Descriptive and Comparative Study
of the Gunwingguan Languages,
Northern Territory

by
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This thesis was submitted in partial
fulfilment of the requirements for the
degree of Doctor of Philosophy in The
Australian National University
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DECLARATION

Except where otherwise acknowledged in the text, this thesis represents the original research of the author.

Joy Kinslow Harris
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PART I:

INTRODUCTION
1. LANGUAGE AREA UNDER STUDY

1.1. Location and Population.

The Australian Aborigine is a member of a nomadic hunting and gathering society. The area over which any particular language speaking group ranges is usually defined by water and food supplies, and by informal agreement between groups.¹ In Arnhem Land, Northern Territory, the traditional language territories are mainly located along rivers, creeks and the coast. As European settlement of the Territory increased, Aboriginal groups migrated towards centers of European activity, drawn by the desire for various 'goods' including processed food-stuffs, tobacco, the 'bright lights' (and for some in the early days there was the desire for opium, replaced recently by alcohol).² Missions, cattle and buffalo stations, and later government settlements also provided an incentive to the aborigines to concentrate their nomadic wanderings to a smaller area. As a result, today there are a number of language groups settled together, whereas previously they ranged over their own separate territories. Most of these groups still live a semi-nomadic life, and all of them maintain an emotional tie with their
traditional 'country' which is perpetuated in their religious observances.

The languages chosen for study in this paper are Gunwinggu, Gunbalang, Gundjeipi (hereafter referred to as Djepri), Gundangbon (referred to as Dangbon), Gundeyeekmi, Gundjawan (referred to as Djawan), Gunaviji, Mengeri and Gunmarung (referred to as Maung). The present-day and traditional territories of these languages are shown on Maps I and II, pages 23, 24. Other than the main areas of population featured on Map I, there are many cattle stations and towns where individual informants are living and which are not shown because they are irrelevant to a generalisation on language areas.

It is difficult to arrive at a concrete figure on the size of a language group because of the population shift resulting from the semi-nomadic activities in Arnhem Land. The following, therefore, is an approximation arrived at while working in the areas mentioned. The Gunwinggu at Oenpelli Mission are a relatively stable community of 250, with a shifting population at Goulburn Island of 15, at Maningrida 50 (including several local dialects),
at Bamyili 25, at Goodparla, Pine Creek and Mudginberry 25 altogether, totaling 365. There are about 100 Gunbalang speakers residing mostly at Goulburn Island and Maningrida, with smaller groups at Oenpelli, Mudginberry and around Goomadeer Creek. Djepmi is spoken by little more than 15 people scattered in three's and four's between Oenpelli Mission, Mudginberry, Goodparla and Pine Creek. Dangbon is still a very virile language whose speakers number 100 or more and who have maintained their nomadic life much more than any of the others in this study. The Dangbon people range from the upper Liverpool River down its length, west to the lower East Alligator River and down its length to the Katherine River and Bamyili. 4 Gunde'ynekmi is a small group allied to the Dangbon and situated primarily around Oenpelli Mission, about 15 in number. Djawan is also a virile language numbering about 75 to 100, the speakers living at Bamyili and Katherine. 5 The Gunaviji people live along the east bank of the Liverpool River and are one of the main language groups at Maningrida with at least 100 speakers. Mengerei will soon be an extinct language, for there is only one speaker at Oenpelli who remembers
her family speaking the language. There are two others who speak Mengerei but not as a first language. Maung is spoken mainly at Goulburn Island and along the coast opposite the Island, speakers numbering around 100. These figures are just to give an idea of the approximate size of the language groups and are not meant to be used as statistics.

1.2. Definition of Language Area.

According to the preliminary classification made by O'Grady and Voegelin's in 1966, the Gunwingguan family includes eleven languages. These eleven languages are sub-divided into six language groups, whose tribal territories range from the Gunwinggu in the northwest of Arnhem Land on the East Alligator River, east to the Rainbarngic on the Goyder River, south to the Yangmanic on the Roper River and back west to the Djauanic on the Katherine River. Not all of the languages within the geographical area encompassed by the Gunwingguan family are closely related to it, some of them yielding such low percentages in cognate comparisons as to form separate families. This preliminary classification of the area was made mostly on the basis of cognate
density calculated from Swadesh-type lists of 100 lexical items. Although many of the lists were collected by one or other of the researchers involved with the article and map, other lists were taken from materials gathered by other linguists, anthropologists and missionaries.

Capell, in 1956, compared the languages of this area in phonological and grammatical typologies. Grammatically, the languages were specified as prefixing or suffixing (pertaining to the person-markers bound to the verb), and as noun-classifying or non-classifying. Other structural typologies are discussed but are not definitive of family boundaries.

Vocabulary similarities are mentioned by Capell in his comparative studies but are not taken into account when grouping languages; also O'Grady and Voegelin's do not attempt to correlate their classification with the typological boundaries set by Capell. Therefore, some of the boundaries in these two studies overlap.

Other boundaries showing another dimension of relationship are set by the anthropologists in enumerating inter-tribal social interaction. Elkin,
Warner, the Berndt's, Hiatt and Maddock each have set down tribal relationships centered on ritual trading, peace and propagation ceremonies, kinship and marriage patterns. However, other than Capell's general work on Sociolinguistics, no one has attempted a linguistic study of this type in the area.

Extensive tribal interaction in Arnhem Land has given rise to wide-spread multi-lingualism. When contemplating a linguistic comparison which would ordinarily consider mutual intelligibility as a criterion of language relationship, multi-lingualism becomes a problem. Without expanding on its implication, it is worth mentioning as an aside that compensating for this problem has given rise to the use of 'neighbor intelligibility' rather than mutual intelligibility as a comparative criterion.

1.3. Choice of Languages.

When choosing the languages for this present study, which was begun in 1964, I did not have access to the classification published in 1966, so I chose languages along the boundaries set by Capell and further defined by the anthropological material cited
above. Once in the language area, questioning of informants provided other leads as to languages similar to their own, and locations where other speakers of the language could be found. Details of the relationships will be given as supporting evidence in the conclusion.

A descriptive analysis of the phonology and grammar of each of the languages in this study was beyond the scope of the paper, so the method of approach was to select a representative language for an analytical write-up which would be used as a frame for comparison of the remainder of the group. Since it is generally accepted that the phonologies of Australian Aboriginal languages are closely related, and even derive from a common grid,¹¹ (in Hale's Northern Paman study¹² and in Sommer's work on Kunjen¹³, what initially appeared to be exceptions have been reconstructed to the common grid) the more profitable comparisons remain to be done on the grammars of languages.

Since a preliminary grammar has been published by Oates on Gunwinggu itself¹⁴, my analytical write-up had to be on another language representative of
the Gunwingguan family. After my initial fieldtrip and a superficial perusal of the language data, I chose Gunbalang for this write-up because it is almost identical structurally to Gunwinggu and is still a virile language. (Several of the other languages in this study are more similar to Gunwinggu, but are not as virile as Gunbalang.) The bulk of the data for the Gunbalang grammatical analysis, which forms the frame for this comparative study, was collected on the subsequent fieldtrip.

1.4. Fieldwork Method.

The language material collected was according to the outline in the booklet "Linguistic Material for Fieldworkers in Australia" put out by the Australian Institute of Aboriginal Studies. This is a 500 item list including clauses and sentences. In addition, I recorded one or two short texts in each language except Gunaviji and Gunde'ynekmi.

When collecting the material, Gunwinggu was used as the contact language and 'situation elicitation' was used instead of 'translation elicitation' in order to obviate English-conditioned responses. To check
the language data, I followed a method suggested by Voegelin and Harris, where the informant or another speaker of his language translates his previously recorded vernacular material back into the contact language, with a time lapse between sessions.16

The additional data gathered in Gunbalang during the second fieldtrip was based on items isolated from texts.

2. DESCRIPTIVE METHOD

To facilitate a structural comparison of the Gunwingguan languages, the structural descriptive model set forth by Longacre in his Grammar Discovery Procedures is used.17 The tagmemic theory basic to this model proposes that language consists of three semi-autonomous, interlocking hierarchies: the phonological, lexical and grammatical.18 Each hierarchy is semi-autonomous in that a phonological sentence does not necessarily have the same shape nor does it necessarily determine the shape of a grammatical sentence. Yet the hierarchies are interlocking because each facet of a sentence - phonology, grammar, lexicon - must be present for meaningful communication.
Each hierarchy consists of graduating levels of significantly distinct structures, or patterns, which are in turn made up of series of constituents, or pattern points. The significantly distinct structures are referred to as syntagmemes, the constituents as tagmemes. A tagmeme represents both the functional point in the language pattern and the exponent or manifestation of that function, sometimes termed the 'slot' and its 'filler'. A syntagmeme on a lower level may manifest a tagmeme on a higher level, exemplifying the model of graduating levels. A syntagmeme on the lowest level of the grammatical hierarchy (e.g. the word) whose constituents or tagmemes are manifested by a less complex structure (e.g. a morpheme) would itself manifest a tagmeme in a syntagmeme on the next graduating level (e.g. the phrase).

Two syntagmemes are significantly distinct structures if "(1) they exhibit at least two structural differences relative to each other, and (2) if these differences are relevant either to both obligatory and optional tagmemes in the two strings, or to more than one obligatory tagmeme. Among the structural differences serving to establish hypertagmemic distinctions is transform potential."
For simplicity and clarity, each significantly distinct grammatical structure is written symbolically as a formula; each formula thus representing a summary of a learned language pattern. When used in conjunction with a phonological statement and lexicon, a formula produces terminal sentences when processed by the following three operations: \( R \) (reading), \( P \) (permutation) and \( E \) (exponents). 

The operation \( R \) produces a particular formula by: (1) retaining all symbols outside parentheses, (2) either retaining or not retaining symbols inside parentheses in any given reading, (3) superscript\(^2\) allowing one or two occurrences of the symbol in a given reading, and superscript\(^n\) allowing (theoretically) unlimited occurrences in a given reading, (4) finally, removing the signs and superscripts to leave a reading of the formula containing only symbols for tagmemes.

The operation \( P \) on a particular reading produces a reading of the symbols in an order other than the original.

The operation \( E \) on a particular reading replaces each of its symbols with the symbol and then the formula of one of its manifestations.
The three operations are carried out on the resultant reading until only functional morphemes and labels for major stem classes remain. A grammar which thus incorporates these three operations is both taxonomic and generative.

Much of this discussion is repeated in the introduction to Part II because the Gunbalang Grammar was published separately, and the method of its description had to be included.

3. COMPARATIVE METHOD

In *Towards a General Comparative Linguistics*, Ellis says "... just as descriptive linguistics is central to general linguistics, inasmuch as one needs to describe languages before doing anything else with them... so comparative descriptive linguistics is central to comparative linguistics, inasmuch as one needs to compare descriptions of languages before doing anything else comparative with them...". With the structural description of Gunbalang as a frame within which the languages under study are compared, the outline of this description forms the outline of the comparison. The descriptive method is tagmemic, presupposing a grammatical hierarchy of significantly distinct structures.
graduating from the smallest isolatable meaningful unit, e.g. the morpheme or word, through intermediary levels such as the phrase to the largest unit, which might be a discourse (for this description, the largest unit is the sentence; for the comparison, the largest unit is the clause). The comparative study will follow this outline, comparing the significant structures of each language on each grammatical level from the word through the clause.

Within each grammatical level there are significantly distinct structures separated on the criterion mentioned above in the descriptive method. Thus on each grammatical level, the comparison of the significantly distinct structures, which are called syntagmemes, would cover not only the structure of the syntagmeme but also the criteria for separation of the syntagmemes. It will be determined through the comparison whether each language makes the same distinction between levels, e.g. word, phrase and clause; between syntagmemes on each level, e.g. word: verb, noun, pronoun and modifiers; between functions within the syntagmeme, e.g. verb: subject, nucleus and tense. Each topic of comparison will be set out as a paradigm showing the example of the topic in each language.
The results of the comparisons will be tabulated and evaluated in the conclusion to show the extent of relatedness of these languages.

