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# TABLE OF CONTENTS

**YANYUWA NOMINATIVE AND ERGATIVE-ALLATIVE CASES**  
by J.F. Kirton  
1. INTRODUCTION  
2. CASE MARKING SYSTEM  
3. CASE MARKERS  
4. SYNTACTIC BACKGROUND  
5. A SINGLE MEANING FOR NOMINATIVE CASE  
6. AN AREA OF COMMON MEANING FOR ERGATIVE-ALLATIVE  
7. TENTATIVE CONCLUSION  
   Notes  
   Abbreviations  
   Bibliography  

**UMBUYGAMU: THE CLASSIFICATION OF A CAPE YORK PENINSULAR LANGUAGE**  
by B.A. Sommer  
1. INTRODUCTION  
2. PHONOLOGY  
3. MORPHOLOGY  
4. SYNTAX  
5. LEXICON  
6. CONCLUSION  
   Notes  
   Bibliography  
   Map  
   Photograph  

<table>
<thead>
<tr>
<th>Note 1</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abbreviations</td>
<td>10</td>
</tr>
<tr>
<td>Bibliography</td>
<td>11</td>
</tr>
<tr>
<td>Map</td>
<td>29</td>
</tr>
<tr>
<td>Photograph</td>
<td>31</td>
</tr>
<tr>
<td>Topic</td>
<td>Page</td>
</tr>
<tr>
<td>-----------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>TENSE-MARKING IN GUNU PRONOUNS</td>
<td>33</td>
</tr>
<tr>
<td>by S.A. Wurm and L. Hercus</td>
<td></td>
</tr>
<tr>
<td>I. INTRODUCTION</td>
<td>33</td>
</tr>
<tr>
<td>II. THE GUNU LANGUAGE</td>
<td>34</td>
</tr>
<tr>
<td>III. DIFFERENCES BETWEEN SOUTHERN BA:GANDJI AND GUṈU</td>
<td>35</td>
</tr>
<tr>
<td>IV. THE POSITION OF BA:RUNDJI</td>
<td>37</td>
</tr>
<tr>
<td>V. ASPECT MARKERS IN GUṈU</td>
<td>37</td>
</tr>
<tr>
<td>VI. PRONOUNS AND TENSE</td>
<td>39</td>
</tr>
<tr>
<td>VII. A NOTE ON BA:RUNDJI PRONOUNS</td>
<td>42</td>
</tr>
<tr>
<td>VIII. CONCLUSION</td>
<td>44</td>
</tr>
<tr>
<td>Special Abbreviations</td>
<td>46</td>
</tr>
<tr>
<td>Bibliography</td>
<td>47</td>
</tr>
<tr>
<td>Map</td>
<td>49</td>
</tr>
<tr>
<td>Photographs</td>
<td>51</td>
</tr>
</tbody>
</table>

'FRUIT OF THE EYES' SEMANTIC DIFFUSION IN THE LAKES LANGUAGES OF SOUTH AUSTRALIA
by P. Austin, R. Ellis and L. Hercus                       | 57   |
| Bibliography                                              | 65   |
| Map                                                       | 67   |
| Photographs                                               | 69   |
YANYUWA NOMINATIVE AND ERGATIVE-ALLATIVE CASES

JEAN F. KIRTON

1. Introduction
2. Case Marking System
3. Case Markers
4. Syntactic Background
5. A Single Meaning for Nominative Case
6. An Area of Common Meaning for Ergative-Allative
7. Tentative Conclusion

1. INTRODUCTION

Yanyuwa¹ is one of the Australian Aboriginal languages which has an
ergative type case marking system; that is, ergative case marks tran­
sitive subject, and nominative² case marks non-transitive subject and
also object. The purpose of this paper is to present the hypothesis
that in Yanyuwa the nominative case marker has a single meaning relevant
to its various grammatical occurrences, and that the ergative-allative
case marker also has an area of meaning common to its various occur­
rences.

Yanyuwa is different from most Australian Aboriginal languages the
author is aware of in that it generally marks transitive subject,
allative and purposive with a single marker, but if the hypothesis
proves valid for Yanyuwa, there may well be implications for other
languages with ergative case systems also.
In relation to ergative versus accusative case marking systems, Yanyuwa has an ergative system which is neutralised at one place in the language. The nominative-ergative distinction is apparent in the morphology of nouns and adjectives, demonstrative, interrogative and possessive pronouns, and there are evidences of it in the person marker sets occurring with transitive verbs. The distinction is neutralised in the free pronoun set so that the same form occurs for both ergative and nominative, although it is rare for a free pronoun to occur as a transitive subject. In most areas affected by the case marking system, ergative and allative have a single marker, but free pronouns distinguish between the two, and participles are marked for ergative only (see chart). This suggests that there is an added complexity that can be expected in the meaning of ergative-allative, that there is a measure of sameness and a measure of difference.

**CHART OF YANYUWA NOMINATIVE, ERGATIVE, ALLATIVE SUFFIXES**

<table>
<thead>
<tr>
<th>Nouns, Noun Modifiers, Interrogatives</th>
<th>Free Pronouns</th>
<th>Participles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominative</td>
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<td>-∅</td>
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<tr>
<td>Ergative</td>
<td>-lu</td>
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<tr>
<td>Allative</td>
<td>-lu</td>
<td>-lu</td>
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</tbody>
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**3. CASE MARKERS**

Yanyuwa has four case marking suffixes which occur on nouns and their modifiers and certain other word classes. The suffixes are: -∅ 'nominative', -lu 'ergative-allative', -la 'ablative', -wu 'genitive'. The nominative is always realised by -∅. The remaining case markers have a series of allomorphs (described in detail in "Complexities of Yanyula Nouns", Kirton 1971). The class marking prefixes which occur on nouns and their modifiers also change in agreement with the case marking suffixes with which they co-occur but some distinctions are lost. Prefixes make no distinction between ergative and ablative cases, and in the four commonest classes, male, masculine, female and feminine, prefixes only distinguish nominative and non-nominative (or oblique).
Nominative marks the subject of all clauses except transitive, and
marks the object of transitive clauses. Ergative-allative marks
transitive subject, allative (to a person or place) and purposive func-
tions. (The chart illustrates the distributional limitations placed
on the use of this marker.) Ablative marks accompaniment, instrument,
locative (in, at, on, by) functions, and it also marks the locative
phrase occurring with the preposition nagari 'from'. Genitive marks
possession at word and phrase level, and on a syntactic level marks in-
direct object function.

4. SYNTACTIC BACKGROUND

Clause level analysis in Yanyuwa is still in progress but in current
analysis, clauses are divided into four major types - stative clauses
(which are non-verbal), existential clauses (with the verb φ 'be' or
one of the other verbs which supplement it), intransitive clauses and
transitive clauses. (Reflexive or reciprocal verbs occur in either in-
transitive or transitive clauses.) This then gives the general frame-
work in which case marking occurs.

Examples (1) - (4) below illustrate the four main clause types. They
all utilise the morpheme yabi 'good, well, nice, pleasant':

STATIVE
(1) nja-yabi-φ nja-miŋiŋiya-φ
  m nom-good-nom m nom-man-nom
  'the man is good / the man was good'

EXISTENTIAL
(2) djiw-φ-ini nja-yabi-φ nja-miŋiŋiya-φ
  he-be-pres m nom-good-nom m nom-man-nom
  'he is a good man'

INTRANSITIVE
(3) djiwa-yabiŋi-ndji nja-miŋiŋiya-φ
  he-become well-pres m nom-man-nom
  'the man is becoming well / the man is improving'

TRANSITIVE
(4) ganj-ilu-yabima-ndji nja-miŋiŋiya-φ nju-maŋalŋudji-lu
  him-he-make well-pres m nom-man-nom m nom-docum-doctor-erg/all
  'the doctor makes the man well / the doctor is healing the man'

These four clauses are given as being generally representative of the
language. Stative clauses make descriptive or equative statements.
Existential clauses share a meaning component of 'state of being'. Intransitive clauses generally share a meaning component of 'a process occurring'. Transitive clauses generally share a meaning component of 'a process being effected'. (A process is defined as a sensory or physical activity as opposed to a state of being.)

5. A SINGLE MEANING FOR NOMINATIVE CASE

Nominaive case marks object of transitive clauses, and subjects of clauses other than transitive clauses. In considering examples (3) and (4) again, a common feature emerges for the entities marked nominative. In both (3) and (4) the experience of the man is the same. He becomes well. In (3) there is no reference to the instigator or cause of becoming well. There is a simple statement about the process. In (4) the additional information is given that the action is a caused one and that it was caused by a doctor. In both (3) and (4) the man is the experiencer of the process, and so the meaning 'experiencer' is assigned to the nominative case.

These two examples have a number of parallels with other pairs of verbs such as wağifī 'become bad, deteriorate' and wağima 'make bad, spoil, harm', lumbufi 'become strong' and lumbuma 'make strong', ʒabu 'go underwater, bathe' and ʒabunjdjam 'push or pull underwater, wani 'go back, come back' and waninjdjam ʒuma 'take back, bring back'. These verbs would all substitute for the verbs in (3) and (4) to further illustrate the 'experiencer' meaning of the nominative marking.

It is necessary to look at other examples where there is not a common root involved in the verbs and at examples where verbs of motion are used. Consider (5) and (6), (7) and (8):

(5) giya-Winga-ŋa nja-minjinya-ŋa
    he-walk-p  m nom-man-nom
    'the man went'

(6) ganj-ila-ga-ŋa nja-minjinya-ŋa nju-maŋalŋudji-1u
    him-he-take-p  m nom-man-nom  m nnom-doctor-erg/all
    'the doctor took the man'

(7) giw-anba-ŋa nja-minjinya-ŋa
    he-fall-p  m nom-man-nom
    'the man fell'

(8) ganj-ilu-lawundama-ŋa nja-minjinya-ŋa nju-maŋalŋudji-1u
    him-he-make fall-p  m nom-man-nom  m nnom-doctor-erg/all
    'the doctor made the man fall'
In both (5) and (6) the man goes from one place to another - he moves from place A to B. In (5) there is no indication of the cause of his going, but his experience of moving from A to B is the same. In (7) and (8) the sameness of the man's experience is more obvious. In all four examples he is the experiencer of the action in progress. The role of man in (5) and (7) is etically labelled as 'actor-experiencer' and in (6) and (8) it is etically labelled as 'object-experiencer' (as Pike & Pike 1974). (Dr Pike labels the subject of a passive construction 'actor-undergoer' which would be 'actor-experiencer' in the writer's terminology.) Discussion of outside causes motivating such actions as walking is continued in section 6.

Two further examples are given using a reflexive and a transitive verb which share a common stem and occur in two contrastive constructions:

(9) gumba-wuduŋuma-ŋ nja-miŋiŋiya-ŋ
    he refl-feed-p m nom-man-nom
    'the man fed himself / the man ate'

(10) ganj-ilu-wuduŋuma-ŋ nja-miŋiŋiya-ŋ nju-maŋalŋudji-lu
    him-he-feed-p m nom-man-nom m nnom-doctor-erg/all
    'the doctor fed the man'

In both (9) and (10) the man is very apparently the experiencer in the process of eating. In (10) he has an assistant.

