text{'to break' (intrans)} & \\
\text{ŋàjama} & \quad \text{'to become numerous'} & \text{ŋàjama} & \quad \text{'to "whatohama call it!"'} \\
\text{ŋàjama} & \quad \text{'to be at a distance'} & \\
\text{ŋàjama} & \quad \text{'to grow up'} & \\
\text{ŋàjama} & \quad \text{'become hot'} & \\
\text{ŋàjama} & \quad \text{'become big, grow big'} & \\
\end{align*}

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. -tàti INTRANSITIVISER

(-àti with consonant stems)

-tàti 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.

\begin{align*}
\text{malàta} & \quad \text{'many, mob'} & \text{malàtàti} & \quad \text{'to become numerous'} \\
\text{mimìjan} & \quad \text{'having breasts'} & \text{mimìjanàti} & \quad \text{'to develop breasts'} \\
\text{kupànuru} & \quad \text{'old man'} & \text{kupànuruàti} & \quad \text{'to become an old man'} \\
\text{jarkà} & \quad \text{'far'} & \text{jarkàtàti} & \quad \text{'to be at a distance'} \\
\text{pirìna} & \quad \text{'up, above'} & \text{pirìnàti} & \quad \text{'to grow up'} \\
\text{pujùr} & \quad \text{'hot'} & \text{pujùràtì} & \quad \text{'become hot'} \\
\text{jàlì} & \quad \text{'hard'} & \text{jàlìtì} & \quad \text{'become hard'} \\
\text{jaun} & \quad \text{'big'} & \text{jaunàtì} & \quad \text{'become big, grow big'} & \\
\end{align*}

Note also mìlìtìtàti (lit. 'become eyes') meaning 'to be born', mālì pìlì-tàti (lit. 'tongue become soft') meaning 'to be dumb'.

(5.21) ŋà-tù kanìr pìlì-punìjì a-ì pìlì tàti
\begin{align*}
\text{I-erg grass soft-tr comp-it soft-intr} \\
\text{'I crushed the grass (seeds) and it became soft'.}
\end{align*}
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.

\[
\begin{align*}
\text{uac'i} & \quad \text{'blood'} & \text{uacinta} & \quad \text{'to bleed'} \\
\text{an'ja} & \quad \text{'mouth'} & \text{an'janta} & \quad \text{'to open the mouth'} \\
\text{unu} & \quad \text{'faeces'} & \text{ununta} & \quad \text{'to defecate'} \\
\text{kila} & \quad \text{'crack, split'} & \text{kilanta} & \quad \text{'to crack, to split'}
\end{align*}
\]

\(\text{(5.22)}\) \ hata kita-nte-njii (re-nti see §5.3.6.)

\begin{align*}
\text{mud} & \quad \text{crack-intr-} \\
\text{'The mud cracked'.}
\end{align*}

\(\text{(5.23)}\) \ pila-pil'a marapa-i-tu laji-na a-i uaci-nta

\begin{align*}
\text{child} & \quad \text{woman-erg hit-past comp-he blood-intr} \\
\text{'The woman hit the child and he bled'.}
\end{align*}

\(\text{(5.24)}\) \ uaci-nta caa uaci caa kaanta

\begin{align*}
\text{blood} & \quad \text{here flow} \\
\text{''Uacinta'' means blood flow'.}
\end{align*}

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 mun’tupir 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. okuma 'to look for') the verb must first be transitivised (see §5.3.7.) before ti can be added.

\(\text{(5.25)}\) \ maka’ti na’i tua-ti-na

\begin{align*}
\text{hand} & \quad \text{I cut-re-past} \\
\text{I cut my hand'.}
\end{align*}

\(\text{(5.26)}\) \ pa-atikaja macumpa-ka la-ti tapajtu-tu

\begin{align*}
\text{that-dual kangaroo-ô hit-re foot-erg} \\
\text{'Those two kangaroos are kicking one another'.}
\end{align*}

\(\text{(5.27)}\) \ api-ti-muju ca-atikaja
give-re-they:2 this-dual

\begin{align*}
\text{'These two gave one another things'.}
\end{align*}

\(\text{(5.28)}\) \ pinci-ti-muju mun’tupir

\begin{align*}
\text{scratch-re-they:2 one another} \\
\text{'They're scratching one another'.}
\end{align*}
The intransitive verb for 'break' is *tu-ti* and the transitive 'break' is *juma* (where *ma* is a non-productive causative or transitive-visor).

(5.29) *tu-ti-qa* *qa-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 *-ncama* (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. *lajimanti* 'hit', *tujimanti* '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:

<table>
<thead>
<tr>
<th>Intransitive</th>
<th>Transitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>aɾa 'enter'</td>
<td>aɾanti 'insert'</td>
</tr>
<tr>
<td>ɣuji 'fall'</td>
<td>ɣujinti 'to knock down, to push over'</td>
</tr>
<tr>
<td>pia 'go down'</td>
<td>pianti 'to take something down (from a high place)'</td>
</tr>
<tr>
<td>wajara 'come out of, emerge'</td>
<td>wajaranti 'to wake someone up'</td>
</tr>
<tr>
<td>juu 'climb on'</td>
<td>juunti 'to climb, to mount (a horse)'</td>
</tr>
<tr>
<td>wani 'to play'</td>
<td>wandinti 'to play with something, to play (a part in a) corroboree'</td>
</tr>
</tbody>
</table>

(5.30) *pila-pila caa ɭuŋa-qa. wajara-ntiji ɣai wamila-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-\(\text{-}tu\) \(\text{tuaa}\) \(\text{jaani-mant}\) 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) \(\text{njiia}\) \(\text{na-\text{-}tu}\) 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-\(\text{-}\text{ji}\) ati-\(\text{nci}\) laa pinci-nti-\(\text{ji}\)
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-\(\text{\text{-}qi}\)-awa laa mani-nti-\(\text{ji}\)
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-\(\text{\text{-}qi}\)-awa becomes \(\text{a}\)-\(\text{\text{-}ni}\)-awa at normal tempo).

-nti is also common in descriptions of tools.

(5.34) kampugu caa \(\text{\text{-}nai}\) pu tua-nti-\(\text{ji}\)-\(\text{caji}\)
kampugu 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 nuw kulapuru-ti
\(\text{dog\ lie\ blanket-loc}\)
'The dog lay on the blanket'.

(5.35b) tuku nu-ntiji kulapuru
\(\text{dog-erg\ lie-on\ blanket}\)
'The dog lay on the blanket'.

(5.36a) marapai \(\text{\text{-}nji}\) \(\text{jaani-pia}\) a-i nuu
woman go \(\text{woman-loc\ comp\-she\ lie}\)
'The woman is going to sleep with the white man'.
(5.36b) iŋa-iŋac iŋka-ja kutu cipa-aŋa japi-aŋa 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 kajiri qa-ŋu itintiji a-i nu-nti ḫuku-ju here grass I-erg bring comp-he lie-on dog-erg 'I brought the grass for the dog to lie on'.

(5.38) qa-ŋu caa napa ntia yuu na-nti I-erg here saw stone rel stand-on 'I saw the stone he stood on'.

CAUSAL

(5.39) laji-manti caa marapai 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-mantti 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) ntia-ku tuar ntati-ntiji stone-erg snake crush- 'The stone crushed the snake'.

(5.42) kuntu palku tuma-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. -ncama TRANSITIVISER

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

-ncama can be analysed (as -ųca as in -ncaaŋa, -ncanųi and -ncau) plus ma. The identification of this ma with the ma that occurs as a causative in ḫumpima '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 -ncama as an unanalysable element, glossing it as '-tr' for transitiviser.

In the first examples to be considered, -ncama 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) gaa-ka țuku nanti-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 (luesta narpaa 'cry for someone').

(5.44) luesta-njiiti-cama-ti maliina
cry-plur-tr-re in great numbers
'They are all crying for one another'.

Similarly in the next example.

(5.45) kunu paļku țuni-ncanu, api-ncama-ti-caņu
not slow run-habit, sing-tr-re-habit
'He runs fast (because) he sings himself'.

In the following examples -ncama 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 -ncama.

(5.46a) cipa-ji șauțu șitații șa-ci maa șunu
this-erg kid:erg steal me-dat food hence
'This kid stole my tucker from here'.

(5.46b) cipa-ji șai șauțu șita-ncamajii maa șunu
this-erg me child-erg steal-tr food hence
'This kid stole my tucker from here'.


(5.47a) nga-ci ngaju-ju kunti kari nga-ci me-dat dau-erg house clean me-dat
'My daughter cleaned the house for me'.

(5.47b) nga-ci ngaju-ju na kari-ncamaji kunti me-dat dau-erg me clean-tr house
'My daughter cleaned the house for me'.

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

(5.48) nga-ju pati-na nga-ci japa ucan-ku a-ji iinci-cami i-erg tell-past me-dat bro wood-dat comp-me chop-tr
'I told my older brother to chop me some wood'.
(- (n)cami is the normal non-anti-passive of -(n)cama)

The following example of -ncama is fairly typical, in fact -ncama is particularly common with niça 'to steal'. The function of -ncama 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. -ncama 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'. -ncama is a morpho-syntactic device not confined to 'theft sentences'.

(5.49) caa-ka juru arkunaan-ati nga-ju niça-ncama-cin this-¢ man angry-intr i-erg steal-tr-participle
'This man got wild because I robbed him'.

The final example illustrates the use of -ncama with the three-place verb anji '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) marapai-ju juku anji-ncamaji ati woman-erg dog give-tr meat
'The woman gave him meat for the dog'.

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5.3.8. -ŋiti VERB PLURALISER

-ŋiti 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) luna-ŋiti-caŋu māltāna
cry-plur-habit mob-adv
'They all cry together'.

(5.52) īti caa łąuna, māltā įŋka-ŋiti-maŋtī, āti-ŋci ńkumaji
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. -ńcaani CONTINUING

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

(5.53) įątu ńapa macumpa uli-ńcaani-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 īnf , paă ńuli įŋka-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. -ńtu Motion away from the speaker

This has been observed in the imperative only.

(5.55) łąuna-ji-ńtu-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) įŋka-ja-u ńa-ciŋa
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 -gi ('to'), -ći ('at') and -ńu ('from'),
A number of adverbs can be observed to carry inflections e.g. waṭaṅka 'at night' (cf. waṭamakal 'dark', waṭaṅgaṅa 'tomorrow'), but I doubt if this is of any synchronic significance. They cannot be considered defective nouns as they cannot be qualified. arkuntu 'savage, 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. -ŋa ADVERB FORMING

-ŋa is used to form adverbs.

ajar 'one'   ajargā 'only, singly'

- watiṅa 'both'

- cajaṅa 'once, before, formerly'

malṭa 'mob'   malṭiṅa 'in great numbers'

iṅaṅu 'new'   iṅaṅuṅa 'soon'

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

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

5.4.3. -minŋu

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

wampa 'girl'   wampa-minŋu 'as a girl, when she was a girl'

kalpin 'young man'   kalpin-minŋu 'as a young man, when he was a young man'

(5.57) kalpin-minŋu ŋa-tu ŋuwar laji-ṅcaṅu malṭa young man-as I-erg snake kill-habit mob

'As a young man, I used to kill a lot of snakes'.
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 ʌ between vowels in the last two examples.

<table>
<thead>
<tr>
<th>Stem</th>
<th>Translation</th>
<th>Reduplicated</th>
<th>Additional Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɪuna</td>
<td>'run'</td>
<td>ɪuna-ɪuna</td>
<td>'to run around'</td>
</tr>
<tr>
<td>jakapi</td>
<td>'to listen'</td>
<td>jakapi-jakapi</td>
<td>'to listen intently'</td>
</tr>
<tr>
<td>pujur</td>
<td>'hot'</td>
<td>pujur-pujur</td>
<td>(or pujur-pujur) 'very hot'</td>
</tr>
<tr>
<td>Auati</td>
<td>'two'</td>
<td>Auati-Auati</td>
<td>'four'</td>
</tr>
<tr>
<td>kujiri</td>
<td>'boy'</td>
<td>kujiri-kujiri</td>
<td>'boys'</td>
</tr>
<tr>
<td>wampa-Ɂana</td>
<td>'incorrectly'</td>
<td>wampa-wampa-Ɂana</td>
<td>'quite incorrectly'</td>
</tr>
<tr>
<td>ɲani</td>
<td>'see'</td>
<td>ɲani-Ɂani</td>
<td>'stare'</td>
</tr>
<tr>
<td>iŋka</td>
<td>'go'</td>
<td>iŋka-Ɂ-iŋka</td>
<td>'go repeatedly, go back and forth, walk around'</td>
</tr>
<tr>
<td>ɪnci</td>
<td>'chop'</td>
<td>ɪnci-Ɂ-ɪnci</td>
<td>'chop repeatedly'</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Stem</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ɂilii-Ɂali</td>
<td>'soft' + 'tongue', 'soft'(of speech), 'dumb'</td>
</tr>
<tr>
<td>Ɂunial-putu</td>
<td>'moon' + 'stomach', 'crescent moon'</td>
</tr>
<tr>
<td>kuɁu-wəɁara</td>
<td>'brains' + 'come out', 'to be angry'</td>
</tr>
</tbody>
</table>
milti-puṭur-ati 'eyes' + 'good' + 'to open one's eyes' intransitiviser
milti-wakini 'eyes' + 'spin' 'to be intoxicated'
(also heard as miltawakini)

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

(5.60) ṇata ārī-li- nin maa-ci-ka ati-nci-jana-ka we eat-a/p-part food-dat-∅ meat-dat-conj-∅
'We are eating food and meat'.

(5.61) miltanā caa ārī-lī cīpā- a ṇarkun-ku, antamuru-tati in mobs here eat-a/p this-dat wall-dat flock-intr
wakala-jana kacapi-jana crow-conj hawk-conj
'In great numbers they eat the wallaroo, they flock
together, both crows and hawks'.

(5.62) ṇini ārī-li-mi ati-nci?
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. naį-jana niįli maa-ci ārī-li ati-nci-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 -ŋu.
-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 signi-
ficance. 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, criticised to a variety of words.

5.10. FREE FORM FUNCTION MORPHEMES

5.10.1. luu INTENSIVE PARTICLE

(5.63) caa-ka luu ŋaŋtamaji caa curujan-ka kuntu ŋarpa-\( \emptyset \)-ka
here-\( \emptyset \) int find here echidna-\( \emptyset \) not other-erg-\( \emptyset \)
caa luu cipa-ji
here int this-erg
'He found the echidna, no one else did. He found it himself'.

(5.64) liji-ka luu-ka ŋai laji-ŋi
\( \emptyset \)s:erg-\( \emptyset \) int-\( \emptyset \) me hit-me
'He hit me'.
(also occurs as liji ŋai luuka lajiŋi)

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-\( \emptyset \) caa pa-ji ulkuuri-\( \emptyset \) laji iuar-ka
woman-erg here that-erg tall-erg kill snake
'The tall woman killed the snake'.

(5.66) ŋai ŋkumaji pa-u jur-ku ŋuu gita-ji-\( \emptyset \)
I seek that-dat man-dat rel steal-a/p-past
ŋa-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 milti mucupari ini-\( \emptyset \)
kangaroo eyes blind be-past
'The kangaroo was blind'.

\( \emptyset \)
(5.68) ŋai 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 puṭura ini-ka ŋai kia ini-maŋti
query you good be-Ø me like be-imperf
puṭura-ka? puṭura ini-ja ŋai kia
good-Ø good be-imp me like
'Are you being good? Being good like me? Be good like me'.

5.10.4. pənca INTENSIVE VERB

pənca 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) manu-ʒati ŋai makaŋti wațiŋa, kuntu ŋulurmaji-mia
weak-intr I hand both not hold-poss
pəncaji-mia
intens-poss
'My hands are weak, I can't hold it (sc. microphone) tight'.

5.10.5. ɲunca, ɲuncapuni 'to miss', 'to fail'

ɲunca 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. ɲuncapuni is the transitive equivalent.

(5.71) ŋai caŋkaŋti ɲunca-ŋa ɲuji-ŋa
I here fail-past fail-past
'I nearly fell'(or 'I escaped (from) falling')

(5.72) ɲa-ʈu caa ɲuncapuniji 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 ɲiŋka-ŋa ɲampu utaŋara-ti
spear go-past right other:side-loc
'The spear went right through to the other side'.

(5.74) kuntu ŋai kuļu-kuļu iti-mi ɲaŋga ɲampu ŋai kaanta
not I again return-fut hither for:good I go
'I'll never come here again. I'm going for good'.

(5.75) ŋampu caa ŋa-tu ati-ka pinciji piltipuniji all here I-erg meat-Ø cut break/smash 'I cut the meat all up into pieces'.

(5.76) kaṭir-ka laa ŋampu maniji-ŋa grass-Ø now all burn-past 'The grass all got burned'.
(also given as ŋampu caa laa kaṭirka manijiŋa)

Note also ŋampu-tati ("to disappear"), ŋampu kaṭa-kaṭa ("back of head").