This comparison of grammatical structures is often referred to as a typological comparison. There is no time-depth involved in this type of synchronic comparison and its purpose does not include establishing genetic relationships between languages. Therefore, the result of the comparisons in this paper holds little formal implication for a theory of language change. The result does, however, form a basis of departure in determining which 'may' be daughter languages and which would, therefore, warrant further diachronic investigation.

The necessity of basing a comparison of formal meaning (or structure) on a correspondence in contextual meaning (or the 'situation of utterance') is pointed out by Halliday in his work on categories of grammar. To establish this foundation of contextual correspondence between the languages to be compared, I used two principles in gathering the language data: (a) establish the same 'situation' with each informant and elicit the language response, and
(b) have a bilingual informant translate the expression from Gunwinggu to his vernacular and check this translation back from the vernacular to Gunwinggu with another informant. Even with two controls, there are theoretical limitations, but as Ellis says "The assumption is made that the translation is 'good', or adequate for the purpose of the linguistic comparison: for practical purposes this may be verified by the opinions of bilinguals; theoretically of course the verification would demand the whole process of 'contextualization' over again." For this study, the
correspondence of the contexts is assumed to be verified for the practical purposes of the comparison.
NOTES

1. There is still controversy among anthropologists over the size of the groups and their cohesive nature, and on the boundaries and ownership of the territory over which they ranged. Now that the Aboriginal population of Arnhem Land is centralised in certain areas, the tribal boundaries and the size and constituency of the nomadic groups is not a major issue in a synchronic study of the languages.


3. When speakers of Gunwinggu refer to other language groups, the prefix gun- is used with the designation; whereas the speakers of the second language delete the prefix. Therefore, a speaker of Dangbon calls his
language Dangbon but a Gunwinggu speaker would refer to it as Gundangbon.

4. Capell refers to two separate language groups as Dangbon and Dalbon; O'Grady and Voegelin's include the two names in one language; and the informants working with me used the names interchangeably. It is likely that speakers of the language in a certain geographical area, e.g. the upper Liverpool River, prefer one pronunciation over the other and thus the same language collects several designations. In this paper the name Dangbon is used.

A. Capell, Some Linguistic Types in Australia, Oceania Linguistic Monographs No. 7 (1962), pp 185.


6. O'Grady and Voegelin's (1966) op. cit.


Berndt (1964) op. cit.


Maddock (1965) op. cit.


10. O'Grady (1966) op. cit.

11. K. Hale, "Toward a Genetic Classification of Australian Languages", mimeographed copy.

G.N. O'Grady, "The Extent of Phonological Diversity in 23 Australian Languages" (1962, mimeographed copy).

Capell (1956) op. cit.


12. O'Grady (1966) op. cit.


15. This booklet is available at the Australian Institute of Aboriginal Studies, Canberra, A.C.T.


18. ibid. p.7.


20. ibid. p.75.


23. Ellis defines several methods of structural comparison of languages, including 'systemic' and 'linear-textual' on p.18. In this paper, the comparison between functions within the syntagmeme is 'systemic' in that exponents of the functions are composed of 'open class'
items or 'systems' of pronouns, tense morphemes, etc. The comparison between syntagmemes on each grammatical level is a 'linear-textual' comparison of surface structure, although as Ellis defines the method it is a comparison of deep structure.


PART II:

PRELIMINARY GRAMMAR
OF GUNBALANG
MAP I

APPROXIMATE PRESENT DAY LANGUAGE TERRITORIES
MAP II

APPROXIMATE TRADITIONAL LANGUAGE TERRITORIES

DEPARTMENT OF GEOGRAPHY, SCHOOL OF PACIFIC STUDIES, A.N.U.
0. INTRODUCTION

0.1. Language

Gunbalang is the language spoken by approximately 125 Aborigines whose traditional country is located at the mouth of the Liverpool River in northern Arnhem Land, Australia. The majority of the language group follow a semi-nomadic existence based at Maningrida on the Liverpool River, and at Oenpelli Mission southwest of Maningrida. A small group has settled on Goulburn Island. There are three dialects delineated by the speakers, each dialect associated with a geographical locality in the traditional country.

Gunbalang is related to Gunwinggu, the majority of whose speakers reside at Oenpelli Mission, with others living at Maningrida, Goulburn Island and Bamyili. These languages are classified by Capell as multiple-classifying species of the prefixing genus. Capell has published the only other descriptive material on Gunbalang, in "Languages of Arnhem Land, North Australia".1

The language corpus for this analysis was collected at Oenpelli Mission in July 1965, Maningrida Settlement in November 1965 and at Goulburn Island in July 1966. The data includes several short texts and a 500 item list2 from non-English speakers, and paradigms based on this material and elicited from an informant with an understanding of basic English. All but the paradigms are recorded both on tape and in writing.

0.2. Descriptive Method

The following description of Gunbalang is based on the structural model set forth by Longacre in his Grammar Discovery Procedures.3 The tagmemic theory basic to this model proposes that language consists of three semi-autonomous, interlocking hierarchies: phonological, lexical and grammatical.4 Each hierarchy consists of graduating levels of
significantly distinct structures, or patterns, which are in turn made up of series of constituents, or pattern points. Two structures are significantly distinct if "(1) they exhibit at least two structural differences relative to each other, and (2) if these differences are relevant either to both obligatory and optional tagmemes in the two strings, or to more than one obligatory tagmeme. Among the structural differences serving to establish hypertagmemic distinctions is transform potential." In the grammatical hierarchy, with which this paper is concerned, the significantly distinct structures are referred to as syntagmemes, the constituents as tagmemes. A tagmeme represents both the functional point in the language pattern and the exponent or manifestation of that function, sometimes termed the "slot" and its "filler". A syntagmeme on a lower level may manifest a tagmeme on a higher level, exemplifying the model of graduating levels.

For simplicity and clarity, each structure is written symbolically as a formula. Each formula is a summary of a learned language pattern and, when used in conjunction with a phonological statement and lexicon, produces terminal sentences when processed by the following 3 operations: R (reading), P (permutation), E (exponents).

The operation R produces a particular formula by: (1) retaining all symbols outside parentheses, (2) either retaining or not retaining symbols inside parentheses in any given reading, (3) superscript allowing one or two occurrences of the symbol in a given reading, and subscript allowing (theoretically) unlimited occurrences in a given reading, (4) finally, removing the signs and superscripts to leave a reading of the formula containing only symbols for tagmemes.

The operation P on a particular reading produces a reading of the symbols in an order other than the original.

The operation E on a particular reading replaces each of its symbols with the symbol then formula of one of its manifestations.

The three operations are carried out on the resultant reading until only functional morphemes and labels for major stem classes remain. A grammar which thus incorporates these three operations is both taxonomic and generative.

0.3. Abbreviations and Symbols

The formula for a significantly distinct structure is written as follows:

Syntagmeme -> Tagmeme:filler (+Tag:<fill>)

The arrow is interpreted "to be read as..."; a capital letter signifies a slot or functional point, and a non-capital signifies a manifestation or filler on the lower levels of the hierarchy while higher levels are
represented by capitals; presence of parentheses indicates optional occurrence of the enclosed structure and absence of parentheses indicates obligatory occurrence; the colon reads "is manifested by..."; the angle brackets < > enclose a representative member of the designated manifestation; the + is a concatenation sign; a subscript delineates significant internal structure; the comma reads "or..." and the diagonal represents "and/or...".

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1. WORD LEVEL CONSTRUCTIONS

1.1. The Verb

Gunbalang is a predicate-centered language, for within the verbal manifestation of its predicate tagmeme are bound forms which express not only the subject of the action but also the seeds of an expanded clause. This feature of the verb sets it out as the nuclear tagmeme of a verbal clause, thus designating it as a minimal clause. The two formulas below graphically show how the meaning contained in the bound forms of the verbal manifestation of the predicate is amplified by the satellite or peripheral tagmemes on the clause level.

**Formal Statement**

\[
\begin{align*}
 v_{tr-pos} + s (+t_{pres}) + o + nu (+t_{pa}) (+as) \\
 T + ClPos + (T) (+S) (+O) + P (+M)
\end{align*}
\]

**Citation**

\[
\begin{align*}
 v_{tr-pos} + ka -pun -yon -portolji -ng -ki \\
 s:he -o:it-ankle -nu:twist -t_{pa}:did -as:probably \\
 'he probably twisted his ankle'
\end{align*}
\]

\[
\begin{align*}
 T:today S:I O:meat P:I-cook M:well \\
 'today I am cooking the meat well'
\end{align*}
\]

The verbal manifestation of the Predicate tagmeme may be classified in three quite different ways: (1) by the concord shown in the occurrence of affixes, i.e. the presence of an object requires a subject different from that which occurs when there is no object in the verb; (2) by the internal structure of the verb nucleus; (3) by the formation of the past tense.

**Formal Statement**

\[
\begin{align*}
 1. v_{tr-pos} + s_{tr-pos} (+t_{pres}) + o + nu_{tr} (+t_{pa}) (+as) \\
 2. v_{int-pos} + s_{int-pos} (+t_{pres}) + nu_{int} (+t_{pa}) (+as) \\
 3. v_{di*-pos} + s_{tr-pos} (+t_{pres}) + o + io + nu_{tr} (+t_{pa}) (+as) \\
 4. v_{ref} + s_{tr} + nu_{tr} + ref \\
 5. v_{neg} + s_{neg} + nu_{neg}
\end{align*}
\]

* di to be read as 'ditransitive'.
Statement of Exponents

1. \( s_{\text{tr-pos}}: <\text{jita}->, <\text{ngutu}-> \)
2. \( t_{\text{pres}}: <\text{yn}-> \)
3. \( t_{\text{pa}}: <\text{-ng}> \)
4. \( o: <\text{parra}->, <\text{purru}-> \)
5. \( n_{\text{tr}}: v_{\text{st}} \)
6. \( a: <\text{-ki}> \)
7. \( s_{\text{int-pos}}: <\text{nga}-> \)
8. \( n_{\text{int}}: v_{\text{st}} \)
9. \( i_{\text{o}}: <\text{marnayn}-> \)
10. \( r_{\text{ef}}: <\text{-yi}> \)
11. \( n_{\text{eg}}: <\text{ngarra}-> \)
12. \( n_{\text{eg}}: <\text{-ni}> \)

The \( s_{\text{tr-pos}} \) and \( o \) exponents are chosen according to the verb's being in the present or past tense. The following rules apply to this context-sensitive occurrence:

1. \( s_{\text{tr-pos}} + x + y + [ <\text{yn}-> ] \Rightarrow [ <\text{jita}-> ] + x + y + [ <\text{yn}-> ] \)
2. \( <\text{jita}-> + x + y + <\text{yn}-> \Rightarrow <\text{jita}-> + <\text{yn}-> + x + y \)
3. \( o + x + y + [ <\text{yn}-> ] \Rightarrow [ <\text{parra}-> ] + x + y + [ <\text{yn}-> ] \)
4. \( <\text{parra}-> + x + y + <\text{yn}-> \Rightarrow <\text{parra}-> + <\text{yn}-> + x + y \)

where \( x \) and \( y \) are any units in the syntagmeme, the square brackets enclose items which are read across in line with each other, and the \( \Rightarrow \) reads "is rewritten as...".

Reading of Formulas

The transitive positive verb syntagmeme is read as an obligatory occurrence of the transitive positive subject tagmeme manifested by a member of the affix class \( <\text{jita}-> \) optionally followed by a tense tagmeme manifested by affix \( <\text{yn}-> \), obligatorily followed by an object tagmeme manifested by affix class \( <\text{an}-> \) or \( <\text{pun}-> \) and/or \( <\text{yon}-> \), followed by the
obligatory nuclear tagmeme which is manifested by the verb stem, optionally followed by a tense tagmeme manifested by affix <-ng>, and finally followed by the optional occurrence of the aspect tagmeme which is manifested by affix class <-ki>. Only one of the optional tagmemes may occur at a time.

The intransitive positive verb syntagmeme differs from the above in three instances associated with obligatory tagmemes and in one instance with an optional tagmeme. According to Longacre's criteria, these differences are sufficient to separate the syntagmemes, since there are at least two structural differences, one of which involves the nuclear and/or obligatory tagmemes. The manifestation of the intransitive positive subject tagmeme by affix class <nga>- corresponds with the obligatory absence of the object tagmeme. Only one optional tagmeme may occur at a time.