6. AN AREA OF COMMON MEANING FOR ERGATIVE-ALLATIVE

The examples (4), (6), (8) and (10) considered above also illustrate the use of ergative case marker -lu to mark the transitive subject, and each of these examples demonstrates the 'causer' function of the doctor (who is marked in that way).

Consider two further examples to see the use of the same ergative marker to mark purpose in both an intransitive and a transitive clause:

(11) giya-winge-ŋ yaŋibanga- lu
    he-walk-p hunting-erg
    'he went to hunt'

(12) ganj-ilangi-ŋ yaŋbanga- lu
    him-he-take-p hunting-erg
    'he took him to hunt'

The reasons for or the purpose of the main action in both (11) and (12) is the hunting, which is marked by -lu. The purpose of the action is
the cause for the action, and so in this sense the ergative is still marking the 'causer' of the action.

Two further factors accord with the view of purpose as 'cause'. Firstly, purposive occurs much more frequently in intransitive clauses which have no transitive subject, and secondly, clause analysis to this point indicates that transitive subject and purposive functions, as manifested by a word or phrase marked by ergative-allative marking, do not co-occur in a single clause.

Allative function may be marked by the ergative-allative marker -lu. It is proposed that there is a component of 'causer' meaning in the ergative-allative case marker but there is also a contrastive component, and that this irregularity of meaning component occurrence parallels the irregularity in the Yanyuwa case marking system for ergative and allative (see chart again to compare marking of nouns and free pronouns).

It is noted that analysis to this time indicates that the allative function, manifested by a word or phrase marked by ergative-allative affixation, does not co-occur with transitive subject or purposive functions in the same clause. An allative phrase may co-occur only if it is a prepositional phrase of a kind unmarked by -lu. It is further noted that in Yanyuwa discourse, the pattern is for the participants to be introduced at the beginning of the discourse. After this, nouns or noun phrases are used only to introduce new participants playing minor roles or to resolve potential ambiguity. Person markers or demonstrative pronouns maintain the continuity of reference to participants otherwise. In current data, the only examples of co-occurrence of a word or phrase manifesting transitive subject and a prepositional phrase marked by -lu manifesting allative, is in a sentence, with intonation clearly indicating the completion of one clause and the commencement of another.

Examples (13) - (15) illustrate the suffix -lu marking allative function:

(13) giya-wingga-$\bar{g}$ yila-$\bar{g}$ nju-nafalndji-$\bar{lu}$
    he-walk-p him-all m nnom-doctor-erg/all
    'he went to the doctor'

(14) giya-wingga-$\bar{g}$ nungwul-anjndji-$\bar{lu}$
    he-walk-p arb abl/erg/all-camp-erg/all
    'he went to the camp'

(15) ganj-ila-$\bar{g}$a-$\bar{g}$ Mungubayi-$\bar{lu}$
    him-he-take-p Bruketown-erg/all
    'he took him to Bruketown'
The suggestion is that there is a way in which 'causer' may apply to the ergative-allative marker as it marks allative function but that there is a measure in which this is unsatisfactory. From the author's observation of the Yanyuwa people, activity is not undertaken without a purpose or goal. A member of Yanyuwa society does not go aimlessly for a stroll. If he goes walking it is with the intention of achieving a purpose or reaching a destination. A person, place or activity must be the goal of a motion activity of coming, going, taking, sending; that is, there is an outside motivation. In this area then the goal of the action may be regarded as an indirect cause or being associated with the cause.

The unsatisfactory element in assigning a 'causer' meaning to the ergative-allative marker for allative function is evident in examples (16) and (17):

(16) giw-anba-∅ djiy-awara-lu
   he-fall-p msc nnom-ground-erg/all
   'he fell to the ground'

(17) gi-wuluma-∅ wuřa-lu
   it-run-p underwater-erg/all
   'it ran into the water (out of its depth)'

Example (17) is in the context of animals rushing over a cliff into the water and drowning, and the 'causer' in this particular instance is explicitly stated to be evil spirits within the animals.

7. TENTATIVE CONCLUSION

On the grounds of the above evidence, the author tentatively concludes that in relation to nominative and ergative-allative cases, a case may be made for considering that in Yanyuwa case markers basically have a single meaning, even when they mark what have traditionally been thought of as such different grammatical entities as subject and object. If the contrast is viewed as being between 'experiencer' and 'causer' rather than between subject and object, then a logic to ergative marking becomes clear. In this view, subjects of equative and existential clauses also have a function of 'experiencer' as it occurs in opposition to 'causer'.

Other case markers must also be analysed from this viewpoint and analysis must be taken further before more confident conclusions can be reached.
1. Yanyuwa is the only language of the Yanyulan family. The speakers of the language live mainly at or around Borroloola in Australia's Northern Territory. The language is referred to in the literature as Anyula, Yanyula, Yanyuwa, Wadiri, with variations of orthography for these names. Yanyuwa is the name used by the speakers among themselves in reference to themselves and their language, and is the spelling according to current A.I.A.S. conventions. Yanyuwa has reference number 28 in Oates' A Revised Linguistic Survey of Australia.

This paper is written using data obtained during an approximate total of fifty months' linguistic field work at both Borroloola and Doomadgee Mission since 1963, during the author's work under the auspices of the Summer Institute of Linguistics.

The author is grateful to patient willing Yanyuwa helpers for all that they have shared of their language, and is grateful also to senior colleagues in S.I.L., more particularly to Dr Kenneth L. Pike and Drs George Huttar and Christine Kilham, whose lectures, guidance, and editorial assistance have contributed to the production of the paper.

Grateful acknowledgement is also made for the help of a concordance of approximately 19,000 words of Yanyuwa text compiled by the IBM computer at the University of Oklahoma by the Linguistic Information Retrieval Project of the S.I.L. and the University of Oklahoma Research Institute, and sponsored by Grant GS-934 of the National Science Foundation.

This paper was first presented at the Linguistic Society of Australia meetings in Sydney, 1975, and has since been revised.

2. These terms, nominative and ergative, conform to Australian usage (Hale 1966, 1970; Dixon 1970). Dr Capell refers to 'operative', 'agentive' and 'ergative' in labelling the case marking transitive
subject (1956). His own preference is for 'operative' when the same case marker also marks instrument function.

3. In the Yanyuwa noun paper (Kirton 1971) different terminology was used. The nominative of this paper is there referred to as nuclear, ergative-allative as directive, ablative as associative, and genitive as referent.

4. Alternative word orders are acceptable but the order judged to be that most frequently used is that which is given. Examples are given in the women's dialect which makes distinctions more clearly than the men's.

5. Morpheme breakdown of verbs has been simplified so that the reader may more readily focus his attention on the case marking which is being considered.

6. It is noted that for free pronouns -lu marks allative only. (See section 2 and the chart.) The free pronoun and the noun are in apposition in this clause.
ABBREVIATIONS

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<tr>
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<tr>
<td>abl</td>
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</tr>
</tbody>
</table>
CAPELL, A.

DIXON, R.M.W.

HALE, Kenneth L.

KIRTON, Jean F.

OATES, W.J. and Lynette F.

PIKE, Kenneth L.
PIKE, Kenneth L. and Evelyn G. Pike
1974  *Grammatical Analysis 4.2*. Huntington Beach, California:
S.I.L.
1. INTRODUCTION

The most widely acclaimed classification of Australian languages so far has been that of O'Grady, Voegelin and Voegelin (1966) which is reflected almost directly in a map (O'Grady, Wurm and Hale 1966) and less directly in subsequent revisions by Oates and Oates (1970), Wurm (1972a) and Oates (1975). There are many unsatisfactory features of the original classificatory survey: languages were omitted, the lexicostatistics (on which the classification was based) were never published, there was little discussion of classificatory criteria, and what criteria were employed can only be described as arbitrary (O'Grady, Voegelin and Voegelin 1966:10-4). These classifications have nevertheless provided a proximate framework within which linguists can operate in pursuing research. They have also been a basis — however inadequate — for talking about various groups and subgroups of languages, and if precision has been lacking there has nevertheless been a tacit agreement amongst linguists that these groups will be refined and better delineated, rather than vitiated, by subsequent research.

One of the better understood subgroups is Northern Paman — described by K.L. Hale (1964, 1976a,b) as part of the loosely defined Paman group.
of languages, spoken by inhabitants of Cape York Peninsula. In all this area, relatively recent but pervasive and highly innovative phonological developments have taken place, thus earning for its languages adjectives such as "aberrant", "atypical" and even "un-Australian". From a relatively conservative bloc of languages immediately south of Hale's Northern Paman he was able to reconstruct stems for various ranks of a proto-language that he called Proto Paman. These reconstructions suggest an ancestor language that resembled — in phonology at least — the vast majority of Australian languages outside the group.

Other workers in the Peninsular area during the 1960's had been Lamont West Jr and Donald Laycock. In pursuing his research to publication, Laycock (1969) leaned on West's informal notes and summaries. Plagued in the field by failing batteries in unreliable recorders, camp interruptions, or by aged or difficult informants, and pressed for time, Laycock's ultimate strategy was to report without extended comment all that could be recovered at that time on three languages from the Princess Charlotte Bay area that he described as "Lamalamic". On inspection, one of these languages — Umbuygamu — appeared to share with the still ill-defined Central Paman subgroup certain obvious phonological developments. The Central Paman subgroup was proposed by Sommer (1969) as one which extended geographically from the lower reaches of the Mitchell River to the western side of the Dividing Range. The languages were characterised by phonological innovations such as

loss of the initial consonant of reconstructed stems;  
loss of contrastive length on the first vowel; and  
the development of plosive onsets by nasals following the first vowel, under certain phonological conditions.

The literature confirmed Laycock's material. In 1933-4 H.M. Hale and Tindale published the findings of their 1927 field trip to Princess Charlotte Bay, and in their record of Yetteneru is seen a close parallel of both Laycock's Umbuygamu and a word list of Yeiya made by linguists of the Summer Institute of Linguistics (S.I.L.) in 1954. Alongside contemporary data from certain Central Paman languages the similarities in development were striking:

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<td>iŋŋau</td>
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<td>abm(a)</td>
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<td>apma ('all')</td>
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</table>
Supported by a grant from the Australian Institute of Aboriginal Studies (A.I.A.S.) I undertook extensive field work in 1972, and briefer trips in 1973 and 1974, with the aim of defining more precisely the Central Paman subgroup. As was seen very clearly at the time, this involved essentially a classification of the status of Umbuygamu. It was still possible to interview informants from all three of the "Lamalamic" languages that Laycock had proposed, and to extend and refine his data. For Umbuygamu I was fortunate enough to interview Mrs Nellie Salt—West's informant of 1961—when she was at least eighty years of age, and was able to check some of his forms. Mr Bob Bassini of Coen—also retired—provided fuller data, while Mrs M. Liddy and Mrs N. Gunnawarra, both ladies in their thirties, checked these materials and added to them. The late Mrs Daisy Salt provided materials in "proper Lamalama" and her husband Frank matched these in Bariman Gutinha.