(5.77) kuntu caa-ka ŋampu-wa nuu caa ŋurku ŋu-pcaani miļi 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 ɲujintiji mu-ju-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) ɲai-ka uca ɲɪka-ŋa ɲun-ku laa ɲapi-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) atii-mi lamu fall-fut might 'It might rain'.

(5.81) tuŋumpiri ɲaa-ka maa-ka waṭac'i-ka, pin-ti lamu ari-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) iA-a-ŋu-ŋa caa-ka ciriku-tings laji, japacara-Ńati-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'.
(iA-ŋu-ŋa means 'recently')

(5.83) tuku lamu caa-ka waṭara-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 ŋa-Ńu ɲana caja-ŋa-ka not I-erg saw former-adv-Ø 'I've never seen him before'.

(5.10)
(5.85) cipa-ji kupaŋuru-țu caa pațu-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) tupu-ŋku kari-ja-ŋi miar 
soap-erg wipe-imp-me emph 
'Wash me well with soap'.

(5.88) ŋai kuntu aɾi-li-ŋcaŋu, ati-ka ʃai̥ miar-ka 
I not eat-a/p-habit meat-ŋ hard emph-ŋ 
'I don't eat (sc. galah), the meat's too tough'.

(5.89) jaun miar ʃaŋka-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 ʃaŋa ʃaur-ka 
me like here child-ŋ 
'The child looks like me'.

(5.91) caa-ka mʊŋtu-ka kula-aŋci kia 
here-ŋ face-ŋ father-his like 
'He looks like his father'.

(5.92) pini-ka uca punp-a-punpati kia-ka arkun-ku 
you-ŋ just talk that-way-ŋ fight-dative 
'You're just talking like that to cause a fight'.

(5.93) kia ŋai ʃaŋka (accompanied by pointing) 
that way I go 
'I'm going that way'.

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5.10.13. kianu 'this way'

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

(5.94) ɲata-ji kantu uənti ji kianu-ka ucan kia kar
we-erg not possess such-ŋ fire make
'We didn't have that kind of thing that makes fire'.
(Sentence refers to 'matches'.)

(5.95) kianu, ɭɨ-ja ɲai........
like this leave-imp me
(Offering an example to explain a point) 'Like this, leave me'.

(5.96) kulμur kianu makaɭi- ajar-ku aʃi-ŋcaŋu
brolga hand one-dat lay-habitual
'The brolga lays as many as five eggs'.
(This sentence was given among descriptions of the habits of various birds. kianu 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 -pin clause,

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

(5.98) kantu puju ɭa-pin caa ɲa-ɭu ɲini 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. muţu 'together'

muţu ('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 ɲaɭi-i muţu-ŋ here-ŋ 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,
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 ɲu-ɲa,

(5.102) kaanta-ɲa pakai-ka kalpuru-ʈiŋu ɲin-ti ɲuŋa ɲapa leave-past that-Ø Boulia-abl you-erg rel-acc saw 'The one whom you saw left Boulia'.

(5.103) qaɨ uŋantịji-ɲa pa-u paʊr-ku ɲin-ti ɲuŋa laji 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-ɲa as relative + accusative. If this interpretation is correct then this would be the only appearance of the accusative marker anywhere in the language. -ɲa 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) qa-ʈu caa ɲapa ɲtia ɲuŋu cuŋpa-ɲa pa-ɲu ɲtia-piaŋu 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) kunτu qa-ʈu ɲapa ɲuŋu ɾumpi-ka not I-erg saw rel fear-Ø 'I didn't see what he was frightened of'.

Since the complement of the verb ɾumpi 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 ŋu representing an actant in a LOCATIVE relation produced.

(5.106) qa-ŋu ŋapa ŋtia ŋuu ŋa-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 ŋantí 'to stand on' and I would have expected -ŋa suffixed to ŋu-

There are also examples where ŋu is used with a verb suffixed by -mi (future) or -ŋa(past) plus -ti (locative). For example,

(5.107) qa-ŋu waterbag kuwuŋku puṭamaanti ŋu-wa ŋka-mi-ʈi
I-erg waterbag water-erg fill rel-.junit go-fut-loc
'I filled the waterbag when I was leaving'.

(5.108) caa qa-ŋu intakaipuniji kankaʁi-ka ŋai ŋuu
here I-erg forget knife-Ø I rel
arith-nti eat-a/p-past-loc
'I forgot the knife when I ate'.

(5.109) jarka-punija ati ŋuu aal-mi-ʈi
far-tr-imp meat rel put-fut-loc
'Move the meat away so that I can put it down'.

(5.110) ɲulurmi-ja caa piʃapiʃa ɲa ɲiŋa ɲa ɲuu
grab-imp here child here thing rel
aarl-mi-ʈi bandage ʷaŋka-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) kuwu caa qa-ʈu apa ɲampuŋuŋuŋa ŋu-wa la-mi-ʈi
water here I-erg gave before rel-juut kill-fut-loc
'I gave him water before killing him'.

(5.112) caa ucan caa aŋtau-ja caŋkaatɨ manqa ɲuu ini-mi-ʈi
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 ɲuŋa and the verb suffixed by -mi + ʈi. I present these below with glosses and the informants' translations.

(5.113) ɲai ɪŋka ɲuŋa ɲu-mi-ʈi
I go rel lie-future-locative
'I go so you can lie down'.
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 נקה may mean 'what?' or 'why?' or it may mark a polar question. נקא, נקאיאוועו ancockaakuwa (נקה + ja + ku + wa) נקאיאנ (נקה + jan) seem to be synonymous all meaning 'why'. נקאיאו may also express 'why?'

נקאיא, the locative case of ניקא expresses 'how?’, not נקאיאו as one would expect.

(5.118) נאיאע ipal? נייאו who name not know
'What's his name? I don't know'.

(5.119) נאיאע tjuna-mi a-i נייאו mani-ji-ka? who run-fut meat-dat comp-he get-a/p-Ø
'Who will run and get the meat?'
(5.120) **pan-ku gaa țuku?**
who-dat here dog
'Whose dog is that?'

(5.121) **naka nini jaŋaalu? jalanja, kalkatuŋu?**
what you language Jalarninga Kalkatungu
'What's your language? Jalarninga or Kalkatungu?'

(5.122) **caa macumpa gaka-ANTI pin-TI laji? jalpi-pia gaa**
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) **naka jakuwa pin-TI laji caa juŋa-ra-ka? li-ja!**
why you-erg hit here man-other-Ø leave-imp
'Why are you hitting this other man? Let him alone'.

(5.124) **naka gaa pin-TI itinti ji pang-a-pang’a n-giça**
what here you-erg bring:back wood:adder me-all
'Why did you bring that wood adder back to me?'

(5.125) **naka-jan pin-TI caa juŋa-ka laji? puṯuraŋa ntaŋa-CA**
what-con you-erg here man-Ø hit good sit-part
'Why did you hit this man?' 'He bin good.'

(5.126) **naka-țiŋu pin-TI maŋl-mi?**
what-caus you-erg rub-fut
'Why are you going to massage him?'

(5.127) **naka-jan-ati-miga-n nini?**
what-con-intr-imperf-you you
'What are you doing?'

(5.128) **naka-ja pin-TI țiŋlji-ka n-ça ci maŋpaŋ-ka?**
what-dat you-erg take-Ø me-dat woman-Ø
'Why did you take my wife?'

(5.129) **naka-jan-ati caa? țuku lamu caa-ka wataŋa-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-punji?**
what-con-tr
'What is he doing?'

(5.131) **gamiŋu nini apa? Auati**
how many you gave two
'How many did he give you? Two'.

(5.132) **niaŋu nini iti-mi? waŋa-ŋa**
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 cu tu-ka kuu-u-ja-ŋu-ka
where that coolaman-∅ water-dat-lig-adj-∅
'Where's the coolaman to put the water in?' ('coolaman
belong water')

(5.134) arakaği niini? ni ti
where you here
'Where are you? Here'.

(5.135) arakaği niini? kia-ka
where:to you this:way-∅
'Where are you going? This way'.

(5.136) kia niini (iŋka) t i kia-ka
which:way you go this:way-∅
'Which way are you going? This way'.

(5.137) ᵇa k aça j an ni-in ti laji-ka macumpa-ka? i n ci j i ŋa a
how you-erg kill-∅ kangaroo hit there
ŋa-tu ŋa j i-ku (i nci = '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 in-
tonation, (b) with wii or willi, or (c) ŋaka.

(5.138) ni-it a-ŋi-la? ŋakaakuwa ni-in ti ŋai la-mi-ka?
you-erg comp-me-hit why you-erg me hit-future-∅
'Are you going to hit me? Why are you going to hit me?'

(5.139) wii niini putura ini?
query you good be
'Are you being good?'

(5.140) willi ni-in ti waku-ka ciaji-mpa-n?
query you-erg skin-∅ take out/off-perf-you
'Have you taken the skin off?'

No significance appears to attach to the distinction between wii and
willi; both occur with intransitive and transitive verbs for instance.
wii may simply be willi with 1 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.
ŋarpa is the indefinite 'some creature'. ŋarpa .... ŋarpaŋara may be
used for '(the)one .... (the)other'.  miŋaŋara is 'something'. miŋaŋara
is also used in a way that corresponds to our use of terms like
'whatchamacallit' and there is a verb form miŋaŋarama 'to whatchamacallit'.
ŋarpa and miŋaŋara decline like regular nouns.
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: $S_1 V$

(6.1) wampa caa įŋka
     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) pini caa jani
     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. Ńaa may also be used but only if there is reference to a location relatively distant from the speaker, whereas caa and ŋaa need not have any deictic function (see §3.2.4.).

(6.4) ŋarkun paa ŋuna ŋampuŋati
     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)  
\[ \text{nan-ku n'\text{tia}} \]
who-dat money
'Whose money is it?'
\[ \text{kuntu n'a-ci-ka, caa j\text{\=a}} \]
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\textsubscript{1} V, A P V, A V P patterns listed above. Negatives and interrogatives, however, are virtually always in sentence-initial position.

(6.6)  
\[ \text{kuntu n'\text{in-\text{ti} a\=na pu\text{\=u}\text{r-ka}, n\text{\=i}nti a\=na tu\text{\=numpiri}} \]
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)  
\[ \text{\text{\=iu\text{r} n'tia-pia pir\text{\=i}na} \]
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)  
\[ \text{\text{nini \text{n'ka n'tia-a\=na jaun-ku\=na}} \]
you go mt-all big-all
'You're going to the big mountain'.

However, demonstratives and adnominal datives normally precede the head:

(6.9)  
\[ \text{n'a-\text{\=tu} nini cipa-ji ati-n'tu i\text{n\=ci-mi} \]
I-erg you this-erg meat-erg hit-fut
'I'll hit you with this meat'.

(6.10)  
\[ \text{n'a-ci papipi mi\text{n\=a\text{\=naramaji-nc\text{\=an}}} kariji-nc\text{\=an} mu\text{\=ru-u} \]
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)  
\[ \text{n'a-ci-ka kula-ji laji \text{\=tu\=ar mal\=i\=ta japacara-\text{\=tu}} \]
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) ṇa-cil kul-a-ji anka-man-ji-tu laji caa ṭuṇumpiri
       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 ṇa-li ku-ṇi, literally 'me:two wife' means 'my wife and I', ku-ṇi specifying the non first-person referent of ṇa-li.

ṇa-li ɲini  'you and I'
ṇa-li jani  'the white man and I'
ṇa-li muan-ṇu-wancir  'my cousin and I' (muan-ṇu
       'cousin' - wancir (see §5.2.7.3.)
ṭina jul-pajapaṭa  'they, a father and his son's
       (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, -ncam-*) marking. In most instances the verbs are semantically equipollent, i.e. there is no head and no modifier.

(6.13) ṇampu caa ṇa-tu ati-ka pieni pijipuniji
       completely here I-erg meat-Ø out chop
       'I chopped up all the meat'.

(6.14) kupan-ju caa ṇa-tu ṇapa ṇu-ncam-cin anka-cin
       old man here I-erg saw lie-contin-part ail-part
       'I saw the old man lying down ill'.

(6.15) pila-pila maṭu-unc-ja-ku ṇantamaji-ṇa ṇam-ja-ṇa
       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.

1See (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 marapai-tu-jana pila-pila 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. qarkun tapanu '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) -nin
       (ii) -manji
(d) temporal/relative clauses
(e) -ncaaja clauses
(f) time clauses in -nin, -ninta

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'), pantaji ('to inform'), pati ('to order,
to inform') occur with independent clauses functioning as their PATIENT.

(6.17) punpa-ja caa marapai tuntiji pa-ji na-ci cu Bu
       ask-imp here woman take that-erg me-dat cooZaman
       'Ask that woman if she took my cooZaman'.

(6.18) na-ju pini pati-na na-ci ma-tu Ieka-mi na-ci-ta
       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) ṇa-tu pini pati-qa kuntu ṇai-ka Ṽuwa-qi
     I-erg you tell-past not me-∅  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 -pin.

(6.20) pin-ti ṇai kuntu pati-qa caa cuṭu pin-ti mani-pin
     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 -ncaaja constructions regularly follow the main clause of the sentences in which they occur. -nin and -mani clauses follow the main clause if they qualify P in the main clause but they may be embedded following the S₁ or A of a main clause; similarly, 'relative' clauses in Ṽu......ji 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 kugu (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 Ṽu......ji constructions, but there are too few examples of noun phrases in this construction to indicate how fixed their position might be.

Where Ṽu or Ṽuqa occur functioning as relative pronouns they seem to occur as the second constituent in the Ṽu clause, the order being NP Ṽu verb:

(6.21) araka pakai pin-ti Ṽu-qa Ṽamaji-ka utupa
     where it you-erg rel-acc find-∅ frog
     'Where's the frog you found?'
The word order within -pin clauses seems to exhibit some variation and since most of the -maní 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 VS₁ 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 kugu
P ugu nu
```

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) pini-ka ūna, ɳa-ci kuja-ka maņu
you-Ø run me-dat fa-Ø slow
'You are faster than my father'.

(6.23) pini ɳai-ŋu pila-pila, ɳai kupaŋuru
you me-loc child I old man
'I'm older than you'.

(6.24) caa-ka jaun ulujan-ka, ɳarpaŋara katakuļu
here-Ø big eagle-Ø 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 S₁ or A from the non-initial clause.

(6.25) paa-miakaja iŋka-ŋa, jaji-ŋa
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 S₁ 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 narp as an indefinite agent.

(6.26) paa-miakaja iŋka-na, narp-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 S₁ and A by the S₁/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 S₁ or A function is represented by zero.

(6.27) mpara kuntu ŋantamai-na ŋurku-na 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) mpara-tu ŋana that caa, iŋka-na-ju ṭumparara-a,
woman-erg saw that here go-past-they:2 lizard-dat
iti-nti-ja-ju, laji-ju ṭumparara 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) mpara-tu nai laji kaki-jan-puniji-ŋi
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 ŋa-tu maniji ṭuar-ka jaɾari maniji-mpa laa wakini
here I-erg get snake-Ø tail get-seq now spin
laji-mantij-mpa mu-ju
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) ṅirili caa kupaŋuru
Nyirili here old man
'Nyirili is an old man'.

(6.32) kunka paa ṃipiri
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) ṇai-ka uŋtaji kuuŋku
I-ŋ soak rain-erg
'I got caught in the rain'.

(6.34) caa junji ḋa-ci ṭuku pilipuniji cipa-jji ŋtia-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 ḋa-ci ɡarpa-ṭu ḋaji
here cat me-dat someone-erg kill
'Someone killed my cat'. 'My cat got killed'.

The use of ḋaci 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, ḋincij is in focus. Note that ḋa-, 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. ḋinci on the other hand means 'to hit with a missile' or 'to chop':
"How did you kill the kangaroo?"

'I hit him with a stone'.

'He's clever that bloke'.

'This is the stick I used to hit the snake who was lying in the doorway'. ('With this stick I hit...')

'I caught [some] fish'.

'How many children does she have?'

'She has three'.

'With a net, I kill emus with a net'.

'I told Hickey.....'
(6.43) B.B. 'Where were you born?'

M.M. jamiįjį-jamiįjį-ji ɲai ɲa-ci maųju นมใช้ Old Hammerly-loc me me-dat mo-erg นมใช้ bear

'At Old Hammerly my mother had me'.

(6.44) macumpa, ɲakaći ɲin-ți łaçi?
kangaroo how you-erg kill

'The kangaroo. How did you kill it?'

jalpi-ți ɲaa ɲa-ți łaçi
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 kuļa ɲaa katįji-ɲa ɲiįį 
me-dat father here bury-past here

'My father was buried here'.

However, ɲaci kuļa in (6.45) is P not S₁ (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 kuļa 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. maų juji '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 ūna 'foot' and maṟa '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 Leichhardt [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 muṭa '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'.

<table>
<thead>
<tr>
<th>Kalkatungu and Wanyi</th>
<th>Vulgar Fraction</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;</td>
<td>5/150</td>
<td>3%</td>
</tr>
<tr>
<td>&quot; &quot; Mayiyapi</td>
<td>32/200</td>
<td>16%</td>
</tr>
<tr>
<td>&quot; &quot; 'Curr 97'</td>
<td>24/109</td>
<td>26%</td>
</tr>
<tr>
<td>&quot; &quot; Mayithakurti</td>
<td>38/150</td>
<td>25%</td>
</tr>
<tr>
<td>&quot; &quot; Wunamara</td>
<td>22/100</td>
<td>22%</td>
</tr>
<tr>
<td>&quot; &quot; Guwa</td>
<td>30/200</td>
<td>15%</td>
</tr>
<tr>
<td>&quot; &quot; Yanda</td>
<td>15/102</td>
<td>15%</td>
</tr>
<tr>
<td>&quot; &quot; Yalaringga</td>
<td>71/167</td>
<td>43%</td>
</tr>
<tr>
<td>&quot; &quot; Warluwara</td>
<td>22/900</td>
<td>2%</td>
</tr>
<tr>
<td>&quot; &quot; Bularnu</td>
<td>9/200</td>
<td>5%</td>
</tr>
<tr>
<td>&quot; &quot; Yaruwinga</td>
<td>3/150</td>
<td>2%</td>
</tr>
</tbody>
</table>
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, ɲa- 'I' and Nğu-Nt '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.

<table>
<thead>
<tr>
<th>English</th>
<th>Wanyi</th>
<th>Kalkatungu</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>ɲaka</td>
<td>ɲaji</td>
</tr>
<tr>
<td>you</td>
<td>niŋci</td>
<td>ɲinti</td>
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<td>crow</td>
<td>waakula X</td>
<td>wakaļa, wakaļa</td>
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<tr>
<td>corroboree</td>
<td>cʊŋpa</td>
<td>?</td>
</tr>
<tr>
<td>rock wallaby</td>
<td>ɲalinkedin naļi</td>
<td>ɲaļinaļi</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>English</th>
<th>Mayiyapi</th>
<th>Kalkatungu</th>
</tr>
</thead>
<tbody>
<tr>
<td>young man</td>
<td>japijiri</td>
<td>japariri</td>
</tr>
<tr>
<td>father's mother</td>
<td>papi X</td>
<td>papi(pi)</td>
</tr>
<tr>
<td>hair</td>
<td>warumpu</td>
<td>waɾupu</td>
</tr>
<tr>
<td>eye</td>
<td>mili</td>
<td>milți</td>
</tr>
<tr>
<td>beard</td>
<td>janpar</td>
<td>jaŋpar</td>
</tr>
<tr>
<td>stomach</td>
<td>wajir</td>
<td>waİra ('heart')</td>
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<td>navel</td>
<td>cʊŋpu</td>
<td>ciŋku</td>
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<td>wanstu, wan</td>
<td>unu</td>
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<td>kakl</td>
<td>kakl</td>
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<td>ɲarkunu  X</td>
<td>ɲarkun</td>
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<td>cıkal X</td>
<td>cıkal ('bandicoot')</td>
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<td>bandicoot</td>
<td>pikura, wuni X</td>
<td>pikura</td>
</tr>
<tr>
<td>flying fox</td>
<td>munur</td>
<td>muni ('bat')</td>
</tr>
<tr>
<td>fish</td>
<td>palpi, wakaji</td>
<td>wakaři</td>
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</table>

Wanyi

<table>
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<th>English</th>
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<th>Kalkatungu</th>
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<tbody>
<tr>
<td>young man</td>
<td>japijiri</td>
<td>japariri</td>
</tr>
<tr>
<td>father's mother</td>
<td>papi X</td>
<td>papi(pi)</td>
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<td>hair</td>
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<td>waɾupu</td>
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<td>mili</td>
<td>milți</td>
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<td>beard</td>
<td>janpar</td>
<td>jaŋpar</td>
</tr>
<tr>
<td>stomach</td>
<td>wajir</td>
<td>waİra ('heart')</td>
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<tr>
<td>navel</td>
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<td>ciŋku</td>
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<td>unu</td>
</tr>
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<td>kakl</td>
</tr>
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<td>kangaroo</td>
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<td>cıkal X</td>
<td>cıkal ('bandicoot')</td>
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<td>bandicoot</td>
<td>pikura, wuni X</td>
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<td>flying fox</td>
<td>munur</td>
<td>muni ('bat')</td>
</tr>
<tr>
<td>fish</td>
<td>palpi, wakaji</td>
<td>wakaři</td>
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</tbody>
</table>
eaglehawk
wild turkey
kookaburra/jackass
crow
black duck
fly
feather
sun
thunder
stone
tree
grass
boomerang
woomera
shield
meat
big
dark
black
sit, stay
see
three
I
you

kuriṭala  X  kuriṭala
parkamu, ṭuruṇa  X  parkamu
caruṇkul  X  caruṇkul ('jackass')
ṭuṇupari, waja  X  wakaḷa, waakaḷa
karapa, pintura  X  karapa ('duck')
miṇa, pimul  X  miṇa
kuṭi  X  kuṭi
kukuṭu, piṇcamu?  X  wanaka, piṇcamu
janpari, pari  X  janpiri ('lightning')
miṇṭi  X  niṭia
kuṅka, puku  X  kunka
kaṭir/kacīra  X  kaṭir
jalkube  X  jalkapari
jilman  X  julman
jampuru  X  jampuru
kaṭi  X  ati
jakun  X  jawun
waṭaṅka  X  waṛangka etc.
marcin  X  macin, marcin
jini  X  ini
ṇama  X  qa-
kurpaka, kurpaki  X  kurpaki
ṇajiku  X  ṇai
juntu  X  niṇi, niṇti

English
wallaroo
pelican
white cockatoo
crow
mosquito
fly
three
younger siblings
young man
baby
head
eye
ear
hair

ṇarkun  X  ṇarkun
walkiripari  X  walkiripari
jauṭa  X  ukan, wakan, wakaḷa
mika  X  miṭra, miika
miṇa  X  miṇa
kuṛpaki  X  kuṛpaki
kaṭakura  X  kaṭakuru ('small')
upariṇci  X  upariṇci
piḷapiḷa  X  piḷapiḷa
kaṇṭar  X  kaṇṭa
miḷi  X  miḷi
pina  X  pina
warumpu  X  waṛupu

Curr 97
Kalkatungu
<table>
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<th>Mayithakurti</th>
<th>Kalkatungu</th>
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<tr>
<td>young man</td>
<td>japariri</td>
<td>japariri</td>
</tr>
<tr>
<td>father's mother</td>
<td>papin (pi)</td>
<td>papin</td>
</tr>
<tr>
<td>mother-in-law</td>
<td>wapuçu</td>
<td>wapuçu</td>
</tr>
<tr>
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<td>warumpu</td>
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<td>milŋa</td>
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mosquito | mikaja, liwiŋ | X | mikara
flock pigeon | ciruwali | X | curuwali
thunder | janpari | X | janpiri ('lightning')
water | japu, kunu | X | kuu
grass | kaŋir | X | kaŋir, etc.
boomerang | jalkapari | X | jalkapari
woomera | julman | X | julman
nulla | taŋimpiri | X | taŋimpiri
shield | miŋa | X | miŋa
stone knife | kankari, kampu | X | kankari
axe | marija | X | maria
little | kakakuru, etc. | X | kakakuju
sit, stay | jini | X | ini
see | naŋ(k)ama | X | na-
three | kurpaŋa | X | kurpai
I | ? | X | ŋai
you | ? | X | ŋini

### Wunamara

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<td>eye</td>
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### Yalarnnga

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<td>urinate</td>
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<td>putu</td>
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<tr>
<td>thunder</td>
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</table>
Warluwara

English | Warluwara | Kalkatungu
---|---|---
old man | puŋya | uŋkuwuri ('big')
girl | wamba | ? wampa
stone chisel | kumpalta | ? kumpat
coolaman/corkwood | pili | pili (cradle for 'cooking'
pituri in)

bag | puŋguwali | ? puŋkuwari
fishing line | kaŋapi | waŋuku
forehead | miŋi | (kaŋta) mirimiri
armpit | kiŋki | kiŋkiŋama ('tickle')
breast | ŋama | ŋamaŋa ('cheet')
vagina | ŋintini | ? ŋinti
excrement | kuna | unu
be slow | maŋuri | maŋu
wallaroo | ŋarkunu | X ŋarkun
duck | ciŋi | X kipuŋu/cipuŋu ('duck/
whistler duck')
duck/wood duck | tiŋi | ?
crow | wakula | X wakula
willy wagtail | ciŋicinti | ? ciŋtipir
snake | tuwana | ŋuar
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<td>juwu</td>
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<td>you</td>
<td>jipa</td>
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<td>(kanta) mirimiri</td>
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<tr>
<td>wild orange</td>
<td>waṭaci</td>
<td>waṭaci</td>
</tr>
<tr>
<td>small</td>
<td>ṭapukutu</td>
<td>ṭapikula, kaṭakuλu</td>
</tr>
<tr>
<td>who</td>
<td>nahi</td>
<td>nani</td>
</tr>
<tr>
<td>dig</td>
<td>pati</td>
<td>waṭukati</td>
</tr>
</tbody>
</table>

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 kuni 'father's sister' in Wunamara is probably
a borrowing shared with Kalkatungu kuo '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.

<table>
<thead>
<tr>
<th>Kalkatungu and Wanyi</th>
<th>2/150</th>
<th>1%</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot; &quot; Mayiyap1</td>
<td>19/200</td>
<td>10%</td>
</tr>
<tr>
<td>&quot; &quot; Curr 97</td>
<td>11½/109</td>
<td>11%</td>
</tr>
<tr>
<td>&quot; &quot; Mayithakurti</td>
<td>13½/150</td>
<td>9%</td>
</tr>
<tr>
<td>&quot; &quot; Wunamara</td>
<td>9/100</td>
<td>9%</td>
</tr>
<tr>
<td>&quot; &quot; Guwa</td>
<td>17½/200</td>
<td>9%</td>
</tr>
<tr>
<td>&quot; &quot; Yanda</td>
<td>8/102</td>
<td>8%</td>
</tr>
<tr>
<td>&quot; &quot; Yalarngga</td>
<td>38½/167</td>
<td>23%</td>
</tr>
<tr>
<td>&quot; &quot; Warluwara</td>
<td>15/900</td>
<td>2%</td>
</tr>
<tr>
<td>&quot; &quot; Bularnu</td>
<td>6/200</td>
<td>3%</td>
</tr>
<tr>
<td>&quot; &quot; Yaruwinga</td>
<td>3/150</td>
<td>2%</td>
</tr>
</tbody>
</table>

Kalkatungu shares a much higher percentage of its vocabulary with Yalarngga 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 Yalarngga, Kalkatungu and Yalarngga represent separate groups within the same family and Yalarngga 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 Yalarngga and Yalarngga 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, Yalarnnga, and therefore Kalkatunugu, 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 Yalarnnga 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 Kalkatunugu 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 phonemotactic 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 Yalarnnga and Kalkatunugu, we find that Kalkatunugu has undergone a number of phonological changes not shared by Yalarnnga. This means that words found in Yalarnnga and Kalkatunugu 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 wakari '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 r, 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. njina 'rock wallaby' is shared with Mayithakurti, walkiriripari 'pelican' is shared with Mayithakurti and Curr 97, kpu 'spider' with Mayithakurti and mila 'fly' with Mayithakurtu, Wunamiara, Curr 97 and Mayiyapi. Mayiyapi was not contiguous with Kalkatungu and significantly the word pimul 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 Yalaringga I am unable to determine the main direction of borrowing with any confidence.

In the case of Yaruwinga, 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