The two structural differences which separate the negative verb from its positive counterparts are the manifestation of the negative subject tagmeme by affix class <ngarra>- and the presence of an obligatory negative tagmeme manifested by affix class <-ni>.

Although the Gunbalang tagmemic order is open to permutation on the phrase, clause and sentence levels, it is stable on the word level in the grammatical hierarchy. The verb manifests the predicate function on the clause level.

Internal Structure
1. Simple roots
   -ka 'to go'; -nayn 'to see'; -puyn 'to hit'; -woyn 'to return'.
2. Compound stems
   -mijpuyn 'to meet'; -ngaynka 'to come'; -ngaynwoyn 'to come back'; -yakpuyn 'to pour'.
3. Reduplicative stems
   a. Partial reduplication: -wowokja 'to whisper'
   b. Complete reduplication: -kulkkulk 'to run'.

In some of the compound and reduplicative stems, each morpheme is semantically identifiable, i.e. ngayn- has the meaning 'action towards speaker' and -ka has the meaning 'to go' so that in combination -ngaynka means 'to come'. However, the majority of these stems are a combination of a non-productive morpheme in unique occurrence with a morpheme which may occur elsewhere as a simple root, i.e. -puyn 'to hit' is a simple root which may occur with the non-productive morpheme -mij giving the combined meaning -mijpuyn 'to meet'.

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Tense Formation

Since the irregular verb stem endings can be described but not predicted through morphophonemic rules, they are more simply handled as verb stem allomorphs, the past tense affix occurring on the allomorph.

1. Past tense formed by addition of [ng]

a. Irregular verbs

<table>
<thead>
<tr>
<th>STEM, PRESENT TENSE</th>
<th>ALLOMORPH</th>
<th>PAST</th>
</tr>
</thead>
<tbody>
<tr>
<td>-lukluwa 'to frighten'</td>
<td>-luklu</td>
<td>-luklung</td>
</tr>
<tr>
<td>-laka 'to spear'</td>
<td>-lakwa</td>
<td>-lakwang</td>
</tr>
<tr>
<td>-jiyn 'to eat'</td>
<td>-jarra</td>
<td>-jarrang</td>
</tr>
<tr>
<td>-kali 'to pick up'</td>
<td>-kalu</td>
<td>-kalung</td>
</tr>
<tr>
<td>-kiyne 'to cook'</td>
<td>-kiyna</td>
<td>-kiynang</td>
</tr>
<tr>
<td>-pe 'to bite'</td>
<td>-peya</td>
<td>-peyang</td>
</tr>
<tr>
<td>-maje 'to pierce'</td>
<td>-maji</td>
<td>-majing</td>
</tr>
<tr>
<td>-ngunj e 'to tell'</td>
<td>-ngunji</td>
<td>-ngunjing</td>
</tr>
<tr>
<td>-pulume 'to break'</td>
<td>-pulumu</td>
<td>-pulumung</td>
</tr>
</tbody>
</table>

b. Regular verbs, [yn] replaced by [ng]

-1okwayn 'to jump' -lokwang
-1yawayn 'to search for' -yawang

2. Past tense formed by addition of [yn]

a. Irregular verbs

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<tr>
<th>STEM, PRESENT TENSE</th>
<th>ALLOMORPH</th>
<th>PAST</th>
</tr>
</thead>
<tbody>
<tr>
<td>-ka 'to go'</td>
<td>-kita</td>
<td>-kitayn</td>
</tr>
<tr>
<td>-pungu 'to swim'</td>
<td>-punga</td>
<td>-pungayn</td>
</tr>
</tbody>
</table>

b. Regular verbs

-1elkkuyi 'to work' -kelkkuyiyn
-1werrmi 'to be ill' -werrmilyn

3. Past tense formed by [yn] being replaced by [m]

-1puyn 'to hit' -pum
-1woyn 'to turn' -wom

4. Past tense formed by [yn] being replaced by [y]

-1nayn 'to see' -nay
-1nuyn 'to give' -nuy

5. Past tense formed by [yn] being replaced by [ngin]

-1kayn 'to bring' -kangin


Verbal Affixes

CLASS DESCRIPTION

<nga-> Intransitive positive pronoun subject, third order prefix

| a. nga- | 1st sg | nga-pumngurr 'I washed' |
| b. ngata- | 1st du/pl exc. | ngarrki-yuwa 'we-sleep' |
| c. ki- | 2nd sg | ki-yn-malakiya 'you-are-laughing' |
| d. ngunj- | 2nd du | ngunj-yurrpungu 'you 2-swim' |
| e. ka- | 3rd sg | ka-yn-ka 'he-will-go' |
| f. ka...parra- | 3rd du | ka-yn-parrayurrpungu 'they-will-2-swim' |
| g. ka...pata- | 3rd pi | ka-yn-pateyurrpungu 'they-will-3-swim' |

<marnayn-> Indirect object pronoun, first order prefix

marnayn- to/with another ka-putu-marnayn-purrjuwa 'he-other-them-for-tells a story'

<jita-> Transitive positive pronoun subject, fifth order prefix

a. See chart. subject, present tense <jita->
| b. | subject, past tense <ngutu-> |

<parra-> Transitive positive pronoun object, fourth order prefix

a. See chart. object, present tense <parra->
| b. | object, past tense <purru-> |

<pun-> Transitive positive noun object, second order prefix

pun- it ka-pun-portolji-ng 'he-it twist-ed (his arm)'

<yon-> Transitive positive noun object designated, first order prefix

a. janga- foot ka-pun-janga-portolji-ng 'he-it-his foot-twist-ed'
<p>| b. karlmu- ear | ka-karlmu-portolji-ng '...his ear' |
| c. mapul- neck | ka-mapul-portolji-ng '...his neck' |
| d. mil- nose | ka-mil-portolji-ng '...his nose' |
| e. mirr- hair | ka-mirr-portolji-ng '...his hair' |
| f. nguruntu- arm | ka-pun-nguruntu-portolji-ng '...his arm' |</p>
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<tr>
<td>g.</td>
<td>pirri- hand</td>
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<tr>
<td>h.</td>
<td>yon- ankle</td>
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**<yn->** Tense, positive, present, future, first order prefix to intransitive verb stems; third order to transitive verb stems

This tense morpheme occurs following the first syllable of the subject prefix, which in the case of plural subjects causes a discontinuous morpheme, i.e. kaynka 'he will go' but kaynparraka 'they 2 will go'. Its further occurrences may be seen on Chart I.

**<-ng>** Tense, positive, past, first order suffix

a. **-ng** Verb stems ending in -yn preceded by wa replace the -yn with -ng for past tense:
   -lokwa-yn 'to jump' + past + -lokwa-ng 'jumped'.
   Those irregular verbs which add -ng to their stem allomorph to form the past tense are listed above on page 7.

b. **-yn** Verb stems ending in -i add -yn to form the past tense:
   -kelkuyi 'to work' + past + -kelkuyi-yn 'worked'.
   The irregular verbs occurring with this tense marker are also listed on page 7.

c. **-y** Verb stems ending in yn- whose initial consonant is a nasal, replace the -yn with -y:
   -na-yn 'to see' + past + -na-y 'saw'.

d. **-m** Other verb stems ending in -yn replace this ending with -m:
   -wo-yn 'to turn' + past + -wo-m 'turned'.

e. **-ngin** One exception to the preceding rule is -ka-yn 'to bring' which forms the past tense by replacing -yn with -ngin: -ka-ngin 'brought'.

**<-ki>** Aspect, second order suffix to positive stems

Reflexive

a. **-yi** Verb stems ending in a vowel add -yi:
   -ngeme 'to paint' + Ref + -ngeme-yi 'to paint oneself'.
Charts I-IV show person and number of subject and object prefixes occurring with present and past verbs.

* 'yn 'past tense morpheme'

** ngate- 'we excluding you'
CHART III: OBJECT, PRESENT, AFFIX CLASS "parra-

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CHART IV: OBJECT, PAST, AFFIX CLASS "purru-

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<td>0</td>
<td>0</td>
<td>0</td>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td>you 3</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>they 3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

symbolizes Reflexive

∅  zero morpheme
CLASS

DESCRIPTION

Aspect: Reflexive (cont’d)

Most stems ending in a nasal consonant preceded by u, drop the nasal and replace u with i before adding -yi:
-pidlkpum 'to scratch' + Ref + -pidlkpi-yi 'to scratch oneself'; -yakpun 'to pour' + Ref + -yakpi-yi 'to flow (waterfall)'. Exception: -pippun 'to fill' + Ref + -pippu-yi 'to become full'.

One stem ending in a nasal consonant, retains the 'C' and adds -iyi: -tam 'to lie down' + Ref + -tam-iyi 'to lay oneself down'.

b. -ji

Reflexive emphatic, occurs in correspondence with the emphatic tagmeme in the pronoun phrase 3 E:
poyn piju 'oneself'; -pipimpu 'to draw' + Ref E + -pipimu-ji 'to draw on oneself himself'.

Affix <-ng> b. forms the past tense of the reflexive aspect, for both <-yi> a. and b. end in i:
-tam-iyi 'to lay oneself down' + past + -tam-iyi-yn 'to have laid oneself down'; -pipimpu-ji 'to draw on oneself-emphatic' + past + -pipimu-ji-yn 'to have drawn on oneself himself'.

c. Continuous

-ki -ngakping 'he is lapping' + con + -ngakping-ki 'he continues lapping'; -majiyn 'to pierce (shoot)' + con + -majiyn-ki 'to continue shooting'.

<ngarra->

Negative subject,
occurs as first order prefix to intransitive verb stems, and second order prefix to transitive. The 1st sg affix has an allomorph which occurs with past tense; the other affixes occur with both present and past tense.

a. ngarra-/ngayi- 1st sg ngarra-tenpulum-e 'I cannot-break it-pres'; ngayi-pu-ni 'I-hit it didn't'.

b. ki- 2nd/3rd sg ki-rriwo 'you won't-return'; ki-ngaynwo 'he isn't-coming back'.

c. ngarrak- 1st du/pl ngarrak-nikirrirrk 'we cannot-dress him'.

d. ngunu-15 2nd du ngunu-nikirrirrk 'you two cannot-dress him'.

e. ngutu- 2nd pl ngutu-nikirrirrk 'you three...'

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CLASS DESCRIPTION

<ngarra-> (cont'd)

f. kiparra- 3rd du kiparra-nikirrirrk 'they two...'

g. kita- 3rd pl kita-nikirrirrk 'they three...'

<-ni> Negative, third order suffix

a. Present tense. The majority are formed from the present positive stem and the few which are not will be designated.

(1) Verb stems ending in yn which is dropped to form the negative present: -puyn 'to hit' + neg + -pu 'not to hit'. Exception: -jiyn 'to eat' + neg + -ja-ng 'not to eat'.

(2) Verb stems which remain the same
   i. formed from present positive: -ngayi 'to hear' + neg + -ngayi 'not to hear'; -na 'to sit' + neg + -na 'not to sit'; -rram 'to bark' + neg + -rram 'not to bark'.
   ii. formed from past positive: -wokji-ng 'to have talk-ed' + pres neg + -wokjing 'not to talk'; -purrju-ng 'to have relat-ed (story)' + pres neg + -purrjung 'not to relate'.

(3) Verb stems whose past positive ends in ng which is dropped to form the present negative: -lakwa-ng 'to have spear-ed' + pres neg + -lakwa 'not to spear'.

b. Past tense formed from past positive stem -

(1) Verb stems ending in a nasal consonant other than m add -ni, with the articulation of the final 'C' conforming to the n: -wa-ng 'to have turn-ed it' + pa neg + -wa-ni 'did-not turn it'. Exception: -portolji-ng + pa neg + -portolji-ni 'did-not twist'.

(2) Verb stems ending in m add -a: -rram 'to bark' + pa neg + -rram-a 'did-not bark'.

(3) Verb stems ending in 'V' add -li to present positive stem: -warrmi 'to be ill' + pa neg + -warrmi-li 'was-not ill'; -pulum-e 'to break-pres' + pa neg + -pulume-li 'did-not break'.