My initial reaction was that Umbuygamu was poorly placed in the Lamalamic subgroup, but the problem of its classification is much more complex than was then believed, and in this paper I intend to explore phonological, morphological, syntactic and lexical evidence in determining its status. In doing so, it is well to keep in mind the relative geographic location of various linguistic groups (see Map). The Umbuygamu dwelt along the coast of the Bay in the vicinity of Balaclutha Creek, while the shores of the Bay to the south and east were occupied by the "proper Lamalama" of Daisy Salt's close kin. To the south of them, Bariman Gutinha speakers claimed the land behind the coastal clans and merged to the south with the Koko-Rarmul group of Roth (1898). To the west of the Umbuygamu were the Olgolo, a Central Paman linguistic group; to the north they encountered speakers of Umbindhamu and southern Umpila dialects.

2. PHONOLOGY

The Phoneme inventory of Umbuygamu is unusual enough; it shows considerable development of the putative Proto Paman consonant system, at the expense of comparable developments in the vowel system.

\[
\begin{array}{cccccccc}
\text{Umbuygamu} & *\text{Proto Paman (Hale 1964)} \\
p & t & j & k & q & *p & *t & *j & *k \\
b & d & d & g & *b & *d & *g \\
\phi & \theta & \chi \\
m & n & \bar{n} & \eta & *m & *n & *\bar{n} & *\eta \\
l & l & *l \\
r & R & *r & *R \\
w & s & y & s & y \\
\end{array}
\]
The oddity of Umbuygamu is however not fully apparent until canonical word shapes are examined. Hale's reconstruction of Proto Paman has provided an inventory of putative stems, which conform to the general pattern

\[ *C_1 V_1 C_2 V_2 (C_3(V_3)) \]

where \( C_2 \) is the only position in which consonant sequences are attested (and then of a restricted type, not unlike the sequences found in contemporary Paman Nyungan languages).

Compared with this pattern, Umbuygamu exhibits more startling contrast:

- akŋár 'devil'
- urúlľa 'gum' (unusual CC sequence; phonetically [lɪtʃ])
- uŋuá 'sand'
- uŋám 'bird sp. black cockatoo'
- lěær 'echidna quill'
- uŋámal 'bone'

These result however from regular phonological changes, the basic order of which can be traced:

- The first rule is that of consonant gradation.

\[ C \rightarrow \emptyset / \# \]

In Umbuygamu, all initial consonants were lost, leaving stems with a vowel in initial position. These vowels lost distinctions of length by a successive rule: \( V_1 \) Shortening.

\[ V \rightarrow [-long] / \# \]

As a result of these two rules Umbuygamu has

- *mala \rightarrow alä(m) 'right hand'

but

- *tjá:wá \rightarrow awa 'mouth'.

The loss of length in \( V_1 \) was compensated by phonological developments in the nasals of \( C_2 \). Simple nasals in this position developed a plosive onset if \( V_1 \) had been short — and remained unchanged if \( V_1 \) had been long:
but

*\text{n}i:na- > ina- 'sit'
*\text{wa}:\text{n}a > a\text{\text{n}a} 'liver'

Although this appears to be the effect of a separate rule, the phenomenon of preploded nasals is in fact only a corollary of \text{V}_1 \text{ Shortening}. Prior to the application of the shortening rule, Umbuygamu is presumed to have signalled vowel length phonetically in both \text{V}_1 and \text{C}_2 segments, where \text{C}_2 was a nasal, after the following fashion:

\begin{align*}
\text{[itna]} & \Rightarrow */\text{ina}/ \quad \text{'ear'} \\
\text{[a}:\text{\text{n}a}] & \Rightarrow */\text{a}:\text{\text{n}a}/ \quad \text{'liver'}
\end{align*}

Um\text{bin\text{g}am}u, in which the \text{C}_1 \text{ Gradation rule only softens (to resonants)} the initial consonant of Proto Paman stems, maintains to this day a non-phonemic distinction in nasals in the same position, correlating with vowel length:

\begin{align*}
*\text{n}i:na- > \text{n}i:na- & \quad \text{sit'} [\text{n}i:na\text{l}] \\
*\text{wu}:\text{na-} & \Rightarrow \text{wuna-} \quad \text{tie'} [\text{wun:a}] \\
\end{align*}

Preservation of the hitherto non-phonemic plosive onset to Umbuygamu nasals persisted after the length on vowels was lost, making the contrasting onset distinctive. The development of simple nasals in Central Cape York Peninsular languages varies considerably in detail, but the mechanism is the same: compensation for loss of vowel length in \text{V}_1. In Oykangand and the Olgol dialects, the prenasal plosive manifests a voiced onset

\begin{align*}
*pama > \text{abm(a)} & \quad \text{man}' \\
\end{align*}

Lamalama has the reverse; a voiced plosive release:\textsuperscript{2}

\begin{align*}
*pama > \text{mba} & \quad \text{man}' \\
\end{align*}

Bariman Gutinhma has only a voiced plosive

\begin{align*}
*pama > \text{ba} & \quad \text{man}'
\end{align*}

corresponding with the simple nasal that followed long vowels:

\begin{align*}
*\text{n}i:na- > \text{ina-} & \quad \text{sit'}
\end{align*}

The plosive onset to Umbuygamu nasals, which developed in the above fashion, is now being lost. In the speech of the elderly Mrs Salt, the plosive can always be perceived. In that of Mr Bassini, some twenty years her junior, the lenition of the plosive to a voiceless nasal is quite common, hence:
In the speech of Mesdames Liddy and Gunnawarra, nasals from this source are optionally lengthened in citation forms, but the length entirely disappears in discourse, hence

*waŋar > akŋar > 'devil'

Leaving the nasals now, and turning again to the total sequence of historical rules which affected Umbuygamu phonology, we find a rule of *U Copying. I have argued elsewhere (1976a) that this rule is the first of a sequence of two rules, the net result of which is familiar to us as metathesis.

*kulan > uluán 'possum'
^kuta > utuá 'dog'
*wuna- > utnuá- 'lie'

*U Copying contributes to the gross effect of metathesis when the original initial u suffers subsequent deletion. Verbs evidence metathesis consistently; other categories attest it according to phonological environment. Note the form of the verbs in the sentence following:

# luán lalāŋan, qulálán lalaŋan. #
'poured we it covered we it'
'We poured some (water in, and) covered it up.'

and compare the form for 'two' in the pair of sentences below:

# ʔuáɾ xaŋin ya, iŋa #
two caught I fish
# ya xaŋin uʔuáɾ, iŋa #
'I caught two fish.'

These same rules — *U Copying and *U Deletion — combine to effect metathesis in other Princess Charlotte Bay languages, in some of which the specification of the affected vowel is more general (Sommer 1976a).

* * *

It is these rules which most obviously alter canonical word shapes into Umbuygamu. For completeness sake, however, several other rules will be mentioned. First is a rule that derives a from *i or *u in V2 position, as in

*kuŋira > uʔuáɾ 'two'

Now this rule can be shown to follow *U Copying. An important constraint on the copying rule is imposed by the phonological character of *V2. If both *V1 and *V2 are *u, then the rule is prevented from applying. So then the stem *wuŋul 'mosquito' would not have met the
conditions of *U Copying in Umbuygamu, but at this time can be safely assumed to have had the form *ukôngal. The rule

\[ V \Rightarrow \text{[-high]} / C \]

followed, giving ukôngal, as found in contemporary Umbuygamu. If this rule had applied prior to *U Copying then the \( V_1 = V_2 \) constraint would not have applied, and the contemporary form would have been ukôngal. But there is no evidence for this ordering.

Another rule derived voiced stops from homorganic sequences of resonant + plosive, with deletion of the continuant or nasal as the first member of the proto-cluster:

\[ \text{*} \nu \text{ntaR} \rightarrow \text{ağar} \ 'tongue' \]
\[ \text{*} \text{malta} \rightarrow \text{da-} \ 'climb' \]

Voiced reflexes of Proto Paman stops also appear following original long vowels

\[ \text{*ma:} \nu \text{uR} \rightarrow \text{ağar} \ 'pelican' \]

Voiceless reflexes of Proto Paman stops appear elsewhere:

\[ \text{*} \text{kta} \rightarrow \text{a} \text{ja} \ 'rotten' \]
\[ \text{*yapa} \rightarrow \text{apay} \ 'older sister' \]

Sequences of a lateral or rhotic plus stop were reduced by deletion of the stop, unless as in the case of *lt, the sequence fell under the previous rule.

\[ \text{*} \text{kalka} \rightarrow \text{a} \text{la} \ 'spear' \]
\[ \text{*yi:} \text{rka} \rightarrow \text{ira-} \ 'speak' \]

The reason for such a rapid review of these rules is that the previous ones, especially those that concern nasals, pose the vexing question. Umbuygamu shares with the Central Paman languages the sequence of rules which resulted in preploded nasals, and with the languages of the Bay area those rules which effect the metathesis of initial vowels - in this instance *u. Is therefore this language properly Central Paman, with evidences of influence in its phonological development from the Bay languages, or vice versa?

To place the question in perspective, it must be clear that the preploded nasals of Umbuygamu and Central Paman languages are simply one variant of the compensatory development for loss of length in \( V_1 \) evinced by Proto Paman nasals in \( C_2 \) position, and that the Bay languages share in that development but evince different variants of it - voiced stops in Bariman Gutfingma, and postploded nasals in Lamalama. The difference
between Central and Bay languages is therefore in the precise form that was taken by nasals in the compensatory development for loss of length in V₂. The development of nasals in this fashion is limited to the Central Paman group and the Bay languages; it is distinctive of the two groups within the Peninsular language family.⁴

In other words, common nasal developments place the "Lamalamic" languages of Laycock's 1969 study in an ancient-order language group with the Central languages, possibly not far distant from Proto Paman itself. If this is so, then there are important and unavoidable implications for a theory of domestic phonological development and innovation within Cape York Peninsula. The popular contention (Capell 1956, Wurm 1972a) that the Peninsular languages owe their phonological oddities to Papuan linguistic influence has yet to be supported by any irrefutable evidence, and Wurm (1972b) is now more cautious about this claim. The counter evidence is beginning to take more definite shape: not only are the phonological changes of the Peninsula being attested elsewhere in the continent, remote from Papuan influence, but the Peninsular languages themselves are posing awkward questions to this theory. For example, why did languages south of Princess Charlotte Bay, inland almost to the opposite coast and south to Normanton and Georgetown, and back again as far as Petford, show rich phonological innovation yet the more accessible sea-faring fishermen of both north-east coast (Guugu Y'aa'u) and north-west coast (Wig Munggan) comprise the extremities of a bloc of highly conservative languages ranged right across the Peninsula? Or why can these phonological innovations not be traced in Mabuiag, the most patently accessible of all Australian languages? Now we can add: the "Lamalamic" languages share gross phonological changes with a bloc of languages which are much less accessible to "foreign" linguistic influence, so could it be that this, and other changes, are in fact "domestic" after all? The entire issue deserves a more rigorous examination.