Yaruwinga (Jaroiŋa) as having a border with Kalkatungu, but Breen places Bularnu between Yaruwinga and Kalkatungu. Breen's version makes good linguistic sense. It places three obviously related languages Wakaya, Bularnu (not shown on Tindale's map) and Warluwar in a continuous bloc. Tindale does not show Wanyi (or Waanyi) as having any border with Kalkatungu, but places 'Wa:ka:buŋa' 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 communalets 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 Yalarungga (with which it certainly had a common border). Kalkatungu exhibits very little shared vocabulary with Bularnu and Warluwar. Note in passing that the number of Kalkatungu and Warluwar 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 puri ('fire') appears as rwi (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 phonemetactics 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' tarkun (Mayiyapic Q.) arkun
'faeces' kuna (Yalaringga Q., etc.) (w)unu
'meat' waru (Yalaringga Q.) ati
'sit' gina (""") ini
'eat' nari(li) (""") ar(i(li)
'where' sharV (""") ara
'sheek' nuku (Pitjantjatjara W.A.) (w)uku
'big' pulka (""") (w)u|ku-uri('long')
'ant' Iti (Pitta-Pitta Q.) (j)iti
'house' *kulu (proto-Ngayarda W.A.) (w)ulu
'be ill' yanika (Yalaringga Q.) anka
'enter' *nara (proto-Paman, Q.) ara
'seremonial knife' kuji, kujana (Pitta-Pitta Q.) (w)ujin
'teeth' yati (Mayikulan, Q.) ati (Wunamara, Q.)

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 (Yalaringga Q.) ñkaa (see §3.2.2.)
'hole' láŋtu (""") ñuu (""")
'you two' gumpala (""") mpaja
'stomach' ñapura (Mayithakurti Q.) putu
'stone' miŋti (Mayiyapic Q.) ñia
'hit, kill' wala- (Yalaringga Q.) ña-

Assimilation

A low vowel in the second syllable has assimilated to the high vowel of the first.

'faeces' kuna (many other) (w)unu
'sit' NYina (proto C.A.) (j)ini
'big' pulka (Pitjantjatjara W.A.) u|ku-uri('long')
'ant' Iti (Pitta-Pitta Q.) (j)iti
'they two' pula (Yalaringga Q.) puju
'if' pula (""") puju
'stomach' ñapura (Mayithakurti Q.) putu
Loss of Medial Consonants

There are some cases of an intervocalic consonant having been lost between identical vowels.

'water'  kunu  (Yalarringsa Q.)  kuu
'sand'  mutu  (" )  muu
'food'  manja  (" etc.)  maa
'this'  cala  (" )  caa
'yam'  yaŋkata  (" )  ŋkaa

Independent of this there is a synchronic tendency in Kalkatungu to delete a consonant between like vowels (see §2.13.).

There are some instances of l in the sequence Vlα becoming j:

'if'  pula  (Yalarringsa)  pju
'they two'  pula  (" )  pju
'you two'  Ṯumpala  (" )  mpaja
anti-passive  -lį  (" )  -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 Ṯumpala with l are common among Pama-Nyungan languages. Moreover Kalkatungu j corresponds to j in a number of other Pama-Nyungan languages.

Kalkatungu and Yalarningsa both reflect the common Australian form for 'we two' as ŋali rather than ŋali as expected. The common Australian ergative/instrumental allomorph for vowel stems occurs as -lů rather than the expected -lů, a feature also found in Walbiri (-lů), Wagaya (-l < *lů) and Walmadjari (-lů). See §3.2.2. and §3.2.4. Note also the retention of the liquid in the anti-passive of -lα class verbs. See §4.1.

The following correspondence has also been noted:

VrV  <-->  Kalkatungu  VtV

'meat'  wari  (Yalarningsa Q.)  ati
'stomach'  ŋapura  (Mayithakurti Q.)  putu
'man'  iri  (Yalarningsa 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 -tati (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 -tati with -ati is still viable. However, the amount of evidence I have is small. Consider the following cognates:

<table>
<thead>
<tr>
<th>'fire'</th>
<th>ucan</th>
<th>Yalarnnga</th>
<th>wacani</th>
</tr>
</thead>
<tbody>
<tr>
<td>noun-forming suffix</td>
<td>-nciri</td>
<td>&quot;</td>
<td>-nciri</td>
</tr>
<tr>
<td>'wallaroo'</td>
<td>ńarkun</td>
<td>&quot;</td>
<td>ńarkunu</td>
</tr>
<tr>
<td>'brolga'</td>
<td>kulur</td>
<td>Guwa</td>
<td>kuluru</td>
</tr>
<tr>
<td>'snake'</td>
<td>ōar</td>
<td>Warluwara</td>
<td>ōwana</td>
</tr>
<tr>
<td>Bularnu</td>
<td>ōwati</td>
<td></td>
<td></td>
</tr>
<tr>
<td>'fruit' (sp. unknown)</td>
<td>pipiŋ</td>
<td>Yalarnnga</td>
<td>pipiŋ</td>
</tr>
<tr>
<td>participle</td>
<td>-nin</td>
<td>&quot;</td>
<td>-nana</td>
</tr>
</tbody>
</table>

-nciri, ńarkunu and kuluru 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, ōwati and pipiŋ 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. puṭur or puṭura '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 -tati 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
* ṭaila + ṭati > ṭailaṭati > ṭailaati

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 Yalarnnga and to a lesser extent other Pama-Nyungan languages.

First of all let us have a look at the free pronouns in Kalkatungu and Yalarnnga.

<table>
<thead>
<tr>
<th></th>
<th>K</th>
<th>Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sing. 1</td>
<td>ṇai</td>
<td>ṇia</td>
</tr>
<tr>
<td>2</td>
<td>ṇini</td>
<td>ṇawa, ṇu-</td>
</tr>
<tr>
<td>3</td>
<td>ṇa</td>
<td>ṇa</td>
</tr>
<tr>
<td>Dual</td>
<td>ṇa</td>
<td>ṇa</td>
</tr>
<tr>
<td>2</td>
<td>mpaja</td>
<td>ṇumpala</td>
</tr>
<tr>
<td>3</td>
<td>puju</td>
<td>pula</td>
</tr>
<tr>
<td>Plur. 1</td>
<td>ṇata</td>
<td>ṇawa</td>
</tr>
<tr>
<td>2</td>
<td>ṇatu</td>
<td>ṇa</td>
</tr>
<tr>
<td>3</td>
<td>ṇina</td>
<td>ṇana</td>
</tr>
</tbody>
</table>

K ṇai and Y ṇia can both be derived from *ṇaja. 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 ṇini, ergative ṇinti and dative ṇunku. Y has nominative ṇawa and oblique stem ṇu-. The second person singular root in Pama-Nyungan is commonly ṇin-, ṇun, ṇin, ṇun, ṇin or ṇun. 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 runtu. 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 ga, 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, ñini. The second syllable appears to have resulted from the addition of -ña or ña with subsequent assimilation (ñin + ña > ñina > ñini) or simply from the repetition of the stem vowel. The suggestion that -ña or -ñal may have been added requires some justification. Blake (1979:347) elaborates Dixon's thesis that monosyllabic pronouns were augmented by claiming that -ña or -ñal, 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

<table>
<thead>
<tr>
<th></th>
<th>first singular</th>
<th>second singular</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1</td>
<td>ñaña</td>
<td>ñini</td>
</tr>
<tr>
<td>A</td>
<td>ñacu</td>
<td>ñuntu</td>
</tr>
<tr>
<td>P</td>
<td>ñaña</td>
<td>ñini</td>
</tr>
</tbody>
</table>

Kunggari

<table>
<thead>
<tr>
<th></th>
<th>first singular</th>
<th>second singular</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1</td>
<td>ñaña</td>
<td>ina</td>
</tr>
<tr>
<td>A</td>
<td>ñañu</td>
<td>inti</td>
</tr>
<tr>
<td>P</td>
<td>ñaña</td>
<td>ina</td>
</tr>
</tbody>
</table>

As can be seen by comparing the S1/P first and second person forms in Nyunga, it looks as if ñini could arise from *ñin + NYa > *ñina > ñini (where NYa represents a laminal nasal that is reflected as ñ or ñ as outlined in Dixon 1970). The K ergative of the second singular is ñinti which seems to reflect assimilation from *-tu to -ti as posited for ñini. 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 aļa as an oblique stem with an ergative lii. Y has Tplaja. Although these forms look similar they may not be related. K aļa must derive from ṇaļa by initial dropping as in Nhanda a Western Australian language which has aļa (probably from a demonstrative root *pala) (O'Grady et al.
1966:122). The common Queensland third person singular pronoun roots are Nyu (masculine) and Nyan (feminine).

The first person dual in Australia is commonly ga:li. K and Y are distinctive in having a dental lateral - əla:li. Note in passing that K has an ergative allomorph -ɪu presumably from *ɪu (see Hale 1976). It is possible that an earlier ɪ split into i (before i), ɪ (before a) and ɪ (before u). The form -ɪu 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 i (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 i 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, ñawa, seems to contain the augment -wa. K has ñata, but since the corresponding bound form is -ti, it makes sense to posit proto-K *ñati and allow for progressive assimilation. Australian languages vary greatly in the way they develop a first person plural from the root ña-. K and Y exhibit forms that are not found among other languages in the area.

In the second plural K ñu:tu is similar to the likely Pama-Nyungan proto-form *Nyura (reflected as ñuru, ñura, jura etc.) exhibiting independently attested progressive assimilation and an unexplained hardening of r to t. The Y form ñala is unexpected and is presumably an innovation.

In the third plural, Y contains the expected Pama-Nyungan form ñana. K ñina could plausibly be explained as containing a reinterpretation of unstressed variants of a following a lamino-dental (which produces fronted allophones).

\[ *\text{ñana} \quad \longrightarrow \quad *[\text{ñena}] \]
\[ *[\text{ñena}] \quad \longrightarrow \quad \text{ñina} \]

In sum, the following proto-K forms seem likely:

1If the form 1aa which I have given tentatively as third singular nominative is genuine, it could derive from *1a:ja by the independently attested rule of deleting consonants between like vowels.
K has bound pronouns while Y has virtually none. Y has only one bound pronoun form viz. -ŋu used to mark the plural $S^1$ or A of imperatives. It presumably reflects the proto-Pama-Nyungan form *Nyura. 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 *Nyura, 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:

Sing. 1  *ŋaja
       2  *ŋina
       3  (*Cala oblique stem)
Dual  1  *ŋali
       2  *ŋumpala
       3  *pula
Plural 1  *ŋati
       2  *ŋura
       3  *tana

7.6. BOUND PRONOUNS
With the third dual, -muju is used in the present tense and -ju elsewhere. -∅ in the first and third singular of the S₁/A column indicates the absence of an overt form in those paradigms where the use of a bound pronoun is obligatory viz. with -miŋa (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 S₁/A with the free forms, we can see some lines of derivation:

<table>
<thead>
<tr>
<th></th>
<th>S₁/A</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sing.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>-∅</td>
<td>-ŋi</td>
</tr>
<tr>
<td>2</td>
<td>-n</td>
<td>-kiŋi</td>
</tr>
<tr>
<td>3</td>
<td>-∅</td>
<td></td>
</tr>
<tr>
<td>Dual</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>-l</td>
<td>-la</td>
</tr>
<tr>
<td>2</td>
<td>-ŋu</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>-(mu)ju</td>
<td></td>
</tr>
<tr>
<td>Plural</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>-t</td>
<td>-ta</td>
</tr>
<tr>
<td>2</td>
<td>-ŋut</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>-ŋa</td>
<td></td>
</tr>
</tbody>
</table>

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 1 to 1 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 S₁/A bound pronouns that occur with the complementiser a- :
Sing.  1  laa
     2  ani
     3  ai
Dual  1  ali
     2  aqi
     3  ailu
Plural 1  ati
     2  aqur
     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 *ŋati* by the same process. As I suggested above, the current free form for first person plural can be derived from *ŋati* by an independently attested rule of progressive assimilation. In the case of the bound *S₁/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 1 > 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 *S₁/A* bound pronouns. Let us consider the imperatives:

\[
\begin{array}{lll}
V₁ & \text{sing.} & iŋka-ja-n & \text{‘go!’} \\
    & \text{dual} & iŋka-ja-mpi & \text{‘You two go!’} \\
    & \text{plural} & iŋka-ja-tu & \text{‘You mob go!’} \\
V₂ & \text{sing.} & ja-ja-če & \text{‘Kill!’} \\
    & \text{dual} & ja-ja ku-mpi & \text{‘You two kill!’} \\
    & \text{plural} & ja-ja ku-tu & \text{‘You mob kill!’}
\end{array}
\]

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 *ŋutu* and -mpi representing the second and third syllables of *ŋumpaja* (> ŋumpaja > 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 6 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 *kunuta yielding kutu. This accounts for the fact that ku appears with forms representing S1/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.

<table>
<thead>
<tr>
<th>Forms used with independent verbs</th>
<th>Forms used with a-</th>
<th>Forms used with the 'lest' construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sing. 1</td>
<td>-ŋi</td>
<td>aŋi</td>
</tr>
<tr>
<td>2</td>
<td>-kin</td>
<td>akin</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dual 1</td>
<td>-la</td>
<td>akila</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>akumpaja</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plur. 1</td>
<td>-ta</td>
<td>akita</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>akutu</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>a .. kina</td>
</tr>
</tbody>
</table>

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 *ŋat'i 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 -1 for the S1/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 ṇati 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-ṇini > kuni > kini > kin
*ku-ṇaḷi > kuḷi > kuḷi > kil
*ku-ṟumpaja > kumpaja > kumpaja > kumpaja
*ku-ṇaṭi > kuti > kiti > kḷi
*ku-ṟutu > kutu > kutu > kutu

The three steps here are: (a) delete first syllable of pronoun, (b) u > i / _C₀i, (c) i > ø / _#. Steps (a) and (c) are independently attested. Step (b) occurs in ṇin-ku > ṇunku. 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:

kil-la > kila
kit-ta > kita

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-ñana > 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 ku-la and ku-ta 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 umu used where S₁ is first or second person, ku-ŋu where A is first or second person and ana where S₁
or both A and P are third person. *ku* doubtless represents *ku* plus *
u* , but the relationship between *
u* and *
*u* 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) \texttt{rumpi \text{

ai} \text{

ima} \text{

ku}-\text{

n} \text{

kina}\text{\texttt{fear \text{\texttt{I} break \text{\texttt{lest-you them}}}}'} \texttt{'I'm afraid you might break them'.}

Altogther we have the following schemas:

\begin{align*}