Rewrite Operations on Formula of Gunbalang Verb

1. Formula of Gunbalang transitive-positive verb:
   \[ s_{tr-pos} \oplus (+t) \oplus +nu (+t) (+as) \]

2. \[ R = s_{tr-pos} : jlt \rightarrow t : yn \rightarrow o : an \rightarrow nu : vs_{tr} \]
3. \( E = <jita-> <yn-> <an-> vs_{tr} \)

4. \( R = ki- yn-Ø- -portolje \)

5. \( R = kiynportolje \ 'you twist it' \)

Numbers 4 and 5 are carried out with reference to lexical items given in the above text. Ideally one would refer to a cross reference dictionary of the language for lexical substitutions in carrying out rewrite operations.

1.2. The Noun

The structural feature of Gunbalang referred to by Capell when he termed it a "classifying" language, is the occurrence of four major and one minor group or class of nouns. Each group is identified by its occurrence with one of the following demonstrative adjectives: manta, ninta, nginta, ngonto and kenta; and by the correspondence between these demonstratives and the prefix on descriptive adjectives: manta corresponds to ma-/man-, ninta to na-, nginta to ki-/kin-, ngonto to ku-/kun-, and kenta occurs with some nouns from the ngonto group when there is no descriptive adjective.

The nouns may also be classified according to their internal structure and, in a limited number of instances, according to gender prefixes. Although three of the gender prefixes are homophonous with the above adjectival prefixes, there is no restriction of occurrence of ma- on a noun with ma- on an adjective.

Nouns manifest the H (head) tagmeme of the noun phrase syntagmeme described later in the paper.

\[ \text{Formula: } n + (g:<na->) + nu:ns \]

The noun construction is read as an optional gender tagmeme manifested by an affix from class <na-> followed by the obligatory nuclear tagmeme filled by a noun stem.

Concordance Classes

1. Those nouns which occur with the demonstrative manta in concord with ma-/man- on descriptive adjectives:

Example: manta poko mankukarlyung

dem: this n:point aji:long
'this long spear-point'

poko 'point'
jakukkuj 'beard'
jem 'lily root'
jitu 'native cat'
julurl 'fog'
karimu 'ear'
kojpur 'sinew'
kuntulk 'fighting stick'
kurtuk 'excrement'
lauk 'spear butt'
lurpi 'tree bark'
mapuj 'yam'
marlolorr 'spear shaft'
mawortort 'leaf'
maynon 'vein'
merre 'hair'
mirlak 'grass'
murlupiyn 'blood'
murrkarn 'fighting stick'
neyang 'food'
pirrikala 'boomerang'
pulwek 'grass seed'
weleyn 'path'
wiritj 'fire'
wurrkurtu 'rope'

2. nginta in concord with ki-/kin-
Example: nginta parramimpayn kinkukarlyung
dem: this n:woman aj: tall
'this tall woman'
parramimpayn 'woman'
jitperlperl 'rosella'
kalturrk 'kookaburra'
kanak 'sun'
kiwayuk 'shadow'
malangampepek 'centipede'
marrnapakarta 'goanna'
murlupiyn 'blood'
murrkarn 'fighting stick'
neyang 'food'
pirrikala 'boomerang'
pulwek 'grass seed'
weleyn 'path'
wiritj 'fire'
wurrkurtu 'rope'

3. ninta in concord with na-
Example: ninta manjawak nakukarlyung
dem: this n:knife aj: long
'this long knife'
manjawak 'knife'
jak 'red ant'
jaway 'dingo'
jitawurr 'orow'
kakikkapik 'paddle'
kekkek 'bone'
kipejek 'wing'
kornopolo 'wallaby'
kunpalin 'fat'
kurran 'full moon'
mangarangat 'sting ray'
mapurru 'throat'
marrnapakarta 'goanna'

4. ngonto in concord with ku-/kun-
Example: **ngonto ngak kunmak**

Dem: *this nitongue aj:good*

'this good tongue'

<table>
<thead>
<tr>
<th>Noun</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ngak 'tongue'</td>
<td>kunterpat 'kidney'</td>
</tr>
<tr>
<td>japlrrk 'basket'</td>
<td>kupartu 'sore'</td>
</tr>
<tr>
<td>julungpuj 'dust'</td>
<td>kuwalak 'stone'</td>
</tr>
<tr>
<td>kaptarina jurrpu 'fresh water'</td>
<td>kuyunu 'cloud'</td>
</tr>
<tr>
<td>karramalk 'stone axe'</td>
<td>lakay 'cave'</td>
</tr>
<tr>
<td>keyang 'tooth'</td>
<td>lorre 'earth'</td>
</tr>
<tr>
<td>kijirrkijirr 'summer'</td>
<td>mantulum 'mountain'</td>
</tr>
<tr>
<td>kojarre 'windbreak'</td>
<td>munpurrji 'bundle'</td>
</tr>
<tr>
<td>kunmolo 'tail'</td>
<td>nangarnpal 'cheek'</td>
</tr>
<tr>
<td>kunparntangan 'sea'</td>
<td>parnkapurrk 'thigh'</td>
</tr>
<tr>
<td>kunplt 'hand'</td>
<td>pitjkal 'finger nail'</td>
</tr>
</tbody>
</table>

**4a. kenta except when followed by an aj, then these nouns occur in class 4:**

Example: **kenta janga ngonto janga kunmak**

Dem: *this n:foot aj:good*

'this good foot'

<table>
<thead>
<tr>
<th>Noun</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>janga 'foot'</td>
<td>mapu 'chest'</td>
</tr>
<tr>
<td>kiwij 'skin'</td>
<td>marrkarli 'backbone'</td>
</tr>
<tr>
<td>kunkemejen 'elbow'</td>
<td>marturturt 'heart'</td>
</tr>
<tr>
<td>kunpotme 'back'</td>
<td>muynurr 'navel'</td>
</tr>
<tr>
<td>manpolo 'urine'</td>
<td>ngukmarnti 'palm'</td>
</tr>
<tr>
<td>mantimtay 'ankle'</td>
<td>perla 'calf of leg'</td>
</tr>
</tbody>
</table>

**Internal Structure Classes**

1. Simple roots
   - jem 'lily root'; malk 'digging stick'; muk 'fly'; kuyn 'kangaroo'; wayn 'armpit'; yuk 'bandicoot'.

2. Compound stems
   - ngukmarnti 'palm of hand' where nguk = belly
   - mayuwalmu 'blue tongue lizard' walmu = forehead
   - karramalk 'stone axe' malk = digging stick
   - karlmunungu 'horned animal' karlmu = ear.

3. Reduplicative stems
   a. Complete reduplication: willitwillit 'galah'; palmatpalmat 'wet season'; kekkek 'bone'; kijirrkijirrk 'summer'; kapikkapik 'paddle'.

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b. Partial reduplication of initial or final syllable: purr purr kang  
'dilly bag'; parrawijwij 'children'; jiperlipirt 'rosella'.

c. Complete reduplication of stem following gender prefix:
   kunjorlokjorlok 'soak hole' where kunjorlok = creek
   marturturt 'heart'
   mawortwort 'leaf'.

Gender Classes

1. na- masc
   napuk 'male person'
   nawalak 'male baby'
   nawayuk 'male shadow'
   nawulam 'whirlwind, spirit'

2. ngal- fem
   ngalpuk 'female person'
   ngalwalak 'female baby'
   ngalwayuk 'shadow'
   ngalwulam 'female spirit'

3. ma-
   mawayuk 'shadow'

4. ku-
   kuwalak 'small stone'

As was mentioned in the introduction, there are some words whose ini­
tial syllable is the same as the gender prefixes, but whose remaining
stem does not occur elsewhere in such a form to prove that the prefix is
a designation of gender. Some such words are:

- nawortoworteken 'lightning'
- nangarnpal 'cheek'
- ngalparrana 'oyster'
- mapuj 'yam'
- kujung 'anteater'
- kunmolo 'tail'

Noun Affixes

<table>
<thead>
<tr>
<th>CLASS</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;na-&gt;</td>
<td>Gender, first order prefix</td>
</tr>
<tr>
<td>a.</td>
<td>na- masc</td>
</tr>
<tr>
<td>b.</td>
<td>ngal- fem</td>
</tr>
<tr>
<td>c.</td>
<td>ma-/man- neuter</td>
</tr>
</tbody>
</table>

ma- occurs before retroflexed 'C' and before 'C' followed by
CLASS DESCRIPTION

u, o, also before w, y. man- occurs elsewhere, the n conform­
ing to initial nasal 'C' of stem.
mawayuk 'shadow' ; mantulum 'mountain'.

d. ku-/kun- neuter

Occurrence same as above except that the n is often retained
preceding a noun stem with an initial nasal 'C'.

kunmolo 'tail'; kuwalak 'stone, small'.

1.3. The Adjective

The classification of the adjectives may be made on two independent
criteria: internal structure and order of occurrence. They manifest
the Descriptive tagmeme in Noun phrases, the Comment tagmeme in Item
Comment clauses and the Object and/or Subject tagmemes of Verbal clauses.

\[ \text{Formula: } aj + (c: <ma->, <ngi->) + n:ajs, avs \]

The adjective construction is read as an optional concord tagmeme
manifested by an affix from class <ma-> or <ngi-> followed by an obli­
gatory nuclear tagmeme manifested by either an adjective stem or an ad­
verb stem.

Order of Occurrence

1. -nta/-nto 'this'

-nto occurs with the prefix ngo-, evidencing vowel harmony; -nta oc­
curs elsewhere.

The demonstrative occurs contiguous to the noun when there is more
than one adjective and precedes a descriptive adjective. It usually
follows a numerical adjective. The demonstrative is a bound form which
takes affix class <ngi->.

Examples:

\begin{verbatim}
ma -nta jem
<ngi->-de: this n: lily root
'this lily root'

ngo -nto tukulu
<ngi->-de: this n: wind
'this wind'

ke -nta mapu
<ngi->-de: this n: chest
'this chest'
\end{verbatim}
2. In a noun phrase the descriptive adjective, if occurring with a demonstrative, will follow the noun; otherwise, if it is the only adj, the general rule of non-stable word order applies. The bound forms take affix class <ma->, and affix class <ngarra-> when manifesting the C tagmeme of an IC clause.

a. Bound forms
   - kuji 'one'
   - mak 'good'
   - wayntak 'small'
   - kumarlyung 'long'
   - marru 'clever'
   - ngane 'large'
   - rayek 'live one'

b. Free forms
   - jaku 'left one'

   manta jem mankumarlyung
   this lilyroot long
   'this long lily root'

   kunpit jaku
   hand left one
   'left hand'

3. Numerical adjectives are free forms which most often occur before the demonstrative and descriptive.

   ngop 'all'
   ngop ninta kuwalak kungan
   marru: all this stone big
   'all these mountains'

   ngop ninta namak
   marru: this black ant good
   'this good black ant'

   kapurrk 'two'
   kapurrk kirrimarrk
   num:two n:man
   'two men'

Adjectival Affixes

<table>
<thead>
<tr>
<th>CLASS</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;ma-&gt;</td>
<td>A gender prefix which is in concord with the noun classes and occurs in first order.</td>
</tr>
</tbody>
</table>

a. ma-, man-
   ma- occurs before retroflexed 'C': marlengpinpin 'large (fire)'; man- occurs elsewhere: mankumarlyung 'long (stick)'.

b. ku-, kun-
   Distribution as above: kurlengpinpin 'large (stone)'; kunkumarlyung 'long (tongue)'.

-Ø-
   In a few instances, the aj is suffixed directly to the noun: guyunu-lengpinpin
   cloud- large
   'large cloud'.

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CLASS DESCRIPTION

c. na-  masc  nakukarlyung 'tall (man)'.

d. kî-, kin- fem  kî- occurs before nasal 'C': kingana 'large (sun)'; kin- elsewhere: kinkukarlyung 'tall (woman)'.

<ngi->

The following occur with the demo aj -nta in concord with the preceding affixes.

a. ma-  in concord with affix <ma->a.: manta mankukarlyung 'this long (one)'.

b. ngo-, ke-  ngo- occurs in concord with affix <ma->b.: ngonto kurlengpinpin 'this large (one)'; ke- occurs when the demo aj is the only modifier of certain nouns in this class (mostly body parts): kenta janga 'this foot'.

c. ni-  in concord with affix <ma->c.: ninta nakukarlyung 'this long (one)'.

d. ngi-  in concord with affix <ma->d.: nginta kingana 'this big (one)'.