Turning now to phonological evidence for the classification of Umbuygamu, we find only one other rule is shared by it with another language; it has in common with Lamalama a version of the consonant cluster reduction rule.

<table>
<thead>
<tr>
<th>Umbuy.</th>
<th>Lama.</th>
</tr>
</thead>
<tbody>
<tr>
<td>*kaika</td>
<td>ala</td>
</tr>
<tr>
<td>*yi:rika</td>
<td>iia-</td>
</tr>
</tbody>
</table>

This is a relatively insignificant rule, affecting as it does only a very small proportion of the lexicon (though it may account for the appearance of l in these languages, by reduction of earlier *ICV sequences).
For more crucial evidence it is necessary to turn from phonology to morphology, syntax and lexicon. In doing so, we will represent the Central Paman subgroup by Igaranggal and Ogh Uŋđan, and compare Umbuygamu with both these and the Bay languages.

3. MORPHOLOGY

The nominal morphology of each of the languages shows the typical Paman pattern: Agentive, Instrumentive and Locative postpositions coincide in phonological shape. All except Ogh Uŋđan have the unmarked form /aw/, with a small number of stems manifesting /l/ or /iy/ as suffixes. Ogh Uŋđan, one of the Central Paman languages, has the form /aβ/, but #aw# is derived by rules from certain stems, and I have suggested elsewhere (1976b) that both /aw/ and /aβ/ can be traced to a common source in *mpu.*

The morphology of other surficial cases is more definite evidence. The Central Paman languages do not differentiate Dative and Allative from Purposive morphology; the suffix is /ay/. Umbuygamu joins the Bay languages in having -ma/-a for the Dative, and -ra/-a for the Purposive. In the Ablative, Umbuygamu shares -m/-am with Lamalama, and Ogh Uŋđan -ŋin parallels Bariman Gutinhma -ŋan.

Turning from the nouns to the verbs of these languages, we find that Umbuygamu shares with the coastal languages the same aspectual morphology:

<table>
<thead>
<tr>
<th>Present</th>
<th>Future</th>
<th>Past</th>
<th>Pluperfect</th>
<th>Imperative</th>
</tr>
</thead>
<tbody>
<tr>
<td>-m</td>
<td>-y</td>
<td>-n</td>
<td>-r</td>
<td>-l</td>
</tr>
</tbody>
</table>

Ogh Uŋđan on the other hand has two conjugations, and has an Irrealis in lieu of a Pluperfect:

<table>
<thead>
<tr>
<th>Present</th>
<th>Future</th>
<th>Past</th>
<th>Irrealis</th>
<th>Imperative</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>-lγ</td>
<td>-n</td>
<td>-ŋeryγ</td>
<td>-ŋ</td>
</tr>
<tr>
<td>II</td>
<td>-Rγ</td>
<td>-n</td>
<td>-ŋeryγ</td>
<td>-ŋ</td>
</tr>
</tbody>
</table>

Verb morphology is much less stable in the Peninsular languages than are the case postpositions; nevertheless Umbuygamu shows closer correspondence to the Bay languages than those of the Central subgroup on the sample offering most direct comparison. Shared alternations between l, r and n in Ogh Uŋđan and Umbuygamu appear occasionally in Agentive, Instrumentive and Locative use however, but may be traceable to some ancient rank of proto-language within Paman, much as the phonological rule concerning nasals must be so imputed. Syntactic evidence provides better criteria.
4. SYNTAX

Much of the syntax of the Paman languages varies little from language to language, with SOV the unmarked order, free pronouns usually following the verb, and morphology typically "ergative". The typological criteria for classification are therefore among the less apparent syntactic structures, but will support the emerging picture above. For example, most Central Paman languages have a Negative Imperative (Proscriptive)

```
# NEG₁ # Verb Stem + Imper.#
```

where the negative is some reflex of *kaRi 'not'. A second negative — usually idiosyncratic to the language — appears to negate declarative propositions. Only Ogh Uńdan and Igaranggal disturb the pattern of Negative Imperatives with

```
# NEG₁ # Verb Stem + n #
```

where n is homophonous with the marker for Past Definite Action. But the Bay languages have the structure

```
# NEG₂ # Verb Stem + y #
```

where y may be the Future aspect marker. The negative in this instance is derived from *Camă. Reflexes of *kaRi appear in all the Bay languages, but never in Proscriptive formulae. These facts suggest some irregularity of Proscriptive structure early in the history of these languages, but suggest even more strongly the unity of Umbuygamu with the other languages.

Auxiliary verbs provide some of the firmest typological criteria. The Central Paman languages universally attest an auxiliary verb which functions in reciprocal and reflexive constructions, and to which aspectual morphemes are suffixed. Contemporary languages suggest the reconstruction *irpa- or *irpi-; the form is /iβ/ in Ogh Uńdan:

```
ondu-w etw-r-iβ-0
scrub-L copulate-REFLEX-PRES they 2
'They are copulating in the scrub.'
```

No parallel exists in the Bay languages:

```
ŋa mo-m lua (Umbuygamu)
REFLEX copulate-PRES they 2
ɖa dengenga-m luo (Bariman Gutinhma)
ŋda muan-a-m lua (Lamalama)
```

Reciprocal/reflexive structures in these languages simply do not depend upon verb morphology at all.
The auxiliary /amba-/ 'cause', common to the Central Paman languages, is also missing from the Bay group. The function of /amba-/
can be well seen from its use with Ogh Urdan /ilŋŋa-/ 'break', which
is intransitive. Hence

alk ilŋŋi-n
spear break-PAST
'The spear broke.'

but

alk ilŋŋ-ambi-n el
spear break-cause-PAST he
'He broke the spear.'

The differences between transitive and intransitive uses of 'break'
are effected in the Bay languages by different verbs:

<table>
<thead>
<tr>
<th></th>
<th>Umbuygamu:</th>
<th>Lamalama:</th>
<th>Bariman Gutinha:</th>
</tr>
</thead>
<tbody>
<tr>
<td>break (intr)</td>
<td>gua-</td>
<td>tua-</td>
<td>ilŋga-</td>
</tr>
<tr>
<td>break (tr)</td>
<td></td>
<td>ndopə-</td>
<td></td>
</tr>
</tbody>
</table>

Similar patterns emerge for pairs such as 'fall' and 'drop' (= 'cause
to fall'), 'return' and 'bring back' (= 'cause to return'). There is
therefore a major cleavage between the Bay languages and the Central
Paman subgroup when auxiliaries are considered. There is also a con­
sequent difference in vocabulary structure.

Pronouns constitute the final syntactic criterion; both Bay and
Central Paman languages differentiate eleven basic person-number
forms, but each group treats these forms distinctively. The Central
languages assemble pronouns in the order

# Verb# # Nominative pronoun# # Oblique/Genitive Pronoun#.

These pronouns are free forms; the interesting feature being the pos­sibility of a final Genitive form.

alk egŋŋəŋ amba-r inəŋ adeŋ
spear break-cause-PAST you-mine
'You broke my spear.' (Oykangand)

The Bay languages share this possibility – a fact that Laycock (1969:
81) grappled with without success – but the nominative and whatever
pronoun follows are phonologically fused:

la nduapa-n ta-daw
spear break-PAST you-mine (Lamalama)

There is another difference too in that the relative order
nominative/oblique-genitive

is reversed in certain sequences where a first person pronoun would be placed in final position. Compare therefore

\[1a \quad \text{ma'at-} \quad \text{luna-} \quad \text{r} \]

\[\text{spear return-IMP ours-you} \]

'You bring back our spear!' (Lamalama)

and

\[\text{ama-} \quad \text{utua-pi} \quad \text{maran-} \quad \text{na-} \quad \text{la} \]

\[\text{man-A dog-COM chase-PAST me-he} \]

'The man with the dog chased me.' (Umboygamu)

but Central Paman (Oykangand):

\[\text{i'naa} \quad \text{ar-} \quad \text{r} \quad \text{il} \quad \text{adun, iyarangal} \]

\[\text{aunt-A hit-PAST she me hard} \]

'Aunty hit me hard.'

5. LEXICON

The effect of the auxiliary amba- 'cause' on the economy of vocabulary among the Central Paman languages is already evident. It correlates with an entirely different vocabulary structure amongst the Bay languages. But there are other differences, too. The Bay dwellers' livelihood depends upon the tides and what they expose or bring to the multiplicity of reefs, channels and creeks of that area. Consequently the vocabulary is centred on that rich marine and estuarine environment. The Central Paman communautés have no access to such an environment at all, but depend just as crucially on the annual monsoonal flooding of the great western rivers: the Mitchell, the Alice, the Coleman and the Nassau— and of course vocabulary reflects this different life-style of subsistence pattern. Even the categories defined by the noun classifiers are different.

The figures confirm the coherence of the Central Paman pair (59%) but place the remaining languages in no clear contrasting subgroup. Umboygamu shares 47% with Lamalama; this figure confirms the relationship already suggested by shared phonological developments. Bariman Gutfinhma stands equidistant from the neighbouring Lamalama and the not-too-distant Igaranggal. The languages intervening geographically between Bariman Gutfinhma and Igaranggal are poorly attested and need more attention — it is quite conceivable that intervening cognate densities could indicate that the two languages comprise segments of a typical "dialect chain" (O'Grady et al. 1966:10-4).

The important conclusion is however that Umboygamu relates much more closely to Lamalama (47%) than it does to any other language under discussion (24-25%).
The 100-item list of "central" or "core" vocabulary items completed by O'Grady (Sommer 1969:61) provides a matrix of shared cognates as follows:

<table>
<thead>
<tr>
<th></th>
<th>Ogh U</th>
<th>Ika</th>
<th>BG</th>
<th>Umb</th>
</tr>
</thead>
<tbody>
<tr>
<td>59</td>
<td>30</td>
<td>25</td>
<td>18</td>
<td>LL</td>
</tr>
<tr>
<td>32</td>
<td>24</td>
<td>21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>32</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The figures nevertheless correct an erroneous impression created by Laycock's opening sentence:

The three languages here grouped as "Lamalamic" are called "Bay Paman" by O'Grady and Voegelin [sic] (1966), a name that is rejected here on the grounds that these languages apparently show a very low cognate density with Paman languages, if the Proto Paman reconstructions by Hale (published in Sommer 1969) are any criterion. (1969:71)

The fact is that Hale's reconstructions depended on only thirty of the Peninsular languages — perhaps a third of those we know existed — and not all reconstructions are attested by reflexes in each subgroup. When compared with contemporary daughter languages of Proto Paman, the "Bay" or "Lamalamic" languages are much less extraordinary. The shared cognates for Umbuygamu and Lamalama itself suggest that these are closely related languages, and the percentages for Bariman Gutinhma are not unexpected in view of the figures available for other pairs of geographically contiguous Paman languages (see Sommer 1969:12 for example). There is much more precision needed in assigning reconstructions to various well defined ranks of the proto-language, and in determining the limits of that proto-language — both tasks to which this paper is ultimately addressed.