V_1 & \quad \text{\texttt{unu}} \quad S_1(1,2) \\
V_t & \quad \text{\texttt{ku \unu}} \quad A(1,2) \quad \text{\texttt{ku P(3)}} \\
V_1, V_t & \quad \text{\texttt{ana \ku}} \quad S_1/A(3) \quad P(3) \\
V_t & \quad \text{\texttt{ku}} \quad P(1,2) \\
V_t & \quad \text{\texttt{ku}} \quad A(1) > P(2)
\end{align*}

Note that *unu* 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 *unu* 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) \texttt{rumpi \text{

ai} \text{

ana} \text{

kuju} \text{

\nuji}\text{\texttt{fear \text{\texttt{I} lest they:2 fall}}'} \texttt{'I'm afraid they'll fall'.}

However, *kuju* and *kina* are also exceptional in that they indicate P in clauses with *unu* giving two instances of *ku* in the one clause:

(7.5) \texttt{rumpi \text{

ai} \text{

laa} \text{

ku}-\text{

n} \text{

kuju}\text{\texttt{fear \text{\texttt{I} kill \text{\texttt{lest-you they:2}}}}'} \texttt{'I'm afraid you'll kill them'}. 

A synchronic analysis would have to recognise the *ku* of *unu* 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 indicates for the imperative (see above). *\texttt{\texttt{jina}}* and *\texttt{pulu}/*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: 

\begin{align*}
V_1 & \quad \text{\texttt{unu}} \quad S_1(1,2) \\
V_t & \quad \text{\texttt{ku \unu}} \quad A(1,2) \quad \text{\texttt{ku P(3)}} \\
V_1, V_t & \quad \text{\texttt{ana \ku}} \quad S_1/A(3) \quad P(3) \\
V_t & \quad \text{\texttt{ku}} \quad P(1,2) \\
V_t & \quad \text{\texttt{ku}} \quad A(1) > P(2)
\end{align*}

Note that *unu* 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 *unu* 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:

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ai} \text{

laa} \text{

ku}-\text{

n} \text{

kuju}\text{\texttt{fear \text{\texttt{I} kill \text{\texttt{lest-you they:2}}}}'} \texttt{'I'm afraid you'll kill them'}. 

A synchronic analysis would have to recognise the *ku* of *unu* 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 indicates for the imperative (see above). *\texttt{\texttt{jina}}* and *\texttt{pulu}/*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:
It seems that kuju and kina, since they must have represented both A and P at one stage, were then generalised to $S_1$ in 'ana' constructions (and also in -maŋgi constructions - see §4.2.5.). The appearance of kuju and kina in clauses with kunu (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:

<table>
<thead>
<tr>
<th>Disyllabic Vowel Stems</th>
<th>Longer Vowel Stems</th>
<th>Kin</th>
<th>Consonant Stems (Kalkatungu only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nom.</td>
<td>K Y</td>
<td>K Y</td>
<td>K Y</td>
</tr>
<tr>
<td>Erg.</td>
<td>K Y</td>
<td>K Y</td>
<td>K Y</td>
</tr>
<tr>
<td>Loc I</td>
<td>K Y</td>
<td>K Y</td>
<td>K Y</td>
</tr>
<tr>
<td>Dat.</td>
<td>K Y</td>
<td>K Y</td>
<td>K Y</td>
</tr>
<tr>
<td>Purp.</td>
<td>K Y</td>
<td>K Y</td>
<td>K Y</td>
</tr>
<tr>
<td>Loc II</td>
<td>K Y</td>
<td>K Y</td>
<td>K Y</td>
</tr>
<tr>
<td>Caus.</td>
<td>K Y</td>
<td>K Y</td>
<td>K Y</td>
</tr>
<tr>
<td>Abl. locative I plus</td>
<td>K Y</td>
<td>K Y</td>
<td>K Y</td>
</tr>
<tr>
<td>All I</td>
<td>K Y</td>
<td>K Y</td>
<td>K Y</td>
</tr>
<tr>
<td>All II</td>
<td>K Y</td>
<td>K Y</td>
<td>K Y</td>
</tr>
</tbody>
</table>

### 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, -ţu 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, -ţu 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 -ţu and -cu to reflect a laminal -TvU, but I have no explanation for -ţu instead of -lu in Kalkatungu. As I suggested above, Yalarnnnga -ju probably represents a lenited -TVu since intervocalic lenition of -TV-to -j- is widely attested.

Since K j reflects both *i 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 -lu. 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):

<table>
<thead>
<tr>
<th></th>
<th>i stems</th>
<th>a stems</th>
<th>u stems</th>
</tr>
</thead>
<tbody>
<tr>
<td>erg.</td>
<td>'mother's brother'</td>
<td>'father'</td>
<td>'mother'</td>
</tr>
<tr>
<td>dat.</td>
<td>pupi(j)i</td>
<td>kuja(j)i</td>
<td>maţuju</td>
</tr>
</tbody>
</table>

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 źuku 'dog' has an ergative źukuju, maľja 'mob' has maľţaji 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. Yalarnnnga exhibits -ŋka with disyllabic vowel stems while Kalkatungu has -pia. However, Kalkatungu has -ŋka with kuu 'water' (kuŋka) and with źţuu 'hole' and mpuu 'rotten' (ŋtuuka 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 -tä for longer vowel stems in K is an innovation. The allomorph that we would expect, given that the ergative for long vowel stems is -tu, is -tä and this does occur with the ligatives -wa and -ja (see §5.8.). -ta occurs with ucan 'fire' and the participle -pin, and -tä occurs with ulaŋ 'high (of sun)', giving further vestigial evidence of an earlier -tä (< *tä?).

Y has -tä 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 -ta. -tä 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 -tä, -la and -ŋka frequently have purposive type functions.

In K the locative allomorph -ŋu appears with jur- 'man' (jur-ŋu) and juku 'dog' (jukŋu) and occasionally with other animate nouns.

The allomorph -tä occurs with kua 'creek' and -tu with muu 'camp' (presumably the vowel of the suffix has assimilated to the stem vowels). -tä 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 -tä 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 -u 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' *kuni-ku leniting to kuniwu
'kangaroo' *macumpa-ku " " macumpawu
'spider' *kupu-ku " " kupuwu

The w in macumpawu and kupuwu would not have been significant (given the present-day phonemotactic system) and they could have been
reinterpreted to macumpau and kupu. As a further step we could posit
loss of w in kujiwu 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 erga-
tives'.

Note on maa, ati.

maa 'vegetable food' and ati 'meat' have distinctive paradigms:

<table>
<thead>
<tr>
<th></th>
<th>maa</th>
<th>ati</th>
</tr>
</thead>
<tbody>
<tr>
<td>ergative</td>
<td>maatů</td>
<td>atinů</td>
</tr>
<tr>
<td>locative</td>
<td>maatů</td>
<td>atinů</td>
</tr>
<tr>
<td>dative</td>
<td>maaci</td>
<td>atinci</td>
</tr>
<tr>
<td></td>
<td>or maaciwa</td>
<td>or atinciwa</td>
</tr>
<tr>
<td></td>
<td>maacuwa</td>
<td>atinciwa</td>
</tr>
</tbody>
</table>

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 mañja. Presumably it was also the proto-K form and this caused dis-
similation of the nasal-stop cluster in the suffix. mañja 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 augment.
The -ŋu that is used to derive the causal and ablative forms can plaus-
ibly be related to the relative pronoun ňu 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 -qa to the dative. This -qa may be a reflex of the common Australian accusative marker -NYa which shows up in K as -qa suffixed to -ŋu 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 -rna present, -rnu past and -rni future. K has -ọ, -qa and -mi respectively. -qa 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 ñc, a sequence found in parallel functions in Pitjantjatjara, Walbiri, etc. Some of these are paralleled in Y:

- purposive K ñcaaja Y ñcaţa
- continuing ñcaani
- habitual ñcaŋu
- participial ñin
- noun forming ñcir

Y ñcaţa is built up from ñca plus the purposive -ţa. Y appears to have simplified the ñ cluster in ñcaŋu, since it exhibits ñanu. In K the nasal-stop dissimilation rule operates with the ñc series, but in the case of the participle we find -ţin as the basic allomorph and -ćin with nasal-stop stems. Presumably -ţin derives from a form with a homorganic nasal-stop cluster as does the corresponding Y form. The discrepancy in the vowels of -ţin and -ţana is paralleled by the forms
for 'they': K - ūna, Y - ëna. The widespread Pama-Nyungan form is ūna (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 ūn: ūna was a. If the final vowel was lost in K as suggested in §7.4., then the proto participle was probably *ŋcana.

It is interesting to note that the form -(ŋ)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 - ŋama.
'MY WIVES AND CHILDREN'

MICK MOONLIGHT

ŋai uŋtəntiŋŋa marapa-i-malta-a, na-tu naur maniji maŋati-
I have-past woman-dat mob-dat I-erg kid get hand
'I had a number of women. I got ten children

ŋaraŋa maŋati-garaŋa. puŋtər naur na-ci, na-ci kunji puŋtər.
other hand other good kid me-dat me-dat spouse good.
'(They're) good, my kids (and) my wife is good'.

ŋai ini kalpuru-ti jalaŋŋa-a-jə-tə mu-lu uli na-ci-ka
I live Bouliá-loc Yalaringga-dat-lig-loc country-loc die me-dat-∅
I live in Bouliá in Yalaringga country. My first

wacali-naŋu-ka marapaŋ na-ci uli wacaliŋŋaŋ uŋ-waŋ uŋtəntiŋŋa
first-adv-adj-∅ woman me-dat die first-adv rel-∅ have-∅
woman died. She died, the one I had first.

ŋa na-tu marapaŋ uŋtəntiŋŋi tliŋtə-naŋ, tliŋtə marapaŋ na-tu uŋtəntiŋ.
here I-erg woman have middle-adj middle woman I-erg have
Then I got a second woman, I got a second woman.

kurpaŋ na-tu pilaŋŋa na-ci-wa-tuŋu marapa-tuŋu na-ja
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?] maŋara arkuanaŋ paŋkumpriri arkuanaŋ.
what'sit belligerent somewhat belligerent
'She was, whatshamacallit, savage, a little bit savage.

1Compare this use of ŋu and the use of ŋu in wacaliŋŋaŋuka. 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'.

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I-erg relinquish
'I let her go'.

[Did you have to give her a hiding?] ṅa-ty laji, mañta-ñyan ṅa-ty laji  
I-erg hit many-times I-erg hit
'I hit her. I hit her a lot.

iŋka-na, kaanta-na ṅa-ty la-ŋin-ka. narpa-ña 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
narpa-ti ini-ka. narpa-ty uñantiji-ka.  
other-loc remain-∅ other-erg have-∅
someone else, with someone else. Someone else has got her'.

[You got a third one?] uñinka-ŋu ŋa-ci marapai ṅa-ty uñinka-ŋu  
behind-adj me-dat woman I-erg behind-adj
'My last woman, the last woman I got,
marapai uñantiji putur caa marapai-ka, kuntu nti-ji-caŋu ŋa-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?] ṇai paŋti iŋka-na mara,  
I there go-past indeed
'I went there all right.

mañta-ñyan ṇai iŋka-na pa-ŋa wanaŋa ṇai unpi-cin jaramana,1  
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:ŋ unpi-cin a-i  ṭuna. ŋa-ci jaramana, kantu  
racecourse take-part comp-he run me-dat horse not
the racecourse to run. My horse, not a
jaŋi-i-ka. ŋa-ci jaramana aŋaŋara ṅa-ty unpi-cin  
white:man-dat-∅ me-dat horse self I-erg take-part
white man's. I took my own horse to
biduri-iŋa a-i  ṭuna. [ŋani-ka ³pali?] ipal-ka ³pani-ŋu  
Bedourie-all comp-he run who-∅ name name-∅ who-loc(?)
Bedourie to run. What was his name? His name was

1Apparently an error. wanaŋa and jaramana should be dative.
Ranpan (= Frying Pan?) and he was, what'sit, a chestnut'.

I took another horse. I took two horses of mine

A good name. I made up the name myself. I had

He didn't win. (The jockey) pulled him'.

[The jockey was a japi (= white man)?] 'Yeah,

He rode my horse, Clipper Lad. The other jockey won

I trained the horse myself. I used to run him around,

I'd take him out of an evening to trot him.

I didn't gallop him hard, I'd just trot him a bit'.

1-mauci seems to be a causative reflexive 'make him turn himself', the -nci being the same as the one noted in note 2, p.154.
[Was Clipper Lad a chestnut?] miñaŋara paŋkümplit braʊn. ŋa-ŋu maŋa whatigit little brown I-erg many
'He was, whatgit, bit brown. I had a lot

jaramana ŋa-ci-ka uŋtinti maljia uli waŋaka-ŋu kaŋiŋ-iti. horse me-dat-ŋ other 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.

ŋaa-ka kuraŋapu juu-ŋa tunit-ŋa kajunkara-ŋu ŋtia-ŋa a-i
the-ŋ 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

ŋampuwaŋini. kuričiŋi ini-ŋa pirina ŋtia-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 waʃara-ŋtijji maumunu kaiti-nin.
up come:out-tr roo cover-part
called out and made the kangaroo, who was buried, come up out (of the dust).

kuraŋapu tunit-ŋa ŋtia-ŋa waʃara-ŋtii-ji-caoja. urumpa-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,

ŋampuwaŋini-ŋa (ŋtia-kuŋu)1, ŋtia-pia kajunkara-ŋu.
turn:around-past hill-caus hill-loc dust-caus
having turned around on the hill from/because of the dust.

waʃara-ŋci-ji-tu, pınta-cama-ti-tu maŋa come-out-?2-imp-you:pl spread-tr-re-you:pl many-adv
Get up, you mob! Spread out in great numbers.

1 I presume ŋtia-kuŋu is given in error for ŋtia-pia, the causal probably anticipating the causal of kajunkara-ŋu.

2 The function of -pc is clear from the passage. It is a reflexive and gives to waʃara 'come out, emerge' the sense of 'get up'. Thus waʃaranc would be like the Italian verb alzarsi 'to get up' where -si is reflexive. However, waʃara is not transitive like Italian alzare 'to raise' and in theory requires transitive with -pcama before it can be made reflexive or reciprocal by -ti. -pc then is in lieu of the expected -pcama-ti-, which does occur in the next word.
Come out and eat the grass, and crawl to various places, and go to various trees, and to various rivers,

come-out-imp-you:pl come-out-imp-you:pl

(He made all them animals get up. That's the world'.)

'HOW I WAS BORN'

LARDIE MOONLIGHT

My mother went from Tarrki-Tarrki to Cloncurry to go to the hospital. She had

too quick before he inka-na I was born went

And they took me too. The big car went and

1 iti normally means 'return, go back'.

2 The only instance of -jan with a pronoun.

3 lit. 'become eyes'.
took my mother to the doctor, took her to the hospital, took her to the hospital so she could stay.

mankag a a-i tail-at i get settled down, get better.
later comp-she firm-become
(there) a while till she got strong.'

'PLANTING'

MICK AND LARDIE MOONLIGHT

LM ŋaa-ka² waŋukatiji ŋa-ci-ka łaŋtu-ka
here-∅ dig me-dat-∅ hole-∅
'This one here dug a hole for me'.

MM łaŋtu ɲin-ti waŋukatiji?
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 ŋkaajimanti?
tree-dat-∅ comp-you plant
'The tree, are you going to plant it?'

LM ŋaa, ŋa-ŋu pati-na ikii a-i waŋukati-ji
yes I-erg tell-past Hickey comp-he dig-a/p
'Yes, I told Hickey to dig'.

MM ɲani ɲin-ti pati-ŋa?
who you-erg tell-past
'Who did you tell?'

¹itintiji is iti 'return' + nti- but it means 'bring' or 'take' not necessarily 'bring back'.