Internal Structure Classes

1. Simple roots
   a. Free form: ngop 'all'; jaku 'left one'
   b. Bound form: -leng 'group'; -mak 'good'.

2. Compound stems, bound form: -lengpinpin 'extra large group'.

3. Reduplicative stems, bound forms:
   a. Complete reduplication: -poynpoyn 'same'
   b. Partial reduplication: -lengpinpin 'extra large group'.

4. Derived stems. Words which function as adverbs in their free form, function as adjectives with addition of the adjective gender prefix.

<table>
<thead>
<tr>
<th>Adverb</th>
<th>Adjective</th>
</tr>
</thead>
<tbody>
<tr>
<td>wayntak 'little bit, slightly'</td>
<td>nawayntak 'small (thing)'</td>
</tr>
<tr>
<td>poynpoyn 'yet, still'</td>
<td>napoynpoyn 'same (thing)'</td>
</tr>
</tbody>
</table>

1.4. The Adverb

As the manifestation of the Modifier tagmeme on the clause level, the adverb always occurs contiguous to the Predicate tagmeme. Their internal structure divides the adverbs into three classes.
Formula: av + nu:avs,[n +de:-ke]

The adverb syntagmeme is read as an obligatory nuclear tagmeme manifested by an adverb stem, or by a noun with the derivational suffix -ke.

Internal Structure Classes

1. Simple roots: lorr 'properly'; jirniyn 'very well'.
2. Reduplicative stems: poynpoyn 'yet, still'; morremorrek 'softly'.
3. Derivational stems: kunmim 'eye' + -ke + kunmimke 'with eyes closed'.

1.5. The Pronoun

There are four classes of pronouns, grouped according to their distribution in higher grammatical levels. Differences in internal structure coincide with the various distributions so that there is only one major classification.

1. Free form, manifest S and O tagmemes on the clause level.

   ngayi 1st sg
   nganangka 1st du
   nguta 2nd sg
   nungutpe 2nd pl
   nuka 3rd sg masc
   penangka 3rd du
   kika 3rd sg fem

Other plurals than those shown are formed by juxtaposition of these forms, or of these forms with numerical aj's:

   nguta ngayi 'we two'

2. Portmanteau free form, occur pre-predicate in a clause and manifest S + O tagmeme.

   ynanun you (S) + me (O)
   kiynputu you (S) + them (O)

3. Affixes, occurring as S, O and IO bound to verbs. These are listed in the section on Gunbalang verbs under classes: <nga->, <marnayn->, <jita->, <an->, <pun->, <ngarra->.

4. Bound forms requiring affix classes <pi->, occurring in the D slot of N3 phrase.

   -naypu 1st sg
   -narrku 1st du
   -nangku 2nd sg
   -narrkununu 1st pl
   -nungunungka 2nd du
   -nukutpe 2nd pl
Pronominal Affix

CLASS DESCRIPTION

<pi-> Occur as first order prefix with pronouns of class 4.

a. pi- benefactive; punungku ‘for you’
b. ki- possessive; kinungku ‘yours’.

1.6. Temporal

These time words occur in the T slot of clauses.

penpe ‘yesterday’
palkime ‘today’
malayi ‘tomorrow’
wularrut ‘long before’
lakamurrung ‘evening’
kilapenpe ‘dinnertime’
mulammulam ‘dawn’
yiwaynpik ‘later’

1.7. Locational

Location words manifest the L tagmeme of clauses and Locational phrases, as well as the R of Prepositional phrases (and one instance of occurrence as filler of A slot of PP).

yirrk ‘inside’
korro ‘there’
kentam ‘down’
katum ‘top’
gorro ‘yonder’

1.8. Interrogative

These manifest the Ig slot of the interrogative transform.

parta ‘what, why’
pirliyn ‘how many, when’
parta kikarrme ‘what do you have?’
pirliyn kangunje kangaynwoyn ‘when is he returning?’

1.9. Negative

1. merrek, wurnung ‘negative action’. Fill the Neg slot of Cl; occur with v_neg; may occur with karlu.

2. ngunta

3. kaynuwa

‘negative action’. Fills the Neg slot of Cl; occurs with v_pos; only occurs with 2nd sg subject on verb (merrek may occur with the 2nd sg subject without a change in meaning).
4. karlu 'no, nothing'. Acts as a noun, also fills the Pe slot of sentences.

1.10. Connective

la 'and, or, but, because, so'. Coordinates parallel constructions: verb and verb; locational and locational; noun and noun; and maintains either the subject or the action or both.

verb and verb, subject maintained
ka-jungjanga-yn la ka-kalng lama
'he bends down and picks up the spear'

noun and noun, action maintained
parramimpayn klyun la nawalak
'woman out and baby'

locational and locational, subject and action maintained
kenta karlu la konta
'don't (sit) there, but here'

1.11. Relators

1. Locative

korro, kuyi 'direction: to, under, near'. Fills R₁ slot of Prep phrase.
korro kunpit
in hand
'(he held it) in his hand'
kuyi kongong
into milk
'(he put it) into the milk'

2. Comparative

yimarna 'resembling'. Fills R₂ slot of Prep phrase.
yimarna karlmunungu
resemble horned animal
'y (he looks) like a goat'
yimarna turtuk
resemble dog
'(he looks) like a dog'

2. PHRASE LEVEL CONSTRUCTIONS

The level above the word in the Gunbalang grammatical hierarchy is the phrase. The structure of the phrase distinguishes it from the next higher level, the clause, and from the previous level, the word. The difference between word and phrase is obvious, for the word is made up of bound forms or of free forms (simple roots) bound together as a
phonological word, i.e. with the same stress as a simple root; whereas, a phrase consists of one or more tagmemes, none of which is manifested by a bound form. The relationship between tagmemes distinguishes the phrase level from the clause level. Phrase level relationships are modification, linkage, and relator; while clause level relationships are predication, subject or object of predication, and scene. The phrase manifests tagmemes on the clause level, and on the phrase level in a nesting construction.

2.1. The Noun Phrase

Noun phrases are separated into three types according to the complement of tagmemes and their exponents. The conjunctive noun phrase is composed of two head tagmemes joined by a conjunction, while the descriptive and personalised noun phrases each contain only one head. The descriptive phrase further has an optional descriptive tagmeme which may occur twice and is expounded by an adjective; whereas, the personalised phrase has one obligatory descriptive tagmeme expounded by a possessive or benefactive form.

Noun phrases occur as manifestations of the Axis tagmeme of Prepositional and Locative Phrases, and of the Subject, Object, Indirect Object and Instrument tagmemes of clauses.

Formal Statement of Tagmemes
1. \( H_d, H_p, H_c, H_c' \)
2. \( D_d, D_p \)
3. \( Cj \)

Formal Statement of Exponents
1. \( H_d : N, pr \)
2. \( H_p, H_c, H_c' : N \)
3. \( D_d : aj \)
4. \( D_p : poss, ben \)
5. \( Cj : la, rising intonation. \)

Formula:

\[ N_d + (D_d^2) + H_d \]

In the descriptive noun phrase, the optional descriptive\(_d\) tagmeme may occur once or twice and is manifested by an adjective. The following obligatory head\(_d\) tagmeme is manifested by a noun phrase\(^2^3\) or a pronoun.
The order $D_d \cdot H_d$ as shown is the most common occurrence, but the reader will recall that above the word level of the grammatical hierarchy the word order is not stable so that a stylistic permutation of $H_d \cdot D_d$ often occurs.

**Citation**

$$ngop \ ninta \ ku-walak \ ku-ngana$$

*D:all D:his H:it-stone it-big*

'All these mountains'

$$kapurrk \ kirrimarrk$$

*D:two H:men*

'two men'

**Permutation**

$$narno \ napareng$$

*H:snake D:poisonous*

**Formula:**

2. $N_p + D_p + H_p$

The personalised noun phrase is read as a descriptive tagmeme followed by a head tagmeme, both of which are obligatory. The $D_p$ is manifested by a possessive or benefactive form, the $H_p$ tagmeme is manifested by a noun phrase.

**Citation**

$$nguta \ ki-nungku \ turtuk$$

*D:you you-possessive H:dog*

'Your dog'

**Permutation**

$$turtuk \ pi-ngaypu$$

*H:dog D:me-benefactive*

'dog of mine'

**Formula:**

3. $N_C + H_C + C_j + H_C'$

The conjunctive noun phrase is read as an obligatory head$_C$ slot filled by a noun phrase, followed by an obligatory conjunction slot filled by the function word la or rising intonation over the final syllable of the preceding word. Following the conjunction tagmeme is an obligatory head$_C$ prime tagmeme manifested by a noun phrase.
Citation

ngal-puk la na-walak
H:fem-person Cj:and H:masc-little
'woman and baby boy'

ngarrken yika parpung yika ngalpartana
H:animals Cj:ri inton H:(some fish Cj:ri inton H:some oysters)
'animals, some fish and oysters'

2.2. The Pronoun Phrase

The complement of tagmemes separates the pronoun phrases into three types: the descriptive, conjunctive and emphatic. The descriptive syntagmeme has an optional descriptive tagmeme and one obligatory head; while the conjunctive has only an obligatory head which may occur twice. The emphatic pronoun phrase is composed of obligatory head and emphatic tagmemes. Pronoun phrases manifest the subject tagmeme on the clause level.

Formal Statement of Tagmemes
1. $H_d$, $H_c$, $H_e$
2. D
3. E

Formal Statement of Exponents
1. $H_d$, $H_c$: pr
2. $H_e$: pr, N
3. D:aj3
4. E:poyn/piju

Formula:
1. $Ph_d \rightarrow H_d (+D)$

The descriptive pronoun phrase is read as an obligatory head tagmeme manifested by a pronoun followed by an optional descriptive tagmeme manifested by an adjective of group 3.

Citation

nguta kapurrk
H:you D:two
'you two'
The conjunctive pronoun phrase is read as an obligatory conjunctive head tagmeme which may occur twice, and is manifested by a pronoun.

Citation
nguta nga\text{y}i
H:you H:I
‘you and I’

The emphatic pronoun phrase consists of an emphatic head tagmeme which is obligatory and manifested by a pronoun or noun phrase, followed by the obligatory emphatic tagmeme which is manifested by the emphatic pronouns poyn piju or piju.

Citation
na-puk poyn piju
H:masc-person E:own self
‘the man his own self’
nguta poyn piju
H:you E:own self
‘you, your own self’
turtuk piju
H:dog E:himself
‘the dog himself’

2.3. The Locative Phrase

The locative phrase is also a relator-axis construction with a location word functioning as relator. As the name implies, this phrase manifests the locative tagmeme of a clause.

Formula:
LPh + H + L

Exponents: H:N L:location

The lead in a locative phrase is manifested by a noun phrase and is an obligatory tagmeme followed by an obligatory locative tagmeme manifested by a location word.
2.4. The Prepositional Phrase

The prepositional phrase is a relator-axis construction. Unlike the previous phrase structures whose nuclear tagmemes are manifested by open class units, i.e. a class of units containing many mutually substitutable forms, the prepositional phrase has in its composition an obligatory tagmeme manifested by closed class units, i.e. a class with very limited substitution. These closed class units (which are words in this instance) have the structural meaning of relator, gaining their lexical meaning from the larger context in which the phrase occurs. korro may translate as 'in, into, to, on, near', but always relates an axis tagmeme as location in a higher level.

The exponents of the relator tagmemes and the distribution of the phrase type distinguishes two prepositional phrase syntagmemes, the locative and comparative. The relator locative is expounded by a location word and this syntagmeme manifests the locative tagmeme of a clause. The relator comparative is expounded by a comparative word and the phrase manifests the comparative tagmeme of a clause.