6. CONCLUSION

Despite the prima facie case for assigning Umbuygamu to the Central Paman subgroup on phonological grounds, a fuller investigation of historical phonology, its morphology, syntax and core vocabulary leave no doubt that it is a "Lamalamic" or "Bay" language, closely related to Lamalama proper. This should not obscure the fact that the "Bay" and Central languages developed from some intermediate order of proto-language, in which a nasal strengthening rule appeared. Developments since that time require that perhaps three subgroups should be proposed: the Central Paman, Bay Paman and Waric Paman (to subsume Bariman Gutinhma with Roth's (1898) Koko Wara under the one rubric). There appears to be no compelling case yet for excluding Laycock's "Lamalamic" languages from any "Paman" group.
1. The support of the Australian Institute of Aboriginal Studies is gratefully acknowledged. I have enjoyed discussions of Umbuygamu data with Paul Black and profited from participants' comments on an earlier draft read to the 1975 Annual Conference of the Linguistic Society of Australia.

2. Irwin Howard suggested to me that these developments might be traceable to metathesis and deletion, after the following stages:

\[ *m > bm > mb > b \]

but there is as yet no evidence to bear on this question. If this proposal can be sustained it would draw the Central and Bay (or Lamalamic) languages together more decisively in some deep ranking protolanguage within the Paman group.

3. But not, it would seem, in \( u\)nua- 'lie'; perhaps the preploded nasal inhibits the rule as #CC clusters are not attested in Umbuygamu.

4. Paul Black is working on a language (Walgamaha) attested only in the writings of anthropologists and early settlers, which appears to share the nasal preplosion development without being necessarily a clear member of either Central or "Lamalamic" subgroups. His findings are awaited with some interest.

5. In which *C represents some as-yet-unidentified initial consonant.
UMBUYGAMU: THE CLASSIFICATION OF A CAPE YORK PENINSULAR LANGUAGE

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RELATIVE LOCATION OF THE TRADITIONAL TERRITORIES
IN CAPE YORK PENINSULA CLAIMED BY SPEAKERS
OF LANGUAGES MENTIONED IN THE TEXT
Mr Bob Bassini of Coen. Of the handful of remaining Umbuygamu speakers, Mr Bassini's knowledge and understanding of the language is probably the best. Photographed at his home in 1972.
TENSE-MARKING IN GUNU PRONOUNS

S.A. WURM, L. HERCUS

I. Introduction
II. The Gunu Language
III. Differences between Southern Ba:gandji and Gunu
IV. The position of Ba:rundji
V. Aspect Markers in Gunu
VI. Pronouns and Tense
VII. Note on Ba:rundji pronouns
VIII. Conclusion

I. INTRODUCTION

The intricacies of genetic relationship and linguistic diffusion in Australian languages are as yet not fully understood. The odd similarities between languages even far apart are tempting and may mislead us into thinking that we can explain any unusual phenomenon in one Australian language in terms of what we know of another Australian language: we may imagine that there is nothing really unique. Tense-marking in the pronouns of Gunu is of particular interest from this point of view; there is nothing exactly like it elsewhere in Australia though there are some rough similarities as in Pitta Pitta where pronouns are marked for the future tense (Blake and Breen 1971), in Lardil (Hale 1967) and probably in Murawari (Oates 1976). This unique feature of the Gunu pronoun has aroused R.M.W. Dixon's suspicion and he states the following in his review in Language 52/1, March 1976), of S.A. Wurm's work The Languages of Australia and Tasmania:

W[urm] uncritically repeats grammatical misstatements that originated in the 'amateur literature'; in no case has any attempt been made to check original sources and re-examine
a controversial problem. Thus W[urm] (83, 133) follows Capell 1956 in believing that 'in some of the dialects of the Darling Group, the initial consonant of the personal pronouns undergoes change for tense; e.g. in Kurnu the first person singular pronoun forms for present, past and future are  naïgu, wagu and gaju.' This originated with Mathews 1904. Mathews was a surveyor and amateur linguist who gathered material on a considerable number of Australian languages between 1897 and 1912; he frequently doctored his field notes for publication and, as Schmidt (24) warned, all his work must be treated with caution. An examination of Mathews' notebooks (the existence of which was certainly known to W[urm] - see p.14) reveals that what Mathews described as inflection of pronouns for tense was in fact the operation of a phonological sandhi-type rule. The canonical forms for tense morphemes appear to have been PRES -₃ naïgu-, PAST -₃ gaw-, FUT -₃ rag-; the pronominal subject normally followed the verb, and its initial consonant would be dropped after a tense-final consonant. We thus have bulga-₃ naïgu 'I am hitting', bulga-₃ gaw-₃ gaju 'I hit (past)', and bulga-₃ rag-₃ gaju 'I will hit'. There is no alternation in the initial segment of any pronoun when it follows a vowel-final word, or occurs sentence-initially.

The present paper is intended to show that this view is untenable and that Guçu pronouns are indeed marked for tense and are thereby a striking and very unusual characteristic of this language.

II. THE GUÇU LANGUAGE

Tense-marking in pronouns was found by R.H. Mathews to be a feature not only of Guçu (1904) but also of the south-eastern sub-dialect of Ba:rundji, bordering immediately on Guçu (Mathews MS.). Both Guçu and Ba:rundji are dialects of the Ba:gandji language of the Darling River of N.S.W. Knowledge of the Ba:gandji dialects has declined dramatically and tragically over the last few decades to the point of extinction. In 1957 S.A. Wurm was able to record grammatical data from speakers of Pooncarie Ba:gandji, Wiljagali, Guçu, Bandjigali and particularly Ba:rundji. His main informant, the last speaker of the language, was then living at Wilcannia; she was Mrs Hannah Quayle (Maljalari) a Maljaqaba-Waŋgumara half-caste from the Salisbury Downs-Yancannia area. She spoke Maljaqaba as her first and main language, but had learnt Ba:rundji as a child, and also used it daily in the late fifties when some of the materials presented here were recorded by S.A. Wurm. She was then around eighty-five years of age. L.A. Hercus started working extensively on Ba:gandji dialects in 1964 and was able to work with the last speaker of Bandjigali and with people who had a good knowledge of Southern (Pooncarie) Ba:gandji. Wiljagali was then already extinct. Mrs Quayle (Ba:rundji) had died in 1965, and Guçu became extinct in February 1976 with the death of the last speaker, the centenarian
Grannie Moisey. Many of her grand-daughters had long been grandmothers and she was respected and feared throughout the Aboriginal Community of the northwest of N.S.W. She was born a half-caste, Annie Clarke, and was reared by her maternal grandparents who knew hardly any English. In her early childhood she was camped under the wild orange trees near where Gundabooka Station was just being built. In her long and hard life she witnessed the total decline of the traditions in which she had been reared and saw her own people 'forgetting all the language and marrying their own relations (people of the same moiety)'. 'Guçu is the same as Ba:gendji (i.e. Pooncarie Ba:gandji) but it is different, it's my people's talk, from Louth along the river', she used to say.

III. DIFFERENCES BETWEEN SOUTHERN BA:GANDJI AND GUÇU

Guçu vocabulary is practically identical with Southern Ba:gendji from the Pooncarie area, over 95 per cent of the vocabulary is shared by the two dialects. The speakers were conscious of this and commented repeatedly on the few differences that there were: e.g. George Dutton (Bandjigali dialect of Ba:gandji, 1967): 'We say yanmala when we talk about breaking something, but that old woman (Grannie Moisey, Guçu) says yanmala ηaba and that means that she is going away'. Despite the great similarity in vocabulary there were two major differences in the pronoun system between Southern Ba:gendji on the one hand and Guçu on the other:

1) Pronominal forms are affixed in Southern Ba:gendji but not in Guçu.
2) Tense is indicated by verbal affixes in Southern Ba:gendji and by pronouns in Guçu, where verbal affixes play only a limited role in marking tense.

(1) In Southern Ba:gendji the possessive markers were identical in form to free pronouns with loss of the initial consonant. They were affixed to a noun denoting the third thing possessed, case marking affixes could then be added:

\[\text{yunga } \text{gi:ra - (a)yi - na} \]
\[\text{own } \text{country - lsg.POS - LOC} \]
\[\text{yunga } \text{gi:rayina 'in my own country'} \]
\[\text{yabarayindu 'out of my camp'} \]
Only very rarely, in case of special emphasis was an independent pro-
nominal form used to indicate possession.

ŋayi gi:ra (S. Ba:gdj) 'my country'
ŋaga gi:ra (Bandjigali) 'my country'

But in Gunu possession was normally expressed by a full and independent
pronominal form.

gandja ŋari
grandmother mine
'my grannie'

ŋuma balu
your child
'your child'

waŋanja iɗuŋa
nest his
'its nest'

In order to lend special emphasis the pronoun can be repeated in Gunu.

ŋari yara-yara ŋari
mine things mine
'my very own belongings... (they stole).

The same distinction between the two dialects applies in nominal sen-
tences.

Ba:gdj ɲuːŋg(u) - aba
Ba:gdj woman - I
'I'm a Ba:gdj woman'

Guŋu baŋaga ɲaba
Guŋu woman I
'I'm a Guŋu woman'

(2) Tense in Southern Ba:gdj is expressed by special affixes, which
are added to a verbal root or verbal root and aspect marker.

The tense affixes are:

zero or -r- for the present
-d- for the future
-dj- for the past
-ŋugu- for the habitual and causal past
The incorporated subject and object pronouns followed that tense affix.

\[
\begin{align*}
\text{bami} & \quad \text{(i)ndu} \quad \text{ayl} \\
\text{see (tense)} & \quad \text{you AG} \quad \text{me OBJ} \\
\text{zero} & \\
\text{baminduayi [ba₇indo]} & \quad \text{you see me'} \\
\text{bami} & \quad \text{d - indu} \quad \text{ayl} \\
\text{see - PUT} & \quad \text{you AG} \quad \text{me OBJ} \\
\text{bamidinduayi [ba₇indo]} & \quad \text{you'll see me'} \\
\text{bami} & \quad \text{dj - indu} \quad \text{ayl} \\
\text{see - PAST} & \quad \text{you AG} \quad \text{me OBJ} \\
\text{bamidjinduayi [ba₇indo]} & \quad \text{you saw me'}
\end{align*}
\]

There is thus in Southern Ba:gendji a verbal complex as follows:

verb root (± aspect) + tense ± subject ± object

In Gunu as explained below, the situation is different, and in any case, pronouns maintained their independence and were not usually incorporated:

\[
\begin{align*}
\text{ŋindu \ ŋa:na} & \quad \text{daḍa} \quad \text{na} \\
\text{you AG} \quad \text{me OBJ} & \quad \text{block} \quad \text{PART} \\
\text{you're blocking me'}
\end{align*}
\]

IV. THE POSITION OF BA:RUNDJI

The Ba:randji dialect spoken by Mrs Quayle is of particular interest. Though it has some minor characteristics of its own, in the important issues under discussion it is half-way between Gunu and Southern Ba:gendji.