²Since łaŋtu is nominative and waŋukatiji is transitive, there must be an A in the clause. I take it that the third person A is represented by zero and that ŋaa is adverbial. However, it is difficult to be certain that ŋaa is not pronominal with neutralisation of the ergative and nominative.
'I told Hickey to dig a hole.'.

'The kid?'

'I told the kid to dig a hole.'.

'To dig a hole.'.

'He dug it with that whatsitname'.

'The white one'.

'Yeah, I planted it and watered it'.

'Watered it?'

'Yeah, these shoots come out and then the tree grows and gets tall'.

---

1See note 2, p.154.
'COOKING BY THE CREEK'

MICK AND LARDIE MOONLIGHT

LM ŋali pini ŋka-ŋa ŋkara-a a-łu waŋukatji.  
weː2 you go-past yam-dat comp-weː2 dig-a/p  
'We went to dig yams'.

pin-łu laji macumpa.  
you-erg kill kangaroo  
'You killed kangaroos'.

MM ati ŋa-łu laji macumpa.  
meat 1-erg kill kangaroo  
'I killed kangaroos'.

LM ŋali łuji.  
weː2 cook  
'We cooked'.

MM łuji ŋali.  
cook weː2  
'We cooked'.

LM kua-łu.  
creek-loc  
'By the creek'.

MM kua-łu ŋali łuji. kapani ŋali pini kua-łu marari-i.  
creek-loc weː2 cook hunt weː2 you creek-loc goanna-dat  
'We cooked by the creek. We hunted for goannas down by the creek'.

marari-i ŋali ŋka a-łu la-ji.  
goanna-dat weː2 go comp-weː2 kill-a/p  
'We went out killing goannas'.

LM ajari-ŋa ŋali-ji laji marari.  
one-adv weː2-erg kill goanna  
'We killed a goanna once'.

BB Lardie ŋka-ŋa ŋkara-a?  
Lardie go-past yam-dat  
'Lardie went for yams?'

MM Lardie ŋka-ŋa ŋkara-a.  
Lardie go-past yam-dat  
'Lardie went for yams'.

BB pini ŋka-ŋa macumpa-a-ja?  
you go-past kangaroo-dat-∅  
'You went for kangaroos?'
I went to kill kangaroos'.

'Then (you would) go back to camp'.

'We would go back to camp'.

'We would bring the kangaroo back and cook it by the creek'.

'We would cook by the creek. I would cut the (kangaroo) up into pieces and throw the skin, give the skin to the dogs'.

'My mother had me at Old Hammerly.

My mother used to

I used to go out a long way to play and

I would gather firewood, pultjurus, (and) I

(I) used to gather firewood and make a fire to burn at the entrance of the humpy
ilir-pia-ka.
cold-loc-∅
and lie by the fire in the cold'.

2. kupanuru-ŋati-ŋin nai. mu-Łu nai ini łaa.
old:man-intr-past I camp-loc I remain now
'I'm an old man.  I stop at home now.

bulja-aga nai ŋika-ŋa. ŋa-ci-ka ŋitia-ka nna bulja-pia nnu.
Boulia-all I go-past me-dat-∅ money-∅ here Boulia-loc lie
I went to Boulia.  My money is here in Boulia.

ŋitia-ana nai ŋika-ŋa kalpuru-ŋpa. ŋa-Łu ŋitia ŋiŋi maŋa
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

uṣantiji caja-ŋa-ka. ŋa-Łu maa-cua mani-nti ŋitia-ka
have old-adv-∅ I-erg food-dat:∅ get-with money-∅
there once.  I spent it on food (and) used it

uṭimaji-mpa.1 nai uṭimaji-ŋa ŋitia-a ŋa-ci-wa-ku.
consume-perf1 I consume-past money-dat me-dat-lig-dat
all up.  I have spent all my money'.

1-mpa could be sequential or perfect.
REFERENCES

ALPHER, B.

ARMSTRONG, R.E.M.

BLAKE, B.J.


1976a 'On Ergativity and the Notion of Subject: Some Australian Cases'. Lingua 39:281-300.


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BREEN, J.G.

1971 'Aboriginal Languages of Western Queensland'. *Linguistic Communications* 5:1-88.

CAPELL, A.


CROWLEY, T.M.


CURR, E.M.


DIXON, R.M.W.


DIXON, R.M.W. ed.

EGLINTON, E.
1886a [Yanda vocabulary], in Curr II:360-3.
1886b [Pitta-Pitta vocabulary], in Curr II:364-5.
1886c [Yalarnnga vocabulary], in Curr II:346-9.

FYSH, H.
1933 Taming the North. Sydney: Angus & Robertson. (Revised and enlarged edition 1950.)

HALE, K.L.

HOLTHOUSE, H.
1970 Up Rode the Squatter. Adelaide: Rigby. (Published in Seal paperback, 1974.)

KLOKEID, T.J.
1969 Thargari Phonology and Morphology. PL, B-12.
O'GRADY, G.N., C.F. VOEGELIN and F.M. VOEGELIN
Anthropological Linguistics 8/2.

O'GRADY, G.N., S.A. WURM and K.L. HALE
1966 Aboriginal Languages of Australia (A Preliminary Classi-
ification). Map, drawn by Robert M. Watt. Victoria, B.C.: 
Department of Linguistics, University of Victoria.

O'GRADY, G.N. and T.J. KLOKEID
1969 Australian Linguistic Classification: A Plea for Coordi-

PALMER, E.
1884 'Notes on some Australian Tribes'. Journal of the Royal 
Anthropological Institute 13:276-347.

PEARSON, S.E.
1949 In the Kalkadoon Country: The Habitat and Habits of a
Queensland Aboriginal Tribe. Journal of the Historical 
Society of Queensland 4/2:190-205.

ROTH, W.E.
1897 Ethnological Studies Among the North-west-central Queens-

SCHEBECK, B.

SHARPE, M.C.
1972 Alawa Phonology and Grammar. AAS 37, L15. Canberra: 
Australian Institute of Aboriginal Studies.

STREHLLOW, T.G.H.
(Reprinted from Oceania 12-14, 1942-44.)

SUTTON, P.J. ed.
1976 Languages of Cape York. AAS, RRS6. Canberra: Australian 
Institute of Aboriginal Studies.
TINDALE, N.B.

URQUHART, F.C.
1886  [Kalkatungu vocabulary], in *Curr* II:326-9.

WURM, S.A.

YALLOP, C.
GLOSSARY

KALKATUNGU - ENGLISH

HUMANS

'new born baby'
'baby/young child'
'child'
'boy'
'girl'
'boy nearing puberty'
'girl nearing puberty'
'boy after first degree initiation'
"  second  "  "  upariņci
"  third  "  "  kai̱apia̱nu
'young man'
'man'
'old man'
'girl after first degree initiation'
"  second  "  "  walinamaru
"  third  "  "  mupiamunia (see 'old woman')
'woman'
'old woman'
'widow'
'doctor'
'man of prowess'
'unmarried man'
'unmarried woman'
'stranger'
'friend'
'ghost, white man'
'white woman'

pirkipirkíjan (=bloodwood), uṟuma
piľapiľa
ŋaur
kaŋku, kujiri
wampa, wampaampala (CC), niŋa
kujiri
wampa
japariri
kalpin, kalpinaŋuru
juru (ergative stem -iti-)
kupa, kupakupa, kupauŋuru
mupiamunia (see 'old woman')
marpal
mupiamunia (see above), mucumucu
karajau, miŋara
manaŋaan
pipani
maŋawiŋa
juruiti, juriti
raŋkin, mawar, maawar
kacac, trimaŋa
jani
miŋiti
'policeman'  kanimajinci
'dead person'  pincil
'man' (as object of a woman's affection)  mitamita

**KIN** (See also §5.2.7.3.)

<table>
<thead>
<tr>
<th>Term</th>
<th>Equivalent</th>
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<td>'mother'</td>
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<td>'father'</td>
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<tr>
<td>'older brother'</td>
<td>japu</td>
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<td>'older sister'</td>
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<td>'younger sibling'</td>
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<td>'father's brother'</td>
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<td>'father's sister'</td>
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<td>'father's brother'</td>
<td>pitaata</td>
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<td>'mother's mother'</td>
<td>mucu(cu)</td>
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<td>'great grandparent or grandchild'</td>
<td>macara</td>
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Rare forms: manu ('mother'), nas ('elder brother'), jalaca ('mother’s brother'), nasjar ('mother’s sister').

**BODY PARTS**

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<td>muuntu mirimiri</td>
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<td>'face'</td>
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<td>'eyebrow'</td>
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<td>'blood'</td>
<td></td>
</tr>
<tr>
<td>'skin'</td>
<td></td>
</tr>
<tr>
<td>'fat'</td>
<td></td>
</tr>
<tr>
<td>'body hair'</td>
<td></td>
</tr>
<tr>
<td>'hairy'</td>
<td></td>
</tr>
<tr>
<td>'muscle'</td>
<td></td>
</tr>
<tr>
<td>'tendons'</td>
<td></td>
</tr>
<tr>
<td>'vein'</td>
<td></td>
</tr>
<tr>
<td>'heart'</td>
<td></td>
</tr>
<tr>
<td>'lungs'</td>
<td></td>
</tr>
<tr>
<td>'liver'</td>
<td></td>
</tr>
<tr>
<td>'kidneys'</td>
<td></td>
</tr>
<tr>
<td>'bowels/intestines'</td>
<td></td>
</tr>
<tr>
<td>'milk'</td>
<td></td>
</tr>
<tr>
<td>'faeces'</td>
<td></td>
</tr>
<tr>
<td>'urine'</td>
<td></td>
</tr>
<tr>
<td>'sweat'</td>
<td></td>
</tr>
<tr>
<td>'saliva/phlegm'</td>
<td></td>
</tr>
<tr>
<td>'nasal mucus, a cold'</td>
<td></td>
</tr>
<tr>
<td>'pimple'</td>
<td></td>
</tr>
<tr>
<td>'lump'</td>
<td></td>
</tr>
<tr>
<td>'boil'</td>
<td></td>
</tr>
<tr>
<td>'pox'</td>
<td></td>
</tr>
<tr>
<td>'menstruation'</td>
<td></td>
</tr>
<tr>
<td>'copulation'</td>
<td></td>
</tr>
<tr>
<td>'sore'</td>
<td></td>
</tr>
<tr>
<td>'scar'</td>
<td></td>
</tr>
<tr>
<td>'wound'</td>
<td></td>
</tr>
<tr>
<td>'pain'</td>
<td></td>
</tr>
<tr>
<td>'cramp'</td>
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<tr>
<td>'corpse'</td>
<td></td>
</tr>
<tr>
<td>'ghost'</td>
<td></td>
</tr>
<tr>
<td>'name'</td>
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</table>

**ANIMALS**

<table>
<thead>
<tr>
<th>Animal</th>
<th>Piki</th>
<th>Kulaajaŋu</th>
<th>Kincə</th>
<th>Karau</th>
</tr>
</thead>
<tbody>
<tr>
<td>'meat'</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>'male'</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>'female'</td>
<td></td>
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</table>
### REPTILES, FISH, ETC.

<table>
<thead>
<tr>
<th>English</th>
<th>Ngapraan</th>
</tr>
</thead>
<tbody>
<tr>
<td>'goanna'</td>
<td>marari, kunakaaca, jurutu, julara,</td>
</tr>
<tr>
<td></td>
<td>(informants unable to distinguish</td>
</tr>
<tr>
<td></td>
<td>species consistently)</td>
</tr>
<tr>
<td>'prentie'</td>
<td>manpu(ru)pari, raniraan</td>
</tr>
<tr>
<td>'Johnson crocodile'</td>
<td>juțjuțu</td>
</tr>
<tr>
<td>'lizard'</td>
<td>îlîpari</td>
</tr>
<tr>
<td>'bearded dragon'</td>
<td>wakkaatu</td>
</tr>
<tr>
<td>'blue tongue'</td>
<td>pankara, jumparara</td>
</tr>
<tr>
<td>'lizard similar to blue tongue'</td>
<td>miŋnaŋana, japunkuliri, waŋkata</td>
</tr>
<tr>
<td>'unidentified types of lizard'</td>
<td>milumanu, uțața, waŋatu, miŋati</td>
</tr>
</tbody>
</table>
'frilled lizard'
'gecko'
'snake'
'types of snake' (attempts at identification inconsistent)
'death adder'
'carpet snake'
'black-headed python'
'water snake'
'crayfish'
'mussel'
'shell'
'tadpole'
'frog'
'fish'
'fin'
'scales'
'yellow belly'
'black bream'
'boney bream'
'type of small fish'
'perch'

'BIRDS'

'bird'
'beak'
'wing'
'claw'
'feather'
'emu'
'emu feather'
'eaglehawk'
'kitehawk'
'white hawk'
'chickenhawk'
'eagle'

waratañujan
panțapanața (often given as 'wood adder', a species of gecko)
țuar, kuntara, piçu
țakujan, milkira, japiņṭici, mańan, cułka
muńụ
pari-pari, առակատամարայուն
mapamacin
nuļu-nuļu, juṭur (also given as 'python', cf. 'crocodile')
mańakatu, kańćar (also given for 'scorpion')
țampion, cuńci, muļu
kucuru, ḍakacu, wantal, jarkalaan
cikara, cikili(cili), wantal (see preceding entry)
unuțutu
pakuku, utupa ('green tree frog'), caraļku, cawan ('big brown frog'),
țarañana ('little, green frog'),
upun ('big, brown frog')
wakaři
țirin
pirkipirki(jan) (='bloodwood')
miaraan
mańkaļa, kalkań[sic], kalkańu
mirikan
uļu
țakuru

turuń
ańța
junițu
țapantu, piku
kuți, pujun, purņu
utinjar
țiliara
uļujaan, uļujaun
picuțu, kacapi
kulnumari
mucuń
kumaintuicir
'crow - black'
'pelican'
'spoonbill'
'diver bird'
'jack diver'
'waxbill'
'brolga'
'crane'
'waterhen'
'dotterel'
'kingfisher'
'kookaburra'
'duck'
'wood duck'
'black duck'
'whistler duck'
'owl'
'mopoke'
'dove'
'plumed pigeon'
'night pigeon'
'flock pigeon'
'brown pigeon'
'type of pigeon'
'plains turkey'
'corella'
'white sulphur-crested cockatoo'
'galah'
'pee wee'
'magpie'
'budgerigar'
'parrot'
'willie wagtail'
'finch'
'chook'

wakan, ukan, wakala, waakala
walkiripari, tulkiripari (Roth)
pija-piña
nití
kala-kala
piůtu-piůtu
kuwaitur, mirikunpana, waŋanulja, tankin puraŋţa, puralku
kicicipapa
piŋţil-piŋţil
malaŋa, caampa
markula (Urquhart - O'Reilly)
calunkur, carunkul
rantani, karapa (unspecified types rather than generic term)
maŋamitaaka, kuŋampa, ḩurupari, ḩalawal
maŋawira
kipuŋu, cipuŋu
miltiijaun
kurkurku, jatišara, mukaŋka
uluğuру
urimpitu
kulumari
curuali, kuraku
uriŋa, rapaci
kulupaci
parkamu, calalu
murumaŋi, kuluta (Urquhart - O'Reilly)
jauira, pirimpalaan marapunu
kilauru, kil-a-kila
kurićicicin
kuraŋapu
cimpanuru
mulpiŋ('green with beads around neck'), palpaacu ('green parrot with red wing'), pulunpulun
kinti waŋuwaŋura, cukucuku
INSECTS, ETC.

'insect-like creature'
'spider'
'redback spider'
'fly'
'blowfly'
'maggot'
'bee'
'beeswax'
'honey'
'wasp'
'mosquito'
'butterfly'
'hairy caterpillar'
'centipede'
'ant'
'meat ant'
'black ant'
'white ant'
'bull ant'
'antbed'
'swarm'
'louse'
'flea'
'locust'
'witchetty grub'
'unidentified types of grub'
'worm'
'beetle'
'scorpion'
'grasshopper'

FLORA

'tree'
'root'
'stump'
'log'
'bark'
'limb'
'leaf'
'tea leaf'

icajincir ('biter'), ulu
kupu
minci kurikuri, miingeni kurikuri, tunpultu kurikuri
jumuriri, jumururu
mienga, ununu (also given as 'bee')
ciku-ciku, waŋka
maŋu
umud
ikan
wanimaŋu
miqara, miqaa
kulaŋapu
ciapaŋa
ıtiri, ıtii
ıti
ıti
waŋti
ıra
muŋụn
micampu
kıti-kíti
ıtụ
tırunpu
tıri-tıri
kapaŋa, kapaa
maŋkuți, maŋkuțatipula, puŋpaŋiŋu
tılu
tıran, juŋkuŋuŋu
kaŋtar (also given as 'crab')
pinçiçiri

kunku
tıri-tıri
kaŋtanmaŋu
tırunu
tıka, taka
majanakaŋanaka
puŋiŋi
ŋultan
'stick'
'rotten wood'
'needle bush'
'firewood'
'fork'
'flower'
'type of fruit'
'wild fig'
'seed'
'nut'
'foliage'
'new growth'
'gidyea tree'
'gidyea flowers'
'unidentified species of Eucaalyptus'
'coolibah'
'bean tree'
'mountain gum'
'bloodwood'
'suplejack'
'silverleaf box'
'mulga'
'beefwood'
'tea-tree' (Melaleuca)

'loose bark of tea-tree'
'corkwood'
'prune tree'
'wild orange'
'river wattle'
'myrtle'
'lancewood'
'ironwood'
'carbeen'
'whitewood resin'
'roly-poly'
'prickly bush'
'lignum bush'

kunka
raputu
ţanpuru, ţunkuru
ucan
răncă, pălţa, ăali (possibly ľaľi)
warinca, pienţikali, wiriri, ukara, kuţi (see 'feather')
kańtu
walińcańu
mińti (compare 'eyea')
kucanpăru (unidentified type of edible nut)
kuńala
mungumunku, cipiu
pacańa, ţilimari
muki
nantinu
pińpiri, makańu
ciškaľan, cuťa, wacu
puţa-puţa
pirki-pirki
alkar
karńaa
urińa, miawali
wacara, malaľampi, ţintiparia
qurńunu (also tea-tree bark and certain things made from this), mirńci, munkalkara

pucunpucun
cuťu
cińkańu
inpukuńu, waćaci
kaľaca
purkulu
kialparia (= 'east', = 'chestnut' (of horses))
ińa pulumapuluma (also given as 'coolibah')
ucaawa, uti, pikańi
kunańcar
qumpulu
makar
riculaawa, ţanita
'split-eye'
'bush tomato'
'vegetable food'
'yam'
'type of yam'
'plain yam'
'blackberry'
'turpentine bush'
'saltbush'
'grass'
'mitchell grass'
'grass seeds'
'spinifex'