Formal Statement of Tagmemes
1. \( R_1, R_{cp} \)
2. \( A_1, A_{cp} \)

Formal Statement of Exponents
1. \( R_1: \) korro, kuyi
2. \( R_{cp}: \) yimarna
3. \( A_1; A_{cp}: N \)

Formula:
1. \( PP_1 + R_1 + A_1 \)

The locative prepositional phrase is read as an obligatory relator\(_1\) tagmeme followed by an obligatory axis\(_1\) tagmeme.

Citation
korro kunpit
R:in A:hand
'in the hand'
kuyi kongong
R:into A:milk
'into the milk'
korro kojparre
R:to A:house
'to the house'
The comparative prepositional phrase is read as obligatory relator $cp_{\text{rel}}$ and axis $cp_{\text{ax}}$.

Citation
\begin{align*}
\text{yimarna karlmunungu} & \quad \text{yimarna turtuk} \\
\text{R: like a horned animal} & \quad \text{R: like a dog} \\
\text{\textquoteleft like a goat\textquoteright} & \quad \text{\textquoteleft like a dog\textquoteright}
\end{align*}

3. CLAUSE LEVEL CONSTRUCTIONS

There are two major clause types, verbal and non-verbal, distinguished by the presence or absence of an obligatory predicate tagmeme. The verbal clauses are subgrouped, according to the internal structure of the verb manifesting the Predicate tagmeme and according to the complement of nuclear tagmemes, into the declarative and imperative moods of the intransitive, transitive, ditransitive and reflexive clause subtypes. The non-verbal clauses are -

(1) Item-Comment where the distinctive function is carried by the Comment tagmeme, and

(2) the Comparative clause which is identified by the obligatory occurrence of a Comparison tagmeme.

The nuclear tagmemes of clauses are all those which are obligatory, those which relate to the predicate and those which distinguish between the clause types. All other tagmemes are peripheral, occurring as clause expansions. In Gunbalang the peripheral tagmemes are $(T)$ $(M)$ $(A)$ $(L)$. They never occur in isolation on the clause level and may occur in any combination as expansions of the verbal clause. Only the $(T)$ and $(L)$ may occur as expansions of the non-verbal clauses. The nuclear tagmemes of the clauses are given in the following chart.

<table>
<thead>
<tr>
<th>CHART V: CLAUSE TYPES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DECLARATIVE</strong></td>
</tr>
<tr>
<td><strong>VERBAL</strong></td>
</tr>
<tr>
<td>Int $(S)$ $(+\text{Neg})$ $P$</td>
</tr>
<tr>
<td>Tr $(S)$ $(+\text{Neg})$ $P$ $(+O)$ $(+\text{In})$</td>
</tr>
<tr>
<td>Di $(S)$ $(+\text{Neg})$ $P$ $(+\text{IO})$ $(+O)$</td>
</tr>
<tr>
<td>Ref $(S)$ $(+\text{Neg})$ $P$</td>
</tr>
<tr>
<td><strong>NON-VERBAL</strong></td>
</tr>
<tr>
<td>(Neg) $(+I)$ $C$</td>
</tr>
</tbody>
</table>
Clauses function as Base tagmemes on the sentence level of the grammatical hierarchy and in nesting or embedding constructions when manifesting a tagmeme on the clause level.

3.1. The Verbal Construction

Nuclear tagmemes form a kernel construction which may be expanded by addition of any combination of the peripheral tagmemes. Each tagmeme in the kernel of a verbal clause relates to the predicate through a reference affix within the predicate and/or by manifesting a distinctive feature of the clause type. For example, the transitive declarative clause has, manifesting its predicate function, a verb whose prefixes designate the subject and object of its action. The kernel of this clause includes a tagmeme which relates to each of these functions: (S) (+Neg) +P (+O) (+In). Although the (In) tagmeme is not predicted in the verb, it is a nuclear tagmeme because it presupposes a transitive verb and is, therefore, a distinctive feature of the transitive clause.

Formal Statement of Nuclear Tagmeme Exponents

1. S: N, Pr, aj
2. O: N, aj, karlu
3. IO: N, Pr
4. IN: N
5. P: v int', v tr', v di', v neg
6. Neg: kaynuwa, merrek, wurnung, ngunta

Peripheral Tagmeme Exponents

1. T: ti
2. M: av
3. ACC: Pr
4. L: Prep, l, N

Formula:
1. V Int De Cl + (S) (+Neg) +P

The verbal intransitive declarative clause kernel is read as an optional subject tagmeme followed by an optional negation and by an obligatory predicate.

Citation

na-kui ka-ngaynkirtayn
Simale-one P:he-returned
'the man returned'
ngal-puk ka-yuwa
S: female-person P: she-is sleeping
' the woman is asleep'

Expansions
ngayi nga-yn-ka ku-walak ku-ngana
S: I P: I-pres-go L: it-stone it-large
'I am going to the mountain(s)'

nguta ki-yn-aynka ngayi
S: you P: you-pres-return ACC: I
' you return with me'

ku-nak-kuji ngarrki-woyn
M: it-one-good P: we-turn around
' we had better turn back'

Permutations
ka-yn-aynka na-kuji palanta
P: he-pres-returns S: male-one white man
'the white man is returning'

Formula:
2. V Int Imp Cl + (Neg) + P

The imperative clause never occurs with a free pronoun, and the nuclear tagmemes are an obligatory predicate preceded by an optional negation tagmeme.

Citation
ki-yn-ka
P: you-pres-go
' go! '

Expansions
palkime ki-yn-ka
T: now P: you-pres-go
' go now! '

Formula:
3. V Tr De Cl + (S) (+ Neg) + P (+ O) (+ In)

The transitive differs from the intransitive in the number of dramatis personae, one in the intransitive and two in the transitive. As will be noted later, there are three in the ditransitive clause. These gradients of transitivity coupled with a different verbal manifestation
of each predicate tagmeme in the clause types define them as signifi­
cantly distinct structures according to Longacre's criteria of two
structural differences of which at least one affects a nuclear and/or
obligatory tagmeme.

The transitive clause kernel is read as an optional subject followed
by an optional negation tagmeme which is followed by an obligatory pre­
dicate, followed by the optional occurrence of an object and instrument
tagmeme.

Citation

ngayi ngata-kiyne tapilana
S: I P: I-cook In: billy can
'I cook in a billy can'

ngayn-yilkpuyn kikakiyn man-jawk
P: I-cut O: meat In: neuter-knife
'I cut the meat with a knife'

Expansions

ngata-kiyne tapilana martimpirrk katum
P: I-cook In: billy can L: coals top
'I cook it in a billy can on top of the coals'

palkime ngayi nga-yn-jita-jiyn na-kerrku
T: now S: I P: I-pres-you-eat O: male-buffalo
'now-days all of us eat buffalo meat'

Permutations

ngatpe wularrut ngata-jarra-ng kikakiyn
S: we T: before P: we-eat-past O: meat
'long ago we ate meat'

nga-yn-pari-kiyne wam malayi
PP: I-pres-liquid of-cook O: tea T: presently
'presently, I'll be cooking tea'

Formula:

4. V Tr Imp Cl + (Neg) + P (+O) (+ In)

The transitive imperative reads as an optional negation tagmeme fol­
lowed by an obligatory predicate tagmeme followed by optional object
and instrument tagmemes.
Citation
ki-yn-walkiwoyn
P:you-pres-replace
'It put it back!'

ki-nguluktompuyn
P:you-extinguish
'put it out! (the fire)'

Expansions
ki-nguluktompuyn jirniyn
P:you-extinguish M:very
'put it out, quick!'

Formula:
5. V Di De Cl + (S) (+Neg) +P (+IO) (+O)

The verbal ditransitive declarative clause kernel is read as an optional subject tagmeme followed by an optional negation tagmeme followed by an obligatory predicate and an optional indirect object and object tagmeme.

Citation
nga-yn-puynngurr pi-nungku man-purrpa
P:I-pres-wash IO:ben-you O:neuter-clothes
'I can do your washing'

Expansion
ngayi nga-pumngurr kun-mak
S:I P:I-washed M:neuter-good
'I did the washing very well'

Permutation
kirrimarrk na-kuji kapurrrun kikiwayn ka-putu-marnayn-purrjuwa
S:man IO:they all P:he-them-for-tells story
'a man is telling all of them a story'

Formula:
6. V Di Imp Cl + (Neg) +P (+IO)

The ditransitive imperative clause kernel has an optional indirect object following the obligatory predicate, preceded by an optional negation tagmeme.
The reflexive declarative clause kernel is read as an optional subject followed by an optional negation tagmeme which is followed by an obligatory predicate tagmeme.

Expansion

ngorro ngarrki-ka1 pi - yi
Lit: there P: we-meet-ref pres
'we will meet each other there.'

Permutation

ka-peye-jiyn na-puk poyn piju
P: he-body-bites self S: male-person own self
'the fellow is biting himself'

Unlike the other imperative clauses, the reflexive imperative is read as an optional subject following the usual obligatory predicate tagmeme, which is preceded by an optional negation tagmeme.

Citation

ki-yn-jiyn nguta poyn piju
P: you-pres-feed(eat) S: you own self
'you feed your own self!'
Negative Reading of the Verbal Construction

Each of the previous positive constructions may be read as negative by choosing the optional negative tagmeme and, in the instance of the declarative clauses, applying a simple transform rule:

\[ v_{\text{pos}} \rightarrow v_{\text{neg}/\text{Neg} + P} \]

There is no change in the verbal exponent of the predicate in negative imperative clauses. The negative transform of declarative clauses is read thus: the positive verb becomes a negative verb in the environment of the Negative tagmeme occurring with a predicate tagmeme which is expounded by a positive verb.

**Formula:**

1'. V Int De Cl \( \rightarrow (S) (+\text{Neg}) + P \)

**Citation**

ngayi ngarra-kirta-ng
S:I P:I neg-go-past neg
'I didn't go'

**Expansion**

ngal-puk kenta merrek ki-rninini-ng
S:female L:there Neg:negation P:he neg-sit-neg
'the woman isn't there'

**Permutations**

merrek ki-lu na-wayntak
Neg:negation P:he neg-cries neg S:maile-baby
'the baby isn't crying'

ngayi ngunta korro-kenta ngarra-kirta-ng
S:I Neg:negation L:to-there P:I neg-go-past neg
'I didn't go down there'

**Formula:**

2'. V Int Imp Cl \( \rightarrow (\text{Neg}) + P \)

**Citation**

merrek ki-rriwo
Neg:negation P:you-turn neg
'don't you return!'

**Formula:**

3'. V Tr De Cl \( \rightarrow (S) (+\text{Neg}) + P (+0) (+\text{In}) \)
Citation

ngayi merrek ngarra-tenpulumi-rl
S:I Neg:negation P:I neg-break it-past neg
'I didn't break it'
merrek ngarra-ngajpouy na-milduppe
Neg:negation P:I neg-sharpen O:male-blunt
'it's dull, I can't sharpen it'

Expansions

merrek ngayi-parti-kiyne-rl penpe
Neg:negation P:I-liquid-cook-past neg T:yesterday
'I didn't boil tea yesterday'

Permutations

ngunta wirtij ki-ngulukompu-ni
Neg:negation O:fire P:you-extinguish it-past neg
'you didn't put the fire out, you missed it'
ngarra-parti-kiyne merrek
P:I neg-liquid-cook past neg Neg:negation
'I don't boil the tea'

Formula:
4'. V Tr Imp Cl + (Neg) +P (+0) (+In)

Citation

kaynuwa ki-parti-karrme
Neg:negation P:you-liquid-carry
'don't take that water!'

Formula:
5'. V Di De Cl + (S) (+Neg) +P (+IO) (+O)

Citation

ngayi merrek ngarra-pungurr
S:I Neg:negation P:I-neg-wash
'I don't wash for anyone'
ngayi wurnung ngarra-purrjung
S:I Neg:negation P:I neg-tell story
'I'm not telling a story'

Formula:
6'. V Di Imp Cl + (Neg) +P (+IO)
3.2. The Non-Verbal Construction

Formal Statement of Tagmemes

1. C
2. I
3. O
4. Cp
5. P
6. Neg
7. L
8. M

Formal Statement of Exponents

1. C: aj
2. I: N, aj
3. O: N
4. Cp: PP<sub>cp</sub>
5. P: kangunje
6. Neg: merrek
7. L: 1
8. M: av

Formula:

1. NV IC Cl + (Neg) (+I) +C (+M) (+L)
The non-verbal item-comment clause is read as an optional negative tagmeme followed by the nuclear though optional item and nuclear obligatory comment tagmemes, followed by an optional manner and location tagmeme. Any adjective type 2 may occur as a minimal item-comment clause.