1) Ba:randji goes with Southern Ba:gendji in affixing pronominal forms in both the nominal and verbal system.

2) Tense-marking by verbal affixes is optional (not obligatory as in Southern Ba:gendji) and the pronoun subject is affixed, but the pronoun marker changes with tense and there are a number of morphophonemic rules that may be observed in the juncture.

V. ASPECT MARKERS IN GUNU

R.M.W. Dixon, interpreting the evidence of Mathews, quotes:

\[
\begin{align*}
\text{bulga - ŋuna \ ŋaḍu} & \quad 'I \ hit' \quad \text{(present)} \\
\text{bulga - ŋgaw \ aḍu} & \quad 'I \ hit' \quad \text{(past)} \\
\text{bulga - raq \ aḍu} & \quad 'I \ shall \ hit' \quad \text{(future)}
\end{align*}
\]

Mathews often writes 'u' for a. The Ba:gendji word 'to hit' is balga- and 'ŋuna' represents - ŋana.
-ŋana- is a stem-forming suffix used occasionally in Gunu to mark a
continuative and present day action - it is not a simple tense marker
for the today present, which is expressed otherwise:

bidja - na ŋina ŋi:ŋa
outside  LOC  we PRES  sit

'we're sitting outside' (today, right now)

The following examples may illustrate the use of -ŋana-:

qindu - ŋali wayu - ri -ŋana
PRES you - we two worry - Inceptive - TODAY-CONT

'the two of us are worrying all the time now'

(winbadja) mu:ya-ŋana '(the people are) rowing all the time'
yu:gu ŋa:rila-ŋana 'the sun is just now going down...'

-ŋana is a special aspect marker: there is no chance of analysing it
as *ŋanaŋ in any of its occurrences, still less is there any chance of
a 'sandhi effect' on a pronoun. It would be correct in Gunu to say

balga-ŋana ŋaːgu
or
ŋaːgu balga-ŋana

This sentence would mean 'I'm all the time hitting...'

-ŋga- is interpreted by Mathews as a tense marker of the past. It is
a perfective-intensive stem forming affix. Like -ŋana- it is limited
in its use.

bari 'to go'
bari-ŋga 'to go away'
yuri 'to listen'
yuri-ŋga 'to understand'

Again there is no evidence whatsoever that might enable us to interpret
this affix as ŋgaw-, nor is there any 'sandhi effect' on pronouns.

-ra

There is a stem-forming suffix -la used throughout the Ba:gandji
dialects; this has a number of complex functions, mainly that of top-
icaising

bami 'to see'
bami-la 'to look'

When a verb-stem contains -l- there is a tendency for dissimilation and
-ra is used for -la, unless another aspectual affix intervenes:
TENSE-MARKING IN GUNU PRONOUNS

TENSE-MARKING IN GUNU PRONOUNS

'gulba' 'to tell'
'gulba-ra' 'to talk'
'malba' 'to throw'
'malba-ra' 'to toss something around, to act in a silly fashion'

*balga-ra* is therefore used instead of *balga-la* 'to strike'.

Again there is no means of analysing, -la, -ra as *-lag-, *-rag-.

The suffix can topicalise any tense, though it is possibly more common with the future.

\[
\text{dayi- la gali miriga-na} \\
\text{eat - TOP PUT we two first-LOC} \\
\text{dayila gali mirigana 'we two shall eat first'}
\]

\[
\text{mu:ya - la wali} \\
\text{quarrel - TOP PAST we two} \\
\text{mu:yala wali 'we two had a row'}
\]

\[
\text{dayi - la nadı} \\
\text{eat - TOP PRES they} \\
\text{dayila nadı 'they're eating'}
\]

\[
\text{diga - la wagu} \\
\text{return - TOP PAST he} \\
\text{digala wagu 'he came back'}
\]

Again there is no question of sandhi.

There are a number of other aspectual and 'action type' markers in Gunu - some difficult to analyse, they are all independent of both tense and pronoun.

VI. PRONOUNS AND TENSE

Pronouns in Gunu vary with the tense. The present (and also the general neutral form) is marked by an initial ٪- (zero in the case of the demonstrative pronoun of vicinity), the future is marked by an initial ٪- and the past by initial ٪. The materials collected in Gunu in the field allow the following paradigmatic tables of tense forms of the pronouns to be set up:
On the whole except in cases of special emphasis, only one pronoun in a sentence receives a special tense form; it is usually the subject or the pronoun referring to the main topic. The other pronouns retain their present/neutral form. The pronoun subject usually follows the verb, but as the examples quoted below will show, the system of tense-marking cannot be linked immediately with the verb in Gunu. Even if the changes in the pronoun had their origin in phonological conditioning it seems clear that in the present form of the language they have to be analysed as changes for tense. This can be demonstrated in the following manner:

a) The pronouns are not linked with any particular phonological environment, they can follow any verb or verb + aspect marker; and different tense forms can occur in the same conditions:

1) After all simple verbs

<table>
<thead>
<tr>
<th>Baridji</th>
<th>Ri</th>
<th>Gani</th>
<th>Gaba</th>
</tr>
</thead>
<tbody>
<tr>
<td>far away</td>
<td>ALL</td>
<td>go</td>
<td>FUT I</td>
</tr>
</tbody>
</table>

'I'll go a long way off'

Gani wadi
go PAST they
'they've gone'

(Ba: rundji, like S. Ba:gandji, has igi, not igi as a pronoun of vicinity)
TENSE-MARKING IN GUNU PRONOUNS

nataldi mani bami wina
many corroboree see PAST we
'we've seen lots of corroborees'

mandi -na ga:ndara bami gindu
ground -LOC blood see PAST you AG
'you'll see the blood on the pavement'

bami nadi
see PAST I AG
'I can see'

iba gadi badi -ri
lay FUT they egg -DAT
'they'll lay eggs'

iba wina
lay PAST we
'we put it down'

11) after verb + aspect marker (such as -ri and -la, examples for the latter are given in section V)

gila dingga -ri waba
not rise -INC PAST I
'I didn't get up'

gila dingga -ri nadi
not rise -INC PAST he
'he's not getting up'

bina -ri gimba
climb -INC FUT you
'you'll climb up'

b) The pronouns, marked for tense, can follow words other than verbs:

wilga -wilga nadi
hungry PRES they
'they're hungry'

diga -la gadi gi:ra gidi -na miri
Return -TOP FUT they country FUT this -GEN towards
'they'll go back to their country'

gandjalga nu:ngu widi -na
good woman PAST this -GEN
'he had a good wife'
c) In isolated instances and in order to focus on the subject, the pronouns were placed initially in an utterance, and this naturally precludes any possibility whatsoever of explaining the changing initial consonant of the pronoun by means of sandhi; the changing initial simply expresses tense:

\[
\text{mu:ya wadu wimbara -na: 'windu gaba -nja mai numa'} \\
\text{scold PAST I AG daughter -LOC: 'PAST you AG follow -CONT man yours'}
\]

'I roused on my daughter (and I said to her): "You've been running after this man of yours (while I have been minding the kids)".'

\[
\text{wadu ga:ndi ba\-ju-balu} \\
\text{PAST he carry small-child}
\]

'it was him that carried the small children'

The following two instances of pronouns beginning an utterance were heard in conversations between Grannie Quayle (Ba: rundji) and Grannie Moisey (Gu\-nu):

1) Mrs Quayle: \[\text{daya:gu (< dayi gadu) wanga eat-} \text{I eat} \text{ FUT I AG meat} \]

'I'll eat the meat'

Mrs Moisey: \[\text{gadu dayi FUT I AG eat} \]

'I'm the one that's going to eat it'

2) and in answer to a question as to who ate it

Mrs Moisey: \[\text{wadu dayi PAST I AG eat} \]

'I was the one who ate it'

The fact that pronouns change with tense in Gu\-nu is thus proved by

a) the free use of all pronominal forms in identical environments after verbs and verb + aspect marker;

b) the occurrence of pronouns after adjectives and nouns;

c) the occurrence of pronouns initially in an utterance.

VII. A NOTE ON BA:RUNDJI PRONOUNS

The Ba: rudji dialect spoken by Mrs Quale differs from the Gu\-nu dialect mainly in the following features:

1) Some words differ in their phonological form, e.g. the demonstrative pronoun of vicinity is i\-gu (Gu\-nu i\-gi); the nominative plural of demonstrative and third person pronouns is formed by the addition of a further suffix -iga.

2) The subject pronouns are suffixed to the verb and morphophonemic changes affecting both the pronominal forms and the final vowel of the verbs are in evidence.

3) The same tense-marking verbal affixes as in Southern Ba: gandji
are optionally used in Ba:rundji as is seen from some of the examples quoted, and so tense may be marked both by the verb and by the pronoun.

The purpose of this paper is the demonstration and illustration of the changes of pronouns in two Ba:gandji dialects for tense. This is therefore not the place for a detailed discussion of the morphophonemic phenomena observable in the Ba:rundji material, but a few remarks may be given on them:

With past pronoun forms
the first syllable of the pronoun is dropped after verb-final -u or -i, e.g.

baribu:li (< baribu-wall) 'we two came'
manju yanma-ya-du (< yanma-ya-wagu) 'he broke his arm'
ba:rayi-ji-du (< ba:rayi-ji -wag) 'I heard'

After verb-final -a and -ayi (which changes to -aya [-aye] when a pronoun is added), -a in the first syllable of the pronoun changes to -u, e.g.

ŋulja-wu: (< ŋulja-wagu)
’dayu-wu: [daye-wugu] (< dya-wagu)

With present and future pronoun forms
verb-final -a and -u become -a:, and the initial syllable of the pronoun is dropped. Verb-final -ayi becomes -aya:, e.g.

waga:-du (< waga-gagu) 'I will chop'
ŋuljamalda:-du (< ŋulja-da -da du)
wash-verbaliser-REFL-PRES he
he can wash himself'
manju yanma-la:-du (< yanma-la -gagu) 'he will break his arm'
break-TOP-PUT 3sg.