'burr'
'reed'
'paddy melon'
'gooseberry'
'kanguberry'
'pigweed'
'poison'
'drug'
'unidentified types of tree'
'unidentified type of plant'
'unidentified types of bush'

SKY, TIME, WEATHER, WATER, EARTH

'sun' (also 'day')
'moon' (also 'month')
'crescent moon'
'star'
'Morning Star'
'Southern Cross'
'Seven Sisters'
'Milky Way'
'dark'
'to grow dark'
'sunrise'
'shade'
'breeze'
'wind'
'willy-willy/dust storm'

'nuulu'
'mułuku'
'maa'
'ŋkaa'
'makura, ŋata 'kind of makura'
'kankuji'
'jalpuŋu'
'maŋtjuŋuŋu'
'alampa'
'kaŋir, kaŋir, cilkurujan, cikari, piŋa, punuŋu, itir'
'wacin (also 'spine, bristle')
curu'
cimpara
'iŋpu, pulura
'mınçaruma
'ŋuanunu
'ŋaju
'kaŋa
'palpir (a substance used to drug fish)
'ukaŋtaicangu
'cinpun, pipiŋ, paŋulanci, ţatunu, kaŋtaaku, inkaŋkaŋjaŋu, campuAca, kuricipalka
'piŋu-piŋu, pupuci, pirimpiri

piŋcamu, waŋaka
'tuqial
'tuqial putu
'cirka, miŋti ('eyes'), puŋuŋu
marapuŋkaŋaŋi
'kanamaralakia, kuŋaŋkułaajuŋu
markajaranu
waŋu-waŋu
waŋa, waŋamakal
miwaŋutati
mpampaiŋci piŋcamu
waŋua
kuŋaŋu
unuŋkaŋi
wampati, markamarka, waripirian
'storm'
'hailstones'
'thunder'
'lightning'
'sky'
'mirage'
'heat haze'
'cloud'
'red cloud'
'storm cloud'
'rain'
'hail'
'water'
'dew'
'mist'
'rainbow'
'river, creek'
'tributary'
'flood'
'swamp'
'ripples'
'soak'
'spring'
'dirty' (of water)
'upstream'
'downstream'
'rock ledge, large flat stone'
'bank of river'
'sand (river)'
'mud'
'muddy'
'stone'
'gravel'
'hill'
'antbed'
'cliff'
'dust'
'ground'
'camp'
'claypan'

juṟapirī
kaṟakucunu
maṟapanka, ṭuṅka, ṭuṅula
maṟapanka, janpīri, janpirian, ṭuṅka
mana-mana
paṇṭu
jalpaaca, juruma, curkulu (once only in a song), pudula
nuṟuṟulu (once only in a song)
irān-iran
kuu, ʧapi-ʧapiku tä ('light rain'), pilī ('light rain') miltī ('raindrops')
karaḵucunu
kuu
kaca, wilta
ʧiraṭira
jaṟualu
kua
junṭu
ʧuura
ʧanpājanpa
jamparjampar
ipuraan
kalaatī
cuṇṭa
maṇṭiṣa
piciṇṭa
ʧumpuṇṇu
miṇci, jampi
kuu, kikawaṟa
paṭa
paṭanaṇuru
ntia
ručulu
ntia, warapantia, jaliṟa
micampu
micaḷaru
kaṟukara
muu
muu
kuKarāṭiri
<table>
<thead>
<tr>
<th>English</th>
<th>Kalkatungu</th>
</tr>
</thead>
<tbody>
<tr>
<td>'track'</td>
<td>waṟuwaru</td>
</tr>
<tr>
<td>'mound'</td>
<td>wañña</td>
</tr>
<tr>
<td>'heap'</td>
<td>muṭu</td>
</tr>
<tr>
<td>'ridge'</td>
<td>purku</td>
</tr>
<tr>
<td>'top of a hill or big rock'</td>
<td>kaŋtamaŋtu</td>
</tr>
<tr>
<td>'hole'</td>
<td>ŋtuu, ŋaŋtuu, ĺapulaŋpu</td>
</tr>
<tr>
<td>'cave'</td>
<td>wañña, kurkiŋa</td>
</tr>
<tr>
<td>'red ochre'</td>
<td>japaŋa, kuri, mila, miتجا</td>
</tr>
<tr>
<td>'yellow ochre'</td>
<td>pari</td>
</tr>
<tr>
<td>'kopi'</td>
<td>pirakaŋa</td>
</tr>
<tr>
<td>'white shell'</td>
<td>cikilići, cikara</td>
</tr>
<tr>
<td>'paint'</td>
<td>kapuru</td>
</tr>
<tr>
<td>'salt'</td>
<td>miļu</td>
</tr>
<tr>
<td>'black paint'</td>
<td>umaaka</td>
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</tbody>
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### CAMP

<table>
<thead>
<tr>
<th>English</th>
<th>Kalkatungu</th>
</tr>
</thead>
<tbody>
<tr>
<td>'camp'</td>
<td>muu</td>
</tr>
<tr>
<td>'humpy'</td>
<td>walipiŋa</td>
</tr>
<tr>
<td>'house'</td>
<td>kunti</td>
</tr>
<tr>
<td>'windbreak'</td>
<td>waļu-waļu, waļuwaļua, unkuřiću</td>
</tr>
<tr>
<td>'single men's camp'</td>
<td>maŋtuwaŋa</td>
</tr>
<tr>
<td>'single girl's camp'</td>
<td>maŋtakaŋu, lampara</td>
</tr>
<tr>
<td>'bed'</td>
<td>iŋapi, calfku</td>
</tr>
<tr>
<td>'rug, blanket'</td>
<td>kulapuru</td>
</tr>
<tr>
<td>'area away from the camp'</td>
<td>waļuŋkar 'right outside'</td>
</tr>
<tr>
<td>'ceremonial humpy'</td>
<td>jaŋtu lamira-mira</td>
</tr>
<tr>
<td>'initiation area'</td>
<td>ŋaļtuŋu (possibly not a Kalkatungu word)</td>
</tr>
<tr>
<td>'corroborree ground'</td>
<td>macuru</td>
</tr>
</tbody>
</table>

### FIRE

<table>
<thead>
<tr>
<th>English</th>
<th>Kalkatungu</th>
</tr>
</thead>
<tbody>
<tr>
<td>'fire'</td>
<td>ucan</td>
</tr>
<tr>
<td>'firewood'</td>
<td>ucan</td>
</tr>
<tr>
<td>'sticks for making fire'</td>
<td>jaŋtaca, Ʉurku</td>
</tr>
<tr>
<td>'blaze, flame'</td>
<td>kuɾalii, aŋiŋulu</td>
</tr>
<tr>
<td>'smoke'</td>
<td>puɭu, juŋarka</td>
</tr>
<tr>
<td>'coals'</td>
<td>kapu, wamu</td>
</tr>
<tr>
<td>'ashes'</td>
<td>Ʉunun, pumpa</td>
</tr>
<tr>
<td>'to burn, cook'</td>
<td>Ʉu-</td>
</tr>
<tr>
<td>'hole for cooking in'</td>
<td>waṯi</td>
</tr>
<tr>
<td>'to burn' (V₁ and V₉)</td>
<td>manii</td>
</tr>
</tbody>
</table>
FOOD

'vegetable food'  maa
'meat'  ati
'beef'  miņa
'wad of chewing tobacco or pituri'  kuka

WEAPONS, TOOLS, ETC.

'swag'  waļurwaļur
'spear'  juku, cilka
'shaft of spear'  ɲirimu
'head of spear'  ʧampira
'barb of spear'   иност, ɲatamujan
'spear thrower'  julman, wamira, ulmun
'hook on spear thrower'  십시오, karimu
'nulla'  ʧalimpi, ucauca (also heard as ʨicawica)

'boomerang'  jalkapaçi
'fluted boomerang'  ʧaruru
'hook boomerang'  ʨicucuku, ɲtajan, ɲtamari, cimpaleta

'shield'  ʨi, jampuru
'tomahawk'  warampaña, maria, muanimal
'knife'  ʨanka, pucini, wirinta, kaqanu
'ceremonial knife'  ujin, wiin, puniun
'chisel'  ʨumpa
'stick'  kunka, ʨular, wapu, warawara, canpara
'yam stick'  ʨulanara
'pump' (decoy device for attracting birds)  jaļpi

'emu net'  cintalura
'noose on stick' (for catching birds)  puļulu
'posts of emu net'  mukuari, kaŋama (also 'hairnet'), ucula
'net'  pintałuru
'fish trap'  waļuku
'fish hook'  ʨuriquri, wanika
'rope'  kani
'knot'  kuila, pila, ʨaku, rumpa, macamila ('lower stone')
'grindstone'  cuņu
'oolaman'  naŋkur
'oolaman for carrying baby'
'dilly bag'

'water bag'
'message stick'
'roarer, whirler'
'toy'
'spin ball toy'
'ball'
'throwing stick toy'
'walking stick'
'hoop'
'corroboree'
'song'
'song sung for dead person'
" " " to get a woman'
'type of song (to get a woman)'
'blanket'
'string for binding hair'
'cross stick headdress'
'netted headdress'

'headband'
'nosepin'
'necklace'

'chest ornament'
'feather ornament worn on arm'
'wrist band'
'belt'
'phallocrept'
'lap-lap'

'body painting'
'cricket pads'
'double broom' object
'kangaroo teeth ornament'
'death bone'
'string on death bone'
'receptacle for blood'
'totem'
'deity'

'bogey man'

puŋkwarį, ḏajatą, iŋkiiŋkí, paiki
(English?), ńiti

upaŋunu
juŋwați
piri-piri
wanintijicir
puču-pucu
ćiți
puŋpu, puŋpuku
canpara
kuṭakutaała
warma, kiža, ķamintamira

warma
juṯuru
kurimi

jamānaři
kulaŋuru
piŋapița
puŋucur

kantamaŋa (also given as 'net' in general)
miri-miri, puAurka, karuwaḷi
puŋrupurku, iciŋaṭa
kuŋupa ('grass'), mitamiku ('possum
or wallaby fur necklace or armlet')
puliŋi

wintalaŋa, uŋcaja
maAri, puŋcupu
juṟutu, juŋturu
puŋcini ('shell'), jamara
munaru, watiľu ('possum skin'), ulaka,
țunka wiŋaka ('grass')

maranja, ḏuụtu (markings in general)
pujumući

wanpa
iranaŋkai
daŋpiŋa, ciriku
uku (Roth)

upir
tıramu

ciri (proper name), ķanțikuju (proper
name)
mukajjarńu
EUROPEAN ARTEFACTS, ETC.

'town' țaun
'house' kunti
'doorway' aŋta
'hotel' paplikaatu
'car' cuťu
'money' ńťia
'hat' cika-cika, cirka-cirka
'dress' kaun
'shirt' cata, cuari, caar
'trouser' taraațu, taraațir
'boots' panti-panti
'saddle' ńțapî, uțantijicîr (also 'chair')
'stirrup' mitan-mitan, juuntijicîr
'billycan' pilikan
'axe' warampața
'knife' ńaipu
'aeroplane' kacapi
'tobacco' ńțumajicîr, makini
'riflê' juțuțu, ții
'tea' kalija
'grog' kiki
'cake' pulankati, pulankiti
'wheel' kuța-kuțaali
'bread' maanu
'pillow' mațapa
'fence' parîkiri
'o'clock, watch' pițcamuțanjańu
'paper' ńuruńu, pîipa
'white man' jâpi
'white woman' miğiși, wacikani
'butcher' atînci lajîncîr
'policeman' kanîmajîncîr
'pannikin' panîkin
'handkerchief' anîka
'glasses (spectacles)' kilata
'bed' ńțapî
'swag' ńuruńu (tea-tree bark)
'gun' puli-puli țajîmântijicîr
'stew' putu
'road'
'soap'
'writing'
'pen, pencil'
'a chair'

PLACE NAMES

'Buckingham (station)'  
'Bushy Park'  
'Chatsworth (station)'  
'Clonourry River'  
'Devoncourt'  
'Eulola (station)'  
'Port William'  
'Granada (station)'  
'Hamilton'  
'Kajabbi'  
'Kamilaroi (station)'  
'mountain near Dajarra'  
'Leichhardt River'  
'Lorraine (station)'  
'Old Hammerly (station)'  
'Quamby (station)'  
'Stanbroke (station)'

DESCRIPTIVE

'happy'
'jovial'
'clever'
'mischievous'
'careful'

'insane'
'tired, weak'
'noisy'
'quiet'
'shy'
'sulky'
'belligerent'
'drunk'
'greedy'

usahaan (V₁)
pićcan
japacara
makaći pićcara
ciţanma (V₁) ('take care of, watch out for'), ciţanmati (V₁, reflexive) ('be careful')

nuqwi, njura njuruqatiti, mutwiti
manu, macuri
ciňkujan, tarkanta
nuqur, puru, wakańiri
wakańti, mutuna
puarı, njuupi ra
ar kunaa
kuujan, miši wakini (V₁)

nuqyi
<table>
<thead>
<tr>
<th>English</th>
<th>Malayalam</th>
</tr>
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<tbody>
<tr>
<td>'untruthful'</td>
<td>maiṭi</td>
</tr>
<tr>
<td>'naked'</td>
<td>majal</td>
</tr>
<tr>
<td>'ready'</td>
<td>ḫaana</td>
</tr>
<tr>
<td>'alone, of one's own accord'</td>
<td>ḫaṅkaṇa</td>
</tr>
<tr>
<td>'bald'</td>
<td>ciranciran, kaṅṭa maḷapala</td>
</tr>
<tr>
<td>'grey-haired'</td>
<td>muupari, katuḷaan</td>
</tr>
<tr>
<td>'blind'</td>
<td>mucupari</td>
</tr>
<tr>
<td>'blind in one eye'</td>
<td>miḻṭajar</td>
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<tr>
<td>'deaf'</td>
<td>ḫiṭakajaranati (V₁)</td>
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<tr>
<td>'ignorant of'</td>
<td>ḫunkaṇu</td>
</tr>
<tr>
<td>'satiated'</td>
<td>maanti</td>
</tr>
<tr>
<td>'dumb'</td>
<td>maḷi piliṭati</td>
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<tr>
<td>'hungry'</td>
<td>jāṛikajan, jāṛikajanati (V₁), paḷi mani, pujuja</td>
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<tr>
<td>'thirsty'</td>
<td>putujan</td>
</tr>
<tr>
<td>'pregnant'</td>
<td>kuntuṇu, kaṅṭaaṅka, puraṇka</td>
</tr>
<tr>
<td>'Lame'</td>
<td>cajaṇu (= 'former', = 'old' (of persons, animals, objects))</td>
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<tr>
<td>'old'</td>
<td>ḫuntuṇaṇa</td>
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<tr>
<td>'middle-aged'</td>
<td>jāṅkajanaṇa, jāṅkajananati (V₁), paḷi mani, pujja</td>
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<tr>
<td>'young'</td>
<td>kacakuḷu, kūṭakulu</td>
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<tr>
<td>'fat'</td>
<td>miṟaṇan, kūṭalijan</td>
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<tr>
<td>'lean, thin'</td>
<td>mani, wiraṟuṅkali, jalaura ('poor in condition, sickly')</td>
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<tr>
<td>'tall'</td>
<td>ḫalaṇuṇu</td>
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<tr>
<td>'short'</td>
<td>mūraṅkula</td>
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<td>'ill'</td>
<td>jalaṟura, aṅka (V₁), ḫarajan ('ill as a result of having been &quot;sung&quot;')</td>
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<tr>
<td>'weak'</td>
<td>maṇu</td>
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<tr>
<td>'drowsy'</td>
<td>w坳ruḷjan</td>
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<tr>
<td>'strong'</td>
<td>gaṇa, gaṇajan</td>
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<tr>
<td>'well, lively'</td>
<td>jaṉacara</td>
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<tr>
<td>'alive'</td>
<td>ḫiḷi</td>
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<tr>
<td>'dead'</td>
<td>uḷi ('to die'), waṟaṛiṭati (&lt; waṟa-ṛiṭiṭati)</td>
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<tr>
<td>'itchy'</td>
<td>kiapi, ciapi</td>
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<tr>
<td>'frightened'</td>
<td>iḷiṇnaan</td>
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<tr>
<td>'wounded'</td>
<td>kakian</td>
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<tr>
<td>'sore, chafed'</td>
<td>piripiri</td>
</tr>
<tr>
<td>'good'</td>
<td>puǰur</td>
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<tr>
<td>'correct'</td>
<td>unaruur</td>
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<tr>
<td>'bad'</td>
<td>ḫuṇumpiri, ṭiṅkįṭiṅkįṇ</td>
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<tr>
<td>'hot'</td>
<td>puǰur</td>
</tr>
<tr>
<td>'oold'</td>
<td>iliṟ, muntoṟuntu</td>
</tr>
<tr>
<td>'big'</td>
<td>jaun, jaṇmaṇu (rare)</td>
</tr>
</tbody>
</table>
'little'
'heavy'
'light'
'deep'
'shallow'
'long, tall'
'short'
'wide'
'narrow'
'straight'
'crooked, winding'
'round'
'step'
'flat'
'smooth'
'rough'
'sharpened'
'blunt'
'soft (to touch)'
'hard (to touch), firm'
'wet'
'dry'
'fast'
'slow'
'hard'
'soft'
'open'
'shift'
'tight, stuck'
'clear, bright'
'clear (of water)'
'dirty'
'full'
'empty'
'new'
'old'
'high'
'low'
'torn, leaking'

kaca, kacakulu, katakulu, tapi, tapikuла
&awa, &awajan
marumaру
tantru
munkun
ulkuru
muraunlockula
pinta
cumpun, kali, calka, calkani, calkiği
footuku
kuuku, kuukuți
uriciri
pantru, cuk, micalaru ('steep hill-side')
tala, tura
cuçuur, marumaɾu, maruçu
pirkipirkian
macarka
muamu, mutu, iŋkia
piliği
tail
kuujan, ɨ[Testo: 'kuujan, ɨlil, ɨluatili'], mujuta
puunaan, puuntu, puna, ɨlajan
(of current)
raaçu, rçu
&awa, &awajan
pilimişli
piŋta (cf. 'wide')
cumpunati (V₁)
puŋti (V₁)
mpampaınči
pulilnu
muujan, paṭajan, paṭanapuru
qamicunpar
pujuma
iṣaçu
cajaçu
juμujan, mica (of hill) (cf: micalaru 'steep')
piir
kilian
'sour'
'bitter, salty'
'poisoned'
'sweet'
'rotten'
'to smell' ($V_1$)
'ripe (of fruit)'
'tough (of meat)'
'fresh (of food)'
'bare, cleared'
'scrubby'
'bushy'
'shiny'
'rotten (of wood)'
'right'
'left'
'in small pieces'
'black'
'white'
'red'
'green'
'yellow'
'chestnut (of horses)'
'piebald'

VERBS

Position
'remain'
'be present'
'be absent'
'sit'
'stand'
'lie'
'sleep'
'stretch oneself'
'curl up, coil up'
'bend' ($V_1$)
'sit with legs crossed'
'squat'
'stoop, crouch, bend over'

kulpurujan
kaļia
mpuṇaŋaŋan
nuuruŋan, riiŋku
mpuu
mpuṭi
mpuṇu
wiŋaru
iŋalŋu
malapala, manu
curuŋan
ŋuruļu
miŋca, miŋca
tuŋkarpaŋan
unaṟu (also = 'correct') tuṯuku
kaluṟuŋu
tapikuḷa
macin, marcin, uмаŋca, umaŋcamaŋca, umaaka
puḷupuļu, puḷuwaŋa
kurikuri (kuri 'red ochre')
jalapujaŋapu
paruparu (paru 'yellow ochre')
kialpapr (east)
wamaṭṭiŋaraŋ

ini
ini
uti
ŋaṇaṭati
ŋa, ņaŋpiŋaŋpi (poss ņaŋpi)
ņu
ņu wamiŋaŋan 'lie asleep'
kula, cuAcanticama
tuṃaṭi
kuṭuŋkuṭaṭati
ini niŋaṭana
ini pincanaŋpiŋaṇa
uru
'hang down'  kañcali
'lean against'  munṯaṇi
'to hide oneself'  cuṟuṭati, cuḷuṭati
'take up a distant position'  jarkaṭati
'wait for'  miliṭiṇaṇi
'lie around, be scattered'  ṭaṇći, piṭaṇći

Motion

'go walk'  iṇka
'go away, depart'  kaanta, paca ('take leave of someone' (locative))
'come'  munṭiṇka, iṇka nauṇa ('walk hither')