Citation

\begin{verbatim}
  kun-jeng                kun-mak  jirniyn
  C:it-true              C:it-good M:very
  'that's true'          'that's interesting'

  kika kapurrk klynparra-kukarlyung
  I:they two   C:they-tall
  'they two are tall'

  kl-ngelerrk jirniyn loperl
  C:it-noisy M:very L:outside
  'it's very noisy outside'

  ngayi merrek ngarra-kukarlyung
  I:I Neg:not C:I-tall
  'I am not tall'
\end{verbatim}

---

The non-verbal comparative clause is read as an obligatory object tagmeme, followed by an optional and non-nuclear predicate tagmeme, followed by an obligatory comparative tagmeme.

Citation

\begin{verbatim}
  na-keyang karlyung yimarna turtuk
  O:masc-tooth long   C:like dog
  'he has long teeth like a dog'

  na-keyang karlyung ka-ngunje yimarna turtuk
  O:masc-teeth long   P:he-says C:like dog
  'he has long teeth (it appears) like a dog'
\end{verbatim}

3.3. The Interrogative Construction

There are two types of interrogative in Gunbalang, the one requiring an information answer and the other a yes/no answer. Any clause with the rising intonation pattern of a question elicits a yes/no answer. The interrogative transform of any clause which elicits an information answer is: $X + Y => Ig +X +Y$, where $X$ and $Y$ read as any elements in a
clause. The exponents of the interrogative tagmeme are: parta, pirliyn/-ngunje.

Citation

parta ki-yn-ngayi
Ig: what P: you-pres-hear
'what do you hear?'

parta ki-karrme korro kun-pit
Ig: what P: you-hold in hand
'what are you holding in your hand?'

parta ki-nungu ki-ngan-pum
Ig: why ben-you P: you-me-hit
'why did you hit me?'

parta merrek ki-putu-mulungkukarlangwa-ni
Ig: why Neg: not P: you-them-follow-negative
'why didn't you follow them?'

pirliyn ka-ngunjje ka-ngaynwoyn
Ig: when he-say P: he-returns
'when is he returning?'

pirliyn ka-ngunjje ngarrki-woyn
Ig: when he-say P: we-turn back
'when are we coming back?'

pirliyn kaynpata-ngunjje nuka nga-ynngarnay narleng ka-ja nganaparru
Ig: how many they-say 0: this P: I-saw 0: group he-stand buffalo
'how many buffalo were there in that group I saw?'

pirliyn ka-ngunjje parrwilwij ki-putu-karrme
Ig: how many he-say 0: children P: you-them-have
'how many children do you have?'

4. SENTENCE LEVEL CONSTRUCTIONS

The grammatical sentence differs from the clause in that sentence level tagmemes may be manifested by units from any level of the grammatical hierarchy, and the relationship between tagmemes is that of cause-and-effect, sequence or parallel action rather than such clause level relationships as predication and subject.

The internal structure of the syntagmeme divides the sentences of Gunbalang into (1) non-complex, those with one nuclear tagmeme; (2) complex, with two or more nuclear tagmemes joined by an obligatory connective; (3) compound sentences with two or more nuclear tagmemes grammat-
ically joined by their juxtaposition rather than by a connective. The compound sentence is distinguished from a series of two or more sentences by exhibiting the phonological features of a single sentence.  

The exponents of the nuclear tagmemes of the *non-complex* sentences separate them into the Simple Sentence and the Particle Sentence. The *complex* structure always exemplifies a cause-and-effect relationship between nuclear tagmemes. There are two types of sentence which have a *compound* structure, the Sequence and Parallel Sentences, which are separated as types of syntagmemes by the exponents of their nuclear tagmemes. Features of these exponents further subdivide each of these two types into four sub-types: Chronological, Simultaneous, Alternative and Direct Quote Sequence; Parallel, Retrospective, Comparative and Repetitive. The following notation paradigm sets out the sentence types, sub-types and their syntagmatic formulas.

**CHART VI: SENTENCE TYPES**

*Non-Complex*

- **Simple Sentence**: (Pe) +C1B
- **Particle**: (Pe) +PB

*Complex*

- **Cause-Effect**: (Pe) +CS +Conn +EF

*Compound*

- **Sequence Sentence**
  - **Chronological**: (Pe) +SE +SE’ (+SE")
  - **Simultaneous**: (Pe) +SA +SA’
  - **Alternative**: (Pe) +ST1 +AL
  - **Direct Quote**: (Pe) +QF + QU

- **Parallel Sentence**
  - **Parallel**: (Pe) +PS +PS’
  - **Retrospective**: (Pe) +RE +RE’
  - **Comparative**: (Pe) +ST2 +CP
  - **Repetitive**: (Pe) +RB2

**Formal Statement of the Exponents of Sentence Tagmemes**

1. Pe: Id, Vo
2. C1B: any Cl
3. PB: any construction below the Cl
4. CS: any construction except Phrase
A simple sentence is read as an optional peripheral tagmeme followed by an obligatory clause base.

Citation

nga-yn-ka korro yalpi
CLB: I-pres-go to camp
'I am going home.'

ki-yn-ka korro yalpi
CLB: you-pres-go to camp
'Go home.'

Expansions

Jisalia ki-yn-ka korro yalpi
Pe: Jisalia CLB: you-pres-go to camp
'Jisalia, go home!'

A particle sentence is read as an optional peripheral tagmeme followed by an obligatory particle base.

Citation

korro yalpi
PB: to camp
'Home.' Response to question such as 'Where are you going?'
Expansion

cukangunjye poyn
Pe:okay  PB:completed
'Okay, finish.'

Formula:
3. Cs-EF SN + (Pe) +CS + Conn +EF

The cause-and-effect sentence is read as an optional peripheral tagmeme followed by obligatory cause and effect tagmemes joined by an obligatory connector tagmeme.

Citation

kikakiyn-turrkwayn nga-jarrang la nga-warrmi
Cs:meat-rotten I-ate Conn EF: I-am ill
'Eating the rotten meat made me ill.'

Permutation

nuka manjang kingarrkun-pum yimarna parrawijwij ngarrk-purrun-
EF: this crowd-us all of us-killed Conn  EF: children we-them
karrmi
carry
'We'll all get killed carrying those children.'

narno ka-yuwa korro ku-jorlok la ka-wungmi
EF: snake he-sleeps in it-hole Conn CS: he-breath smokes
'The snake is in his hole because it's winter-time (frosty breath).'  

Formula:
4. CH SE SN + (Pe) +SE +SE' (+SE")

The chronological sequence sentence has obligatory sequence and sequence prime tagmemes followed by an optional sequence double-prime tagmeme, all preceded by an optional peripheral tagmeme.

Citation

ka-korro-pakjung nga-majiyn nga-warntadlkpun
SE: he-there-sat SE':I-shot SE":I-missed
'He alighted, I shot and missed.'
It's best for us to get up in the morning and go.'

'So they go and kill many animals.'

'They two are walking with their arms around each other.'

'She came out carrying the baby.'

'I didn't hunt yesterday, I worked.'

'No, I'm not pouring in milk, I'm pouring water.'
tagmeme followed by obligatory tagmemes of quote focus and quote.

Citation

ngana-kirtayn nga-marnayn-ngunta ki-yn-ka ngorro ngal-kan
Pe:we-went QF:I-for-told QU:you-pres-go there fem-relative
kiyn-marnayn-pinki
you-for-stay-con

'On the way, I told her, "Go over there and stay with your mother".'

Formula:

8. PA SN + (Pe) +PS +PS' (+PS")

The parallel sentence has two obligatory and one optional parallel sequence tagmeme introduced by an optional peripheral tagmeme. The concordance is manifested in the repeated *dramatis personae* and semantic equivalence in the nuclear tagmemes.

Citation

ka-jingaynpum ka-warrmi ka-yn-poynjek
PS:he-sneezes PS:he-is ill PS:he-pres-is cold
'He is ill with a cold and sneezing.'

kun-kuji nga-ngaynwarren nga-ngaynkangin
PS:it-good I-came with it PS:I-brought it
'I came and brought the good thing.'

parrawijwij ka-mankan yiwayn ka-ngan-munpum
PS:child he-fell PS:that is he-me-fell on
'The child fell, that is he fell on me.'

Formula:

9. RE PA SN + (Pe) +RE +RE'

The retrospective parallel sentence is read as an optional peripheral tagmeme followed by obligatory retrospective and retrospective prime tagmemes. The concordance between the nuclear tagmemes is manifested by the repetition in semantic equivalence of one or more units from each tagmeme.

Citation

ngatpe nuka ngata-majiyn nayim kuyn palkime ngorro karlmunungu
RE:we then we - hunt those kangaroos RE':today there buffalo
'We used to hunt kangaroos but today we hunt buffaloes.'
ngatpe wularrut ngata-jarrang kikaklyn palkime ngaynjita-jlyn
RE:we previous we-ate meat RE':today all of we-eat
nakerrku
bullook

In the old times we (not you) ate wild meat, now all of we eat beef.'

Formula:
10. CP PA SN + (Pe) + ST + CP

The comparative parallel sentence is read as an optional peripheral tagmeme followed by a statement type 2 obligatory tagmeme and an obligatory comparative tagmeme. The concordance between these tagmemes is shown in the repetition of the positive aspect as negative.

Citation
ka-ngarnta-laka kun-mak ngunta nakaypi kiparra-pirriyning
ST$_2$: he-it-throws it-good CP: neg better they not-same not

'He throws a spear better than they do.'

Formula:
11. RP PA SN + (Pe) + RPB$^n$

The repetitive parallel sentence is read as an optional peripheral tagmeme followed by an obligatory repeated base tagmeme whose possible infinite repetition is limited by the type of discourse and by the time span of the action. In conversation there are seldom more than three repetitions but in monologue there may be four to seven.

Citation
nga-kad1ng nga-pakpel-pum ngemek nga-kad1ng
RPB: I-caught it up I-with hand-bashed it RPB: then I-caught it
nga-pakpel-pum
I-bashed it

'I picked it up and bashed it down, picked it up and bashed it down.'

ngata-kirtayn kulkkulk ngata-kirtayn kulkkulk
RPB: we-left running RPB: we-left running

'We ran and ran fast.'

nga-rnay nga-rnay nga-rnay nga-rnay nga-rnay nga-rnay

'I looked and looked and looked and looked and looked.'
NOTES

1. A. Capell, "Languages of North and Northwest Australia", Oceania vol. 10 (1940), pp.7, 8.

2. The list was completed through "situation elicitation", i.e. depending on a situation rather than on a spoken word to bring a response from the informant. The checking of material was carried out according to methods set out by Voegelin and Harris. C.F. Voegelin and Z.S. Harris, "Methods for Determining Intelligibility Among Dialects of Natural Languages", Proceedings of the American Philosophical Society vol. 95 (1951), pp.322-29.


4. ibid., p.7.


11. A common feature of the Australian Aboriginal languages is the lack of a stable order of occurrence of the tagmemes on phrase, clause and sentence levels. Capell equates this feature with the complex word structure, showing that the latter gives maximum information thus allowing freedom of occurrence to give stylistic variation in the language without significant change of meaning. In this article, the most frequently occurring order will be given as the descriptive formula, with variations shown as resulting from the stated P operation. The few instances where tagmeme sequence is a significant distinction between syntagmemes will be mentioned in the text.


13. Affix order is stated in relation to the stem, e.g. a first-order affix is one occurring nearest the stem.

14. Leaders here indicate a discontinuous morpheme, the separating morpheme being the <yn-> 'present tense' as shown in the example.

15. The '2nd du/pl' subject negative prefixes are homophonous with the subject of the past-intransitive verb.

16. The negative character of the predicate in this instance is carried in the negative subject prefix.

17. There are many nouns whose first syllable is the same as the gender prefixes but which do not come under the classification because the remainder of the word does not occur with any other prefix.