When preceded by a consonant subject to non-phonemic gemination (a typical feature of a number of consonants in Ba:gandji), verb-final -i remains unchanged, and the initial consonant of the pronoun is dropped, e.g.

bami-a:gu [bami-a:gu] (< bami-gagu) 'I will see'

Therefore in all these cases the distinction between Present and Future has been obscured and we simply have a Fast/Non-past distinction. There is, however, one group of verbs that form an exception to this: Verb-final -i preceded by a consonant not subject to non-phonemic gemination becomes -i:, and the pronoun remains unaltered, e.g.

bari:-ga:li (< bari-gali) 'we two will go'

Examples illustrating the use of a single pronoun (or pronominal derivative):

minamandi ŋimba baribu waŋa:ga 'why did you come here?'
why neutral thou come FAST here
Tense marking through more than one changeable pronoun:

dulaga gidiga (< gidu-iga) wimbadja-ru balga-nda:-di:ga bad
<br>kill-ASP-FUT they-pl. we two-OBJ 'those bad men will kill us two'
gidu-wu:lu wimbadja-u:lu balgu gulbanjala:-du:lu
<br>FUT-this du. man-du. speech 'these two men will talk (with each other)'

Examples of sentences with a single suffixed changeable pronoun only:
wimbadja-nu:lu badanaga:gu:lu (< bada- nga-gadu:lu)
<br>man two fight INT FUT they two 'the two men will fight'
bugamala-wudu gambidja-ayi galjbu
die PAST he father -my not now 'my father died a long time ago' (galjbu indicates 'non-present': past or future)
galjbu diga-la:-ba (< diga- la- gaba)
not now return-TOP-FUT I 'I will return later'

VIII. CONCLUSION

The manner in which pronouns change with tense in Gunu is of interest not only because it is unique to Gunu: it poses further questions. The morphological differences between Gunu and S. Ba:gendji are considerable and not confined to pronouns:

<table>
<thead>
<tr>
<th></th>
<th>S.Ba:gendji</th>
<th>Gunu</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Personal possession markers affixed</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>2. Pronoun subject and object incorporation</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>3. Tenses marked only by affixes</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>4. Pronouns may vary for tense</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>5. (Non-obligatory) ergative marking of nouns</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>6. (Non-obligatory) ergative marking only on demonstrative pronouns affixed to nouns</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>7. Bound morpheme for allative</td>
<td>+</td>
<td>-</td>
</tr>
</tbody>
</table>

Yet the vocabulary of Southern Ba:gendji is almost identical to that of Gunu. By lexicostatistical evaluation therefore Gunu and S. Ba:gendji are dialects of the same language but a more thorough grammatical and general evaluation (as described by Dixon 1970) would leave us with grave doubts on this topic.
For the speakers there was no doubt at all: Gunu was a form of Ba:gandji. People do not normally speak more than one dialect of the same language: thus nobody ever claimed in our hearing to speak both Gunu and S. Ba:gandji, there was no need as Gunu was felt to be a form of Ba:gandji. George Dutton, the last speaker of Bandjigali, was a brilliant man (Beckett 1958) who knew Maljaŋaba, Wąngumara, Yandruwaŋa, and Arabana and often talked about these languages but he did not speak Gunu. He would often converse with Mrs Moisey, but he would talk in Bandjigali and she in Gunu; they agreed to differ, as to them it was all Ba:gandji anyway. The most common observations by S. Ba:gandji speakers about Gunu were of a phonetic nature: 'they speak heavier', 'they speak broader'; some observations concerned the few lexical items that differed. We still have much to learn, not only about the genetic affiliations of Aboriginal languages, but also about language perception and evaluation. The Gunu example seems to point towards the importance of lexical similarities rather than morphology with regard to what was felt to be a different language and what was a dialect.
SPECIAL ABBREVIATIONS

AG  Agentive case
ASP  Aspectual affix
CONT Continuative
INC  Inceptive
INT  Intensive
PART Participial form marking continuous and contemporary action
TOP  Topicalising verbal affix

Note: For simplicity ndj has been used throughout for njdj.
TENSE-MARKING IN GUṈU PRONOUNS

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Looking across towards Ba:rundji country from the McCulloch Range.
Recording Southern Ba:gendji (1964).
The late Gladys Smith with her family and L. Hercus.
TENSE-MARKING IN GUṈU PRONOUNS

Maljaları (Mrs Hannah Quayle) (Ba: rundji) at Wilcannia in 1957.

Mrs Elsie Jones (Southern Ba: gandji) in foreground with the late Grannie Moisey, the last GuṈu (1972).
The genetic relationship between Australian Aboriginal languages is notoriously complex, and the north-east of South Australia is no exception. The languages of this area are often referred to as 'Lakes Languages' (Capell 1963). On the basis of similarity and differences in morphology and syntax these languages can be subdivided into the following main groups:

1. *Arabana* - *Waŋgaŋuri*, formerly spoken to the west and north of Lake Eyre
2. The *Diyaŋi* - *Yandruwaŋa* group, spoken mainly to the east of Lake Eyre, and comprising the subgroups:
   a) *Diyaŋi*, *Ḍiraŋi*, *Namini*, *Yaḻuyandi*
   b) *Yawarawarga*, *Yandruwaŋa* and *Biladaba*
3. The *Yuṟa* - *Miṟu-Yaṉi* group consisting of:
   a) *Guyanit*, *Adnjamaŋa* to the south of Lake Eyre,
   b) *Baŋgaŋa*, *Nugunu*, *Yaḏjurĩ*, *Naraŋa* and *Kaurna*,
   c) *Yaḏliyawara* and *Maljaŋaba*.

This classification differs slightly from that given by Schmidt (1919), by O'Grady, Voegelin and Voegelin (1966) and Wurm (1972). The point of the present paper is not to justify this genetic classification, but to show how regional affiliations cut across genetic boundaries.

There are numerous mythological and ritual links between the tribes in this area. The Wiljaru cicatrisation ceremony was known over a large portion of the region, though it took different forms - among the Biladaba there was no actual cicatrisation and marks were simply painted. 

57
Numerous myths crossed tribal boundaries, usually though not always travelling in a north-south direction. The longest song cycle of all was probably the Urumbula or Native Cat cycle, which came from Aranda country to Pt Augusta and then returned crossing through Bangala, Guyani and Arabana country. The Grinding Stone Myths from Arabana, Wangaŋuru and Namini country are linked with Mt Termination (in Guyani territory). The Whirlwind travelled through Arabana and Guyani country to the Diyari, and there are well-known Dog myths that connect Arabana and Diyari sites with the south (Elkin 1934). The Yawarawarga, Yandruwarra, Diyari and Namini all took part in the Mindaŋi corroboree - these are just a few examples of the vast network of mythological tracks that crossed the country and which were of the deepest significance. There were also important trade links: men travelled from as far as the Simpson desert to the red ochre mine near Parachilna in Adnjamaŋaŋa country and the grinding stone quarries at Sunny Creek (Arabana) and Charley's Swamp (Guyani) supplied most of the Lake Eyre basin.

With such a complex system of links it is not surprising that:

a) there should be some linguistic diffusion

and that

b) this diffusion should be varied in its extent and focus.

Two examples of this diffusion have been reported earlier: the pre-stopping of nasal and lateral consonants (Hercus 1973) and the use of special pronoun forms linked with the kinship system (Hercus and White 1974). Both these traits show the maximum elaboration in Adnjamaŋaŋa and Guyani and this was probably their focus of diffusion. There are certain other very noticeable features that cross the linguistic boundaries in this region, such as the dissimilation of the second nasal (in a word) when there are two consecutive nasal + plosive clusters (ganga-da from *gaŋga-ŋga). The traditional cognate counts in vocabulary cannot give a true picture of this linguistic situation as the diffusion affects more systematic features of language rather than mere vocabulary. Similar situations have been noted elsewhere in Australia, particularly by G. Heath (1975). The present paper gives just one series of examples which shows the hidden semantic links that cross linguistic boundaries.

The three authors noticed independently in the languages which they were studying (Hercus - Adnjamaŋaŋa, Wangaŋuru and Guyani, Austin - Diyari and Piraŋi, Ellis - Adnjamaŋaŋa) that there was a curious "suffix" at the end of words denoting certain body parts, such as 'eye'. It became clear that this 'suffix' was in fact a word meaning 'fruit', gaŋgi in Arabana-Wangaŋuru, ţand'fa in Diyari and Piraŋi, gaga in Guyani; though ţga in Adnjamaŋaŋa did not have this meaning. Later it was found
that all these words, apart from meaning 'fruit' also meant 'olitoris', and this was the only meaning of the Adnjamada word əga.

**EXAMPLES**

The following tables set out the data for the three language groups. Table 1 comprises entries referring to parts of the body, Table 2 objects in nature and Table 3 edible plants. This system emphasises the recurring entries between language groups even where the forms are not cognate: for example Table 2 contains 'rainwater', 'money' and 'bullets' in all languages.

**Table 1: Diyaři and Qiraři**

<table>
<thead>
<tr>
<th>Compound</th>
<th>English</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. maña- gündfa</td>
<td>head</td>
<td>maña - unknown in Diyaři, occurs as mañu 'forehead' in Waŋaŋuru</td>
</tr>
<tr>
<td>2. milgi- gündfa</td>
<td>eyeball</td>
<td>milgi - eye</td>
</tr>
<tr>
<td>3. maña- gündfa</td>
<td>tooth</td>
<td>maña - mouth</td>
</tr>
<tr>
<td>4. ʂama- gündfa</td>
<td>woman's breasts</td>
<td>ʂama - breast</td>
</tr>
<tr>
<td>5. baŋga- gündfa</td>
<td>knee, patella</td>
<td>baŋga - knee</td>
</tr>
<tr>
<td>6. gału- gündfa</td>
<td>testicles</td>
<td>gału - male privates</td>
</tr>
<tr>
<td>7. giša- gündfa</td>
<td>olitoris</td>
<td>giša - vulva</td>
</tr>
<tr>
<td>8. gadi- gündfa</td>
<td>Lake Eyre</td>
<td>gadi - skin</td>
</tr>
</tbody>
</table>

**NOTES:**

a) The name for Lake Eyre is associated with a legend concerning the origin of the lake. Elkin (1938, p.244) gives an account of this legend. The Diyaři name Gadi-γundfa is used throughout the area, though the legend is Arabana.

b) For 'eyeball' Yaŋuyandi has milgi- günda and for 'tooth' maña- günda.
Table 1: Arabana and Wangguru

<table>
<thead>
<tr>
<th>Arabana Compound</th>
<th>Wangguru Compound</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. mildja-gedi</td>
<td>milgi (gadi)</td>
<td>eye</td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td>milgi - eye</td>
</tr>
<tr>
<td>4. nama-gedi</td>
<td>nana-gedi</td>
<td>deceased</td>
</tr>
<tr>
<td></td>
<td></td>
<td>mother's brother</td>
</tr>
<tr>
<td>5. banana-gedi</td>
<td>mana-ga-dgi</td>
<td>deceased</td>
</tr>
<tr>
<td></td>
<td></td>
<td>mother's brother</td>
</tr>
<tr>
<td>6. mana-adi</td>
<td>mana-ga-dgi</td>
<td>testicles</td>
</tr>
<tr>
<td>7. gadi</td>
<td>gadi</td>
<td>clitoris</td>
</tr>
<tr>
<td>8.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. mambu-gadi</td>
<td>mambu-ga-dgi</td>
<td>elbow</td>
</tr>
<tr>
<td>10. gudna-gadi</td>
<td>gudna-ga-dgi</td>
<td>intestines</td>
</tr>
<tr>
<td></td>
<td></td>
<td>gudna - excrement</td>
</tr>
</tbody>
</table>

NOTES:
Nama-gedi is probably connected more directly with Wangguru ama 'mother' (nama): loss of the initial velar nasal is prevalent in Arabana-Wangguru. Such a connection is common in words meaning mother's brother, e.g. Adnjamaaga-Guyani ōama 'mother', ōama 'mother's brother'. The connection between ōama-gedi and ama is particularly interesting as it indicates that the use of gadi to form compound nouns preceded the loss of the initial velar nasal.