'return'  iti, naṇcumuṭiṇati
'run'  pakapakama, ṭulaṭula
'hurry'  ṭuna
'fly'  ṭuna
'blow (of wind)'  ṭuna
'flow'  ṭuna, kaanta
'go up, climb'  juu, juunți (also 'ride a horse')
'rise (of flood)'  aṇṭaju
'go down'  pia
'go in'  aṛa (also 'set (of sun)')
'come out'  waǰara (also 'rise, get up')
'emerge from a hole'  nṭuucama
'crawl'  uluru, pukai, pukuai, uṟu
'swim'  kaṇṭaara, kaṇṭara
'dive'  njuji
'fall'  kaṇṭa ititi
'fall headlong'  nampuṭati
'disappear'  pikaṇi
'creep up to'  aṇṭauṟu
'sneak along'  palaṭatl, palai
'slip'  wamaṭuna, wamaṇkaaḷi
'go across'  wakini
'turn around' (V₁)  cuṇpa
'jump'  cuṇpa
'hop away'  wani
'play'  waninti
'play with'  aṭiī
'to alight'  aṇṭamuṭtati
'to crowd together'  nukuṭati
'to cluster'
Hunting and Gathering

'collect, gather'
'dig'
'to follow'
'to sneak along'
'follow, chase'
'creep up on'
'hunt'
'to take hunting'
'flush'
'look for'
'find, meet'
'catch, grab'

Induce position

'put down, place'
'knock down'
'drop'
'put into, insert'
'take out of'
'hide something'
'to put at a distance'

Induce motion

'take'
'take with one'
'steal'
'send, release, let go'
'send back'
'bring'
'bring back'
'get'
'carry on the shoulders'
'carry on the back'
'carry in a coolaman'
'push'
'drag'
'throw'
'gallop (a horse)'
'trot (a horse)'
'to shake' ($V_t$)

aŋpa, unja (also 'graze')
waŋukati
waŋinti ($V_t$), waŋti ($V_1$)
wakaŋani
ŋaima, ŋai
rapama
kapani, ima
kapaninti
mai
ŋkuma, cinti, ŋantama
ŋantama
ŋulurma

aal, ații, makaŋatii
kaŋta ʒiʒi, kaŋtapuni, ɲiŋkaŋ
ŋuŋinti
arantii
cia, ɲųii
curupuni, culupuni
jarkapuni

manii, ʒunți, muma
unpi
ŋița
ŋka, ŋkaımpaki
ŋapcumuŋipuni
iținti, waŋinti
iținti
manii, munma, muma
ŋaŋima
karinti
țatinti
aŋka munćupukaŋti
pukaŋti
ițiti, țikiiti
ʒunți
curkaŋtunți
muɾi manaŋi
Affect

'make, do'
'fail to do, miss'
'build, erect'
'own, possess'
'take care of'
'allow'
'quieten'
'win'
'to leave relinquish'
'hit, kill'
'fight'
'hit with a missile'
'kick'
'consume entirely, massacre'
'strangle'
'tread on'
'hug'
'throw'
'spear, stab'
'break'
'chop'
'cut through'
'cut the surface'
'butt'
'grasp'
'to paint (oneself)'
'crush up, pound, cut up into small pieces'
'to flatten'
'grind'
'clean seeds'
'squeeze'
'sharpen'
'rub, clean, wipe, whet'
'to stroke (e.g. cat's fur), to smooth'
'to straighten'
'to stretch'
'cover'
'bury'
'dig up'
'dig'
'shut, block'
'pour'
'fill'
'pile up, gather up'
'shut'
'to put a hole in'
'widen'
'light a fire'
'to burn' (V₁ and V₄)
'put a fire out'
'to warm'
'to cool'
'to wet (of rain), to rain (on)'
'to wet'
'to wash'
'to wash oneself'
'to shut in'
'ward off'
'restrain someone'
'to tickle'
'to hurry someone up'
'to skin'
'to gut'
'to cook, to burn' (V₄)
'tie'
'sew'
'to give'
'to exchange'
'to pay'
'to pay back'
'to divide up'
'to lose'
'to feed up'
cumpunpuni
aṇīŋka
aṇīŋkainci
n̄ukunpuni, mūṭupuni
an̄īŋakama
an̄īŋama, ṑ̄ūuma
pīŋṭapuni
an̄īŋat̄u, jant̄u, makātaat̄i
manii
wiīma
jumupuni, pujurpunii
ilirpunii
un̄īa
cīru
carālma
kar̄īti
an̄īŋakama
q̄ant̄i
mūŋt̄unt̄at̄i, kama
kīlakikiLMama
̄turkanaNt̄i
waku ̄la, patint̄i
ŋ̄ūī, ununtuI
̄t̄ū, pāṭupuni
kanimama
ŋ̄kaa
api
an̄īt̄i (also 'to give accidentally' as in 'x gave y a cold')
mun̄ći
jurunt̄i
maĪṭapuni
uṭijakapi, wâlpaḷa
putan̄it̄i

Conditions and activities of the body

'an̄ka
'jakapiti
'kulpuRujan
'aCcītu inci
'kakian
'uCcīnta
'pain'
'to shiver'
'to have a cold'
'to get a cramp'
'to be well'
'to cure'
'to convalesce'
'to die'
'to drown'
'to be born'
'to have a baby'
'to wear'
'to be intoxicated, faint'
'have a headache'
'see'
'wink'
'sniff'
'pant'
'cough'
'sneeze'
'open the mouth'
'blow on'
'suck'
'bite, chew'
'eat, drink'
'kiss'
'lick one's lips'
'poke out one's tongue'
'have the tongue hanging out (of dog)'
'swallow'
'vomit'
'spit'
'to pick up in the mouth'
'to fill oneself with food'
'to be full of food'
'scratch oneself'
'shake hands'
'uninate'
'defecate'
'copulate'

ŋkiki
majañcanti
manujan, ŋnunkuraan
ciţamanmanatì
djapacara
djapacarapuni
djapacaratì, maŋanti
ulì
djala ɾìtì (lit. 'break one's neck')
mìtìtìatì
piŋapiɭa əti
ənài
mìtì wakini, mìtìwakini, mìtì tìti
əŋka kàntàa, kàntàŋkìki (noun)
ənài
mìtìmutì
ñika,  Ła
waïra cuŋpa
ŋaka, .want,  Łaaka
ciŋkur la
àntanta
pupula
piŋtìmpì, puputi
iça
ərì
aka (Vt), akatì (Vì)
malìmpùti
malì muntunpaŋtì
malîkaŋcalì
rûkupì
ñaɾkuma, ulmu
campar lyhì
àŋtampùti
puṭu àŋtí
puṭumaŋtì
pìnçiì
dulûrmaŋù
derkai əka
kunaŋta
mpù (Vt), mpùti (Vì)
Vocalising and thought

<table>
<thead>
<tr>
<th>English</th>
<th>Yaŋaalu</th>
</tr>
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<tbody>
<tr>
<td>'language'</td>
<td>punpa, pati, panti</td>
</tr>
<tr>
<td>'tell'</td>
<td>punpa</td>
</tr>
<tr>
<td>'talk, tell, ask'</td>
<td>pata, ṭtii, ṣaŋaŋaĩi</td>
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<tr>
<td>'converse'</td>
<td>niiŋaŋka</td>
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<tr>
<td>'scold'</td>
<td>patati</td>
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<tr>
<td>'reprimand'</td>
<td>macani țuma</td>
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<tr>
<td>'argue'</td>
<td>kunpi, mpaa, mpaați</td>
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<tr>
<td>'swear'</td>
<td>ṭuŋa</td>
</tr>
<tr>
<td>'cry'</td>
<td>ŋanti</td>
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<tr>
<td>'bark (of dog)'</td>
<td>ŋuŋuumpa</td>
</tr>
<tr>
<td>'growl (of dog)'</td>
<td>kuli</td>
</tr>
<tr>
<td>'moan'</td>
<td>icama</td>
</tr>
<tr>
<td>'laugh'</td>
<td>upi, upimpa</td>
</tr>
<tr>
<td>'whistle'</td>
<td>apii</td>
</tr>
<tr>
<td>'sing'</td>
<td>ciŋati</td>
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<tr>
<td>'talk about someone'</td>
<td>ciŋticamati</td>
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<tr>
<td>'boast'</td>
<td>ikani</td>
</tr>
<tr>
<td>'know'</td>
<td>pasiriŋati</td>
</tr>
<tr>
<td>'learn'</td>
<td>pasiripuni</td>
</tr>
<tr>
<td>'teach'</td>
<td>ŋani</td>
</tr>
<tr>
<td>'see'</td>
<td>miŋtipati</td>
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<tr>
<td>'show'</td>
<td>jakapi</td>
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<tr>
<td>'understand'</td>
<td>jakapi, ίŋa ŋu</td>
</tr>
<tr>
<td>'hear, listen'</td>
<td>ίŋaŋaũma</td>
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<tr>
<td>'think about'</td>
<td>atii wamišati</td>
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<tr>
<td>'dream of'</td>
<td>ίŋtaŋkaraŋati, ίŋtaŋkarapuni</td>
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<tr>
<td>'forget'</td>
<td>ŋuupira</td>
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<tr>
<td>'sulk'</td>
<td>ńurkiŋuuma</td>
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<tr>
<td>'tell lies, pretend'</td>
<td>waira ŋu</td>
</tr>
<tr>
<td>'to like'</td>
<td>ŋumpi</td>
</tr>
<tr>
<td>'to fear'</td>
<td>ŋumpima</td>
</tr>
<tr>
<td>'to frighten'</td>
<td>kuțu wațara</td>
</tr>
<tr>
<td>'to be angry'</td>
<td>ciŋaamna</td>
</tr>
<tr>
<td>'take care of/with' (Vₜ)</td>
<td>ciŋaamamati</td>
</tr>
<tr>
<td>'take care' (V₁)</td>
<td></td>
</tr>
</tbody>
</table>

Sounds

<table>
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<tr>
<th>English</th>
<th>Uunpa</th>
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</thead>
<tbody>
<tr>
<td>'to rustle (of leaves etc.)'</td>
<td>ŋawapili, wakampaka, wakampawakampa</td>
</tr>
<tr>
<td>'to make a noise'</td>
<td>cicima</td>
</tr>
<tr>
<td>'to make a fuss'</td>
<td></td>
</tr>
</tbody>
</table>
'to go bang (of thunder, gun)'
'to go crack, to crackle'

Change of state
'grow warm'
'grow cold'
'grow dry'
'grow hard'
'grow up'
'swell'
'abate (of rain)'
'get lost'
'grow late'
'grow dark'

QUANTITY
'one'
'two'
'three'
'four'
'mob'
'few'
'many'
'much, in great numbers/quantity'
'a little'
'none'

INTERROGATIVES AND INDEFINITES
'where'
'where to'
'where from'
'which way, some way or other'
'when'
'what, something'
'why'
'how many, some'
'who, someone'
polar interrogative marker
'which'

luma
cilarinpa
pujuṭati, jumuṭati
iliṭati
mujutaṭati
ṭailati
jumuṭati, kantupirinaiṭati
puḍruṭati
raaṇcuṭati
wampaṭati
ṇaiqṭati
miwaluṭati
ajar
kuraṭi
kuraṭi
maṭṭa
muṭu (‘a group, heap, pile’)
ulari (‘crowd’), maṭṭa
paṭku, paṭkumpiri
ṇunca, ṇurku
arakāṭi
arakāṅi
arakānu
kia
ṇiṅu
ṇaka
ṇakaja, ṇakajan, ṇakaā, ṇakakua
ṇāmiṅu
ṇanī
wiw
ṇakāli
### TIME

- 'now, today'
- 'yesterday'
- 'the day before yesterday'
- 'the other day'
- 'formerly'
- 'recently'
- 'long ago'
- 'last night'
- 'in the night'
- 'tomorrow'
- 'day after tomorrow'
- 'early in the morning'
- 'later'
- 'middle of the night'
- 'when the sun is high'
- 'in the daytime'
- 'every day'
- 'always'
- 'again'
- 'still'
- 'beforehand'
- 'later on'
- 'first'

### POSITION

- 'upside down'
- 'close, near'
- 'here'
- 'at home'
- 'far'
- 'above'
- 'below'
- 'behind'
- 'in front, in first place'
- 'the other side'
- 'at the side'
- 'in the middle'
- 'inside'
- 'hither'
- 'thither'
- 'hence'

---

<table>
<thead>
<tr>
<th>English</th>
<th>Yoruba</th>
</tr>
</thead>
<tbody>
<tr>
<td>'now, today'</td>
<td>iyàa</td>
</tr>
<tr>
<td>'yesterday'</td>
<td>ọjaínị</td>
</tr>
<tr>
<td>'the day before yesterday'</td>
<td>ọjaínịnara</td>
</tr>
<tr>
<td>'the other day'</td>
<td>piincamuñarára</td>
</tr>
<tr>
<td>'formerly'</td>
<td>cajàa</td>
</tr>
<tr>
<td>'recently'</td>
<td>ịlañụna</td>
</tr>
<tr>
<td>'long ago'</td>
<td>cajàa puṭur</td>
</tr>
<tr>
<td>'last night'</td>
<td>îa wạtañka</td>
</tr>
<tr>
<td>'in the night'</td>
<td>wạtañka</td>
</tr>
<tr>
<td>'tomorrow'</td>
<td>wạtañaaa</td>
</tr>
<tr>
<td>'day after tomorrow'</td>
<td>warațiña</td>
</tr>
<tr>
<td>'early in the morning'</td>
<td>ọjaínịaịị</td>
</tr>
<tr>
<td>'later'</td>
<td>ụlaañụta</td>
</tr>
<tr>
<td>'middle of the night'</td>
<td>piincamuți</td>
</tr>
<tr>
<td>'when the sun is high'</td>
<td>piincampüpiincamuñarați</td>
</tr>
<tr>
<td>'in the daytime'</td>
<td>ụlụ, nìmu, munụnumụnụ</td>
</tr>
<tr>
<td>'every day'</td>
<td>nụlí</td>
</tr>
<tr>
<td>'always'</td>
<td>Kulukulu</td>
</tr>
<tr>
<td>'again'</td>
<td>nụlí</td>
</tr>
<tr>
<td>'still'</td>
<td>Ọmpuñụtuña</td>
</tr>
<tr>
<td>'beforehand'</td>
<td>mañkaa, mañii</td>
</tr>
<tr>
<td>'later on'</td>
<td>waçaaliña</td>
</tr>
<tr>
<td>'first'</td>
<td>waçaaliña</td>
</tr>
<tr>
<td>'upside down'</td>
<td>ọnįnkai</td>
</tr>
<tr>
<td>'close, near'</td>
<td>pikaja</td>
</tr>
<tr>
<td>'here'</td>
<td>ọnti</td>
</tr>
<tr>
<td>'at home'</td>
<td>muli</td>
</tr>
<tr>
<td>'far'</td>
<td>jarka</td>
</tr>
<tr>
<td>'above'</td>
<td>piiriña</td>
</tr>
<tr>
<td>'below'</td>
<td>pia</td>
</tr>
<tr>
<td>'behind'</td>
<td>uțiŋka</td>
</tr>
<tr>
<td>'in front, in first place'</td>
<td>wacaliña, wacaliña</td>
</tr>
<tr>
<td>'the other side'</td>
<td>uṭarñara, panajàa, panampaja</td>
</tr>
<tr>
<td></td>
<td>panañịnnun, pani tị ọaantun ('opposite')</td>
</tr>
<tr>
<td>'at the side'</td>
<td>lakia (also 'left over, remaining')</td>
</tr>
<tr>
<td>'in the middle'</td>
<td>ụiinta</td>
</tr>
<tr>
<td>'inside'</td>
<td>ụŋkanta, ụŋkankụna (allative form)</td>
</tr>
<tr>
<td>'hither'</td>
<td>ọaunụ</td>
</tr>
<tr>
<td>'thither'</td>
<td>paunụ</td>
</tr>
<tr>
<td>'hence'</td>
<td>luụnu</td>
</tr>
</tbody>
</table>
'upstream'
'downstream'
'elsewhere'
'out of sight'
'in the opposite direction'
'north'
'south'
'east'
'west'

'really'
'accurately, carelessly, inaccurately'
'still, always'
'quickly, early'
'loudly'
'ready'
'yes'
'not'
'no'
'don't'
'if'
'well, now'
'a slice'
'secret'
'in return' (as in 'pay back')
'on one's own'

manţiña
pćiña
muunara ('other camp')
įampupla
ągiąanaři
įąpųŋi
įirįwa, karwaį
kialpari
ųŋųŋa

pańca
wampaįna
ųįį
majapira
ųruwa
pajana
ąa
kuntu
kuna, kunajan, kunaan
wanta
pųju
łąa, łamara, mara
walkar
ųąana
palkir
jańkańa
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

<table>
<thead>
<tr>
<th>Kalkatungu</th>
<th>Earlier Meaning</th>
<th>Additional Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>jani</td>
<td>'ghost'</td>
<td>'white man'</td>
</tr>
<tr>
<td>ikan</td>
<td>'wild honey,&quot;sugar-bag&quot;</td>
<td>'sugar'</td>
</tr>
<tr>
<td>kacapi</td>
<td>'kite hawk'</td>
<td>'aeroplane'</td>
</tr>
<tr>
<td>n'jia</td>
<td>'stone, pebble'</td>
<td>'money'</td>
</tr>
<tr>
<td>ŋuu-ŋuu</td>
<td>'pattern, markings'</td>
<td>'writing'</td>
</tr>
<tr>
<td>kinti</td>
<td>'water rat'</td>
<td>'chook'</td>
</tr>
<tr>
<td>cu'tu</td>
<td>'coolaman'</td>
<td>'car'</td>
</tr>
</tbody>
</table>

Examples of words assimilated from English

<table>
<thead>
<tr>
<th>Kalkatungu</th>
<th>Original</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>cuku-cuku</td>
<td>'chook'</td>
<td>'domestic fowl, chook'</td>
</tr>
<tr>
<td>jalapala</td>
<td>'yella fella'</td>
<td>'part Aboriginal person'</td>
</tr>
<tr>
<td>miṯiṯi</td>
<td>'missus'</td>
<td>'white woman'</td>
</tr>
<tr>
<td>puṯikar</td>
<td>'pussy cat'</td>
<td>'domestic cat'</td>
</tr>
<tr>
<td>putu</td>
<td>'pot'</td>
<td>'stew'</td>
</tr>
<tr>
<td>ŋutu</td>
<td>'road'</td>
<td>'road'</td>
</tr>
<tr>
<td>ŋupu</td>
<td>'soap'</td>
<td>'soap'</td>
</tr>
</tbody>
</table>
| ŋina      | 'dinner' | 'meal (other than breakfast)'

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<table>
<thead>
<tr>
<th>pilikan</th>
<th>'billy can'</th>
<th>'billy'</th>
</tr>
</thead>
<tbody>
<tr>
<td>ūaun</td>
<td>'town'</td>
<td>'town'</td>
</tr>
<tr>
<td>ūrupu</td>
<td>'rope'</td>
<td>'rope'</td>
</tr>
<tr>
<td>kiki</td>
<td>'cake'</td>
<td>'cake'</td>
</tr>
<tr>
<td>kaun</td>
<td>'gown'</td>
<td>'dress, frock, gown'</td>
</tr>
<tr>
<td>pulanāktiti</td>
<td>'blanket'</td>
<td>'blanket'</td>
</tr>
<tr>
<td>pulaka</td>
<td>'bullock'</td>
<td>'bullock'</td>
</tr>
<tr>
<td>puliği</td>
<td>'bullock'</td>
<td>'bullock'</td>
</tr>
</tbody>
</table>

**New formations**

<table>
<thead>
<tr>
<th>atिञ्चि जाञ्चरि</th>
<th>('killer of meat')</th>
<th>'butcher'</th>
</tr>
</thead>
<tbody>
<tr>
<td>kuuja pujur punintijicir</td>
<td>('heater for water')</td>
<td>'copper' ('boiler')</td>
</tr>
<tr>
<td>kanimajinci</td>
<td>('who ties one up')</td>
<td>'policeman'</td>
</tr>
<tr>
<td>kanimantijicir</td>
<td>('with which one ties up')</td>
<td>'leash'</td>
</tr>
</tbody>
</table>

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. Auati
3. kurpai
4. Auati-Auati
5. makaṭi-ajarña (makaṭi = 'hand')
6. " naraña ajarña (nara = 'other', -na = adverb forming)
7. " " Auati
8. " " kurpai
9. " " Auati Auati
10. " " makaṭi naraña
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