Table 1: Guyani and Adnjamaaga

<table>
<thead>
<tr>
<th>Compound</th>
<th>Adnjamaaga</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>mina-aga</td>
<td>mina-aga</td>
<td>eye</td>
</tr>
<tr>
<td>gaga</td>
<td>yundjuru-aga</td>
<td>nose</td>
</tr>
<tr>
<td>ga-lu-gaga</td>
<td>indi-aga</td>
<td>clitoris</td>
</tr>
<tr>
<td>gulga-gaga</td>
<td>aгля-aga</td>
<td>testicles</td>
</tr>
<tr>
<td></td>
<td>yulga-aga</td>
<td>heart</td>
</tr>
<tr>
<td></td>
<td>yalda-aga</td>
<td>sweet meat from the calf muscle</td>
</tr>
<tr>
<td>ōama-aga</td>
<td></td>
<td>hollow in tree where birds nest</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ōama - breast</td>
</tr>
</tbody>
</table>

NOTES:
1. Guyani mina-aga may be a loan word from Adnjamaaga since we would expect to find ōmina-gaga as the Guyani form. It is interesting to note that Schürmann (1844, p.30) gives menakaka under the entry mena 'eye' but fails to translate it. We would suggest that the word is mina-ga-dgi meaning 'eyeball'.
2. There appear to be no cognates for these terms in Kaurna (see Teichelmann and Schürmann (1840) or Maljagaba (Hercus fieldnotes)) containing (g)aga.
Table 2: Diyari and Điraţi

<table>
<thead>
<tr>
<th>Compound</th>
<th>English</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>mađa-gandžra</td>
<td>money</td>
<td>mađa - stone</td>
</tr>
<tr>
<td>diŗgi-gandžra</td>
<td>grain of sand</td>
<td>diŗgi - rough sand</td>
</tr>
<tr>
<td>guļa-gandžra</td>
<td>piece of stone chisel</td>
<td>guļa - flint adze chisel</td>
</tr>
<tr>
<td>milgi-gandžra</td>
<td>piece of unburnt ocre</td>
<td>milgi - unburnt ocre</td>
</tr>
<tr>
<td>gaŗgu-gandžra</td>
<td>piece of red ocre</td>
<td>gaŗgu - red ocre</td>
</tr>
<tr>
<td>maru-gandžra</td>
<td>piece of black ocre</td>
<td>maru - black ocre</td>
</tr>
<tr>
<td>ฏaba-gandžra</td>
<td>rainwater</td>
<td>ฏaba - water</td>
</tr>
<tr>
<td>долa-gandžra</td>
<td>raindrops</td>
<td>долa - rain</td>
</tr>
<tr>
<td>mađaburu-gandžra</td>
<td>hailstones</td>
<td>mađaburu - hail</td>
</tr>
<tr>
<td>digi-gandžra</td>
<td>stars</td>
<td>digi - sun</td>
</tr>
<tr>
<td>magida-gandžra</td>
<td>bullets</td>
<td>magida - rifle (borrowed from English &quot;musket&quot;)</td>
</tr>
<tr>
<td>miřga-gandžra</td>
<td>ants' eggs</td>
<td>miřga - ant</td>
</tr>
</tbody>
</table>

Table 2: Arabana and Wanganuru

<table>
<thead>
<tr>
<th>Compound</th>
<th>English</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>guğa-gaği</td>
<td>rain water</td>
<td>guda - water</td>
</tr>
<tr>
<td>gaşa-gaşi</td>
<td>money</td>
<td>gadna - stone</td>
</tr>
<tr>
<td>guldji-gaşi</td>
<td>rifle bullets</td>
<td>guldji - round stone, bullets</td>
</tr>
<tr>
<td>magidi-gaşi</td>
<td>star (this word also means 'mushroom')</td>
<td>magidi - rifle</td>
</tr>
<tr>
<td>gaşi-bila</td>
<td>mythological serpent</td>
<td>margara - crawling</td>
</tr>
<tr>
<td>gaşi-margara</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOTES:

gadi-margara is an Arabana term, yet it was mainly used in Diyari and Điraţi. The legend of the gadi-margara belonged to the whole area: a Guyani story tells of the 'stranger snake with the pretty markings' that was killed near Curdimurka in Guyani country, named after the event. As shown in Table 1 the Diyari term Gadi-gandžra 'Lake Eyre' is used throughout the area, particularly in Arabana, and the Arabana term gadi-margara 'mythological serpent' is used in Diyari (in Arabana and Wanganuru the common term for the same creature is ganmari): this emphasises the mythological unity of the area.
Table 2: Guyani and Adnjamaŋaŋa

<table>
<thead>
<tr>
<th>Compound</th>
<th>Guyani</th>
<th>Adnjamaŋaŋa</th>
<th>English</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>gawi-gāga</td>
<td>awi-āga</td>
<td>rain water, big drops of rain</td>
<td>(g)awi - water</td>
<td></td>
</tr>
<tr>
<td>gadnja-gāga</td>
<td>adnja-āga</td>
<td>money</td>
<td>(g)adnja - stone</td>
<td></td>
</tr>
<tr>
<td></td>
<td>magidi-āga</td>
<td>bullets</td>
<td>magidi - rifle</td>
<td></td>
</tr>
</tbody>
</table>

NOTES:
1. In Adnjamaŋaŋa this refers to a site in the Northern Flinders Ranges (South Australia) - a rock formation known as Depot Springs.

Table 3: Diyari and Đirari

<table>
<thead>
<tr>
<th>Compound</th>
<th>English</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>buga-gandřa</td>
<td>edible fruits</td>
<td>buga - vegetable food</td>
</tr>
<tr>
<td>wiřa-gandřa</td>
<td>seed of camel bush</td>
<td>wiřa - Acacia ligulata</td>
</tr>
<tr>
<td>malga-gandřa</td>
<td>seed of mulga tree</td>
<td>malga - Acacia aneura</td>
</tr>
</tbody>
</table>

NOTES:
buga gandřa refers to such seeds and fruit as ɲadu (Marešia Drummondii), ganggalři (sweet millet (sp.?)), mafuguŋga (?), yawa (grass onion) and muga (native cotton bush).
Table 3: Arabana and Wangaŋuru

<table>
<thead>
<tr>
<th>Arabana</th>
<th>Wangaŋuru</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>bidigadi</td>
<td>bidigadi</td>
<td>edible seed of Portulaca oleracea</td>
</tr>
<tr>
<td>manjuru-gadi</td>
<td></td>
<td>manjuru - Portulaca oleracea</td>
</tr>
<tr>
<td>galgu-gadi</td>
<td>galgu-gadi</td>
<td>seed of Acacia Victories (Gundabluery)</td>
</tr>
<tr>
<td>gađi-bila</td>
<td>gađi-bila</td>
<td>mushroom, broom-rape (Crobanche australiana)</td>
</tr>
</tbody>
</table>

NOTES:

gađi is most commonly used for the two kinds of seed listed, but it can refer to other seeds and fruit not only of Acacias (e.g. mandara gađi, seed of Acacia ligulata) but also of quite different plants such as gudnambara gađi, seed of Ecnhylaena tomentosa. It is however always distinguished from bawa 'flour', i.e. grass seeds and the seeds of Cruciferae. The term gađi was also naturally not used for some other important fruits and seeds which had their own specific name, such as waļiya box-tree seed and uljuguljuga, the seed of wanjira (Nitriaria schoberti). It shows something of the insight into plant life that mushroom and broom-rape, both plants without chlorophyll should have the same name. The same word also means 'star' (Table 2). None of the Arabana or Wangaŋuru speakers could assign any meaning to -bila.

Table 3: Guyani and Adnjamaŋa

<table>
<thead>
<tr>
<th>Compound</th>
<th>Guyani</th>
<th>Adnjamaŋa</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>mayl-űga</td>
<td></td>
<td>the native pregnant</td>
</tr>
<tr>
<td>-</td>
<td>minga űga</td>
<td></td>
<td>edible seed of Acacia</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>mayl - vegetable food</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>minga - Acacia species</td>
</tr>
</tbody>
</table>

CONCLUSIONS

The information contained in the above tables points, we feel, to the following:

1) the expression of certain concepts in the languages of the Lakes area is identical even across genetic boundaries
2) there are at least two possible explanations for these similarities:
   a) the expressions were independently created in each of the language groups
b) there has been linguistic borrowing at some time in the past, not of lexical items but of a semantic concept

The many important links, linguistic and other mentioned above suggest that the latter explanation is the more likely.

3) if semantic diffusion has taken place the existence of comparatively more examples in Dîyarî and Dîraî points to their being the probable source from which the other languages borrowed. The directions of borrowing then, appear to be different to those suggested for lateral and nasal prestoppping and special pronoun forms (source probably Adnjamaçaça).

4) we may speculate that the semantic concept which has diffused is the link between the shape of the clitoris and the shape of the other body parts, natural objects and fruits given compound names. The possibility that this is a reflection of a "folk taxonomy" has not yet been fully investigated.

5) genetic classification of languages and language groups cannot give an adequate picture of the intricate and complex relationships which existed between the people speaking the Lakes languages before the time of white contact.

NOTES

We employ the following symbols:

CONSONANTS

<table>
<thead>
<tr>
<th></th>
<th>Bilabial</th>
<th>Lamino-Dental</th>
<th>Apico-Alveolar</th>
<th>Lamino-Palatal</th>
<th>Apico-Domal</th>
<th>Velar</th>
</tr>
</thead>
<tbody>
<tr>
<td>stops</td>
<td>b</td>
<td>d, t</td>
<td></td>
<td></td>
<td>voiced</td>
<td>g</td>
</tr>
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<td></td>
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<td></td>
<td>voiceless</td>
<td></td>
</tr>
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<td>nasals</td>
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</tr>
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<td>continuants</td>
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</tbody>
</table>

VOWELS

<table>
<thead>
<tr>
<th></th>
<th>Front</th>
<th>Back</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>i</td>
<td>u</td>
</tr>
<tr>
<td>Low</td>
<td>a</td>
<td>ã</td>
</tr>
</tbody>
</table>
'FRUIT OF THE EYES'

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WURM, S.A.

'FRUIT OF THE EYES'

ABORIGINAL LANGUAGES IN THE NORTH OF SOUTH AUSTRALIA
The last speakers of their languages:
Murtee Johnny (dec.) (Strzelecki Yandruwanda)
Tom Bagot (S. Aranda)
Mick McLean (dec.) (Desert Wanga\ntu)

Mrs May Wilton (Adnjama\na)

In happier days—Alice, the Last Guyani, with her late husband, the last Namini rainmaker. Taken near Marree in 1960 by John Weightman of the Welfare Department.
Maudie Naylon (Yałuyandi)
Rock near Pigeon Box Hole in the Mundi Gorge area of the Flinders Ranges. This rock represents the ōga of the wife of the Wiljaru ancestor who travelled along the Frome (Vidni-miruna).
Kanyaka: Gadnya-āga
'rock'-āga