18. Where a meaning for a part of the word has been recorded, it is shown.

19. In predicate-centered languages, the predicate is a minimal clause. I have, therefore, analysed the Predicate tagmeme plus the
Modifier tagmeme as an expanded clause rather than as a verbal phrase.
Robert E. Longacre, GVP, p.35ff.

20. ibid., pp.74, 75.

21. ibid, p.17.

22. The model for my format is taken from Lawrence Andrew Reid, An Ivatan Syntax, Oceanic Linguistics special publication No.2 (1966), University of Hawaii, 160pp.

23. An example of nesting or embedded constructions, for the H tagmeme is here manifested by a noun phrase.


   Relevant sections on structural meaning are on pp.116-121 in vol. I, p.95 in vol. III.


27. This tagmeme could logically occur with the ditransitive clause type as well, but there is no evidence of such an occurrence in my data.


29. Robert E. Longacre, "The Notion of Sentence" (mimeographed copy of pre-publication manuscript, 1968).


31. Map 1 shows the main concentrations of the languages listed. There are other languages in the areas which are not mentioned here because they do not pertain to this study. Besides personal visits
and checking in these areas, I have checked the following sources for corroboration:

32. Map 2 shows the traditional territories of the languages listed. These would be the territories which the speakers of the languages regard as their "country" and with which they have a totemic relationship. Although they have gradually migrated to government settlements, missions, cattle stations, etc., they will still go walkabout to their "country". The shadings show presence but not necessarily numbers of speakers. Other sources than Aboriginal informants for corroboration are:
  Neither Spencer nor Leichhardt gave much information on territorial boundaries, but the value of their observations rests in their recording words, movements and numbers of Aborigines they met.
PART III:

DESCRIPTIVE COMPARISON

OF

GUNWINGGUAN LANGUAGES
1. FORMAT OF THE COMPARATIVE STUDY

As mentioned in the general introduction, the outline of the comparative study follows the outline of the descriptive study of Gunbalang. The structures or syntagmemes on each grammatical level, the clause, phrase and word, are compared in the same order in which they occur in the Gunbalang description. On the clause level, for example, the verbal declarative clauses are compared first followed by the verbal imperative and the non-verbal clauses. Following each comparative paradigm is a discussion of the features disclosed in the paradigm.

2. CLAUSE LEVEL CONSTRUCTIONS

2.1. The Verbal Declarative Clauses.

Citation Paradigm: Intransitive
gloss: 'that man lives in a cave'
<table>
<thead>
<tr>
<th>V Int De Cl → (S:N, Pr, aj)</th>
<th>+P:v\textsubscript{int}</th>
<th>(+L:Prep, l, n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gunbalang</td>
<td>nuka kirrimarrk</td>
<td>ka-yuwa</td>
</tr>
<tr>
<td>that man</td>
<td></td>
<td>karra ku-walak</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ku-ngana in</td>
</tr>
<tr>
<td></td>
<td></td>
<td>stone big</td>
</tr>
<tr>
<td>Gunwinggu</td>
<td>na-mekpe piniyn</td>
<td>ka-yo</td>
</tr>
<tr>
<td>that man</td>
<td></td>
<td>kore ku-warterrurrk</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ki-muk big</td>
</tr>
<tr>
<td>Djepmi</td>
<td>na-pine piniyn</td>
<td>ka?'-yo</td>
</tr>
<tr>
<td>that man</td>
<td></td>
<td>kurrurrk-pe</td>
</tr>
<tr>
<td></td>
<td></td>
<td>cave-in</td>
</tr>
<tr>
<td>Dangbon</td>
<td>ka?'-nungpa? pi?</td>
<td>ka?'-yo-ngian</td>
</tr>
<tr>
<td>that man</td>
<td></td>
<td>patung-ka</td>
</tr>
<tr>
<td></td>
<td></td>
<td>cave-in</td>
</tr>
<tr>
<td>De?ynekmi</td>
<td>na-mkepe piniyn</td>
<td>ka-weleng-yo</td>
</tr>
<tr>
<td>that man</td>
<td></td>
<td>kore ku-warterrurrk</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ki-muk big</td>
</tr>
<tr>
<td></td>
<td></td>
<td>in stone</td>
</tr>
<tr>
<td>Djawan</td>
<td>ngarnpay mungkuy?</td>
<td>ka-purru</td>
</tr>
<tr>
<td>that man</td>
<td></td>
<td>pat-luk</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ka-rningman</td>
</tr>
<tr>
<td></td>
<td></td>
<td>cave-in he is</td>
</tr>
<tr>
<td></td>
<td></td>
<td>there</td>
</tr>
<tr>
<td>Gunaviji</td>
<td>yija</td>
<td>ka-yora</td>
</tr>
<tr>
<td>man</td>
<td></td>
<td>wipa-ra</td>
</tr>
<tr>
<td></td>
<td></td>
<td>camp-in</td>
</tr>
<tr>
<td>Mengerei</td>
<td></td>
<td>urru-nguynak</td>
</tr>
<tr>
<td>man lives</td>
<td></td>
<td>ulaynngam</td>
</tr>
<tr>
<td></td>
<td></td>
<td>emergl cave</td>
</tr>
<tr>
<td></td>
<td></td>
<td>there</td>
</tr>
<tr>
<td>Maung</td>
<td>nakapaja arrarrkpi</td>
<td>ki-yu</td>
</tr>
<tr>
<td>that man</td>
<td></td>
<td>tuka waryat</td>
</tr>
<tr>
<td></td>
<td></td>
<td>wukaj the stone</td>
</tr>
</tbody>
</table>
On the clause level, these languages are structured the same. The one obvious difference is the lack of a clause-level subject function in Mengerei. However, the subject is an optional function and it will be seen on the word level that Mengerei often incorporates a noun subject as person prefix to the verb, which has happened here. urri 'man' occurs rather than wa- '1st sj, int, pres cont'.

Citation Paradigm: Transitive

\text{gloss: 'the snake bit my dog'}

\[
V \text{ Tr De Cl } \rightarrow (S:N, Pr, aj) +P:v_{tr} (+0:N, aj)
\]

\begin{align*}
\text{Gunbalang} & \quad \text{narno} & \text{kapunpeyang} & \text{turtuk} \\
& \quad \text{snake} & \text{he it bit} & \text{dog} \\
\text{Gunwinggu} & \quad \text{nayin} & \text{bibayeng} & \text{turtuk} \\
& \quad \text{snake} & \text{it bit} & \text{dog} \\
\text{Djepmi} & \quad \text{jamo} & \text{nganmarnepayeng} & \\
& \quad \text{dog} & \text{me of bit} & \\
\text{Dangbon} & \quad \text{rolu} & \text{ka?payn} & \text{tatpe} \\
& \quad \text{dog} & \text{he bit} & \text{snake} \\
\text{De?ynekmi} & \quad \text{jamo} & \text{nankarrepayeng} & \\
& \quad \text{dog} & \text{I leg bit} & \\
\text{Djawan} & \quad \text{lungarrk} & \text{nganpiwayayn} & \text{waruk} \\
& \quad \text{snake} & \text{my it bit} & \text{dog} \\
\text{Gunaviji} & \quad \text{karrowolaya} & \text{kapala} & \text{parrapaya} \\
& \quad \text{snake} & \text{he bit} & \text{dog} \\
\text{Mengerei} & \quad \text{pump} & \text{nawemp} & \text{ngarrkiyn} \\
& \quad \text{dog} & \text{he bit} & \text{snake} \\
\text{Maung} & \quad \text{arukin} & \text{nginimanpung} & \text{ngartu lulu} \\
& \quad \text{snake} & \text{he it bit} & \text{my dog}
\end{align*}
Each of these languages allows for the permutation reading recorded here for Dangbon and Mengerei; therefore, rather than being a separating structural feature, the possibility of permutation is a unifying comparative feature.

As previously mentioned in the Gunbalang grammar, the intransitive clause is significantly distinct from the transitive because of (1) the presence in the transitive clause syntagmeme of a nuclear object tagmeme which is matched by (2) the manifestation of the predicate tagmeme by a transitive verb. The first distinction is easily seen in the above paradigm, and the second will be shown in depth in following word level comparisons. For present purposes, let me say that each verb shows in its prefix either an object morpheme or a transitive subject morpheme, except that of Gunaviji. From its surface structure, there is only one difference between the transitive and intransitive clause in Gunaviji and the two clauses are not, therefore, distinct according to Longacre's criteria. Thus, Gunaviji shows a difference from the other languages structurally. Longacre posits
transform potential as a further criterion for separating syntagmemes but this would necessitate a comparison of the deep structure of Gunaviji and my available data does not allow for that.

**Citation Paradigm: Ditransitive**

gloss: 'I will cook it for you'

\[
\begin{array}{cccc}
V & Di & De & Cl \rightarrow (S) & +P:V_{di} \rightarrow (+10) \rightarrow (+0) \\
\hline
\text{Gunbalang} & P & \text{neyang} & \text{nga-ynung-marnayn-kiyne} & \\
& & \text{food} & I & \text{you for cook} \\
\text{Gunwinggu} & P & \text{ngaye} & \text{man-mi marne-kiyne} & \\
& & \text{I} & \text{food for cook} \\
\text{Djepmi} & & \text{ngaye} & \text{marne-kiyne} & \\
& & \text{I} & \text{for cook} \\
\text{Dangbon} & & \text{ngey} & \text{ja?-marne-kiyn} & \text{mey} \\
& & \text{I} & \text{you for cook} & \text{food} \\
\text{De’ynekmi} & & \text{ngaye} & \text{nga-nmi-marne-kiyne} & \\
& & \text{I} & \text{I it for cook} \\
\text{Djawan} & P & \text{mayi} & \text{ngarrk wal-pi yalun} & \\
& & \text{food} & \text{I} & \text{I it cook} \\
\text{Gunaviji} & & \text{nga-jorro-miya} & \text{koyanga} & \text{fruit} \\
& & \text{I cook will} & & \\
\text{Mengerei} & & \text{ngap} & \text{e-me-kurn} & \text{welem} \\
& & \text{I} & \text{I you cook} & \text{food} \\
\text{Maung} & & \text{ngapi} & \text{nga-pa-wuyna} & \text{nuwut yirratat} \\
& & \text{I} & \text{(food) it cook} & \text{you of food} \\
\end{array}
\]

The distinguishing structural features of the ditransitive clauses are (1) the occurrence of an
optional nuclear indirect object tagmeme and (2) the manifestation of the predicate tagmeme by a ditransitive verb. The ditransitive verb is characterised in Gunbalang by the prefix marnayn- 'of, for' occurring with the transitive person prefixes. Just as the presence of the person prefixes on the verb obviate the necessity of a subject or object tagmeme (though nuclear, these tagmemes are optional), the indirect object prefix acts the same for that tagmeme.

In Gunbalang the same clause may be said as nga-ynung-kiyne pi-nungku (literally: I-you-cook you-for), where the ditransitive function is expressed in the indirect object tagmeme manifested by pi-nungku. It is this syntagmeme which compares with the Muang example given. Although the Mengerei verb expresses the ditransitive function differently, e.g. 'you' is the object in the prefix to the verb whereas the object tagmeme is manifested by a noun, it maintains the structural distinction between transitive and ditransitive.

The two languages which do not distinguish a ditransitive clause are Djawan and Gunaviji.
Citation Paradigm: Reflexive

gloss: 'I cut off my own finger'

\[
\begin{array}{lcl}
\text{V Ref De Cl} & \rightarrow & (S) + P \\
\text{Gunbalang} & \text{ngaye} & \text{nga-pirri-tukumi-iyyn} \\
\text{I} & \text{finger cut self} & \\
\text{Gunwinggu} & \text{nga-pit-jopkerr-iyn} & \text{finger chop self} \\
\text{Djepmi} & \text{nga-pit-jopkerr-iyn} & \text{finger chop self} \\
\text{Dangbon} & \text{nga?-ngarriyn-jopkerr-iyn} & \text{finger chop self} \\
\text{De?ynekmi} & \text{nga-pit-tajkerr-in} & \text{finger chop self} \\
\text{Djawan} & \text{nga-perrak-joppuy-iyn} & \text{finger chop self} \\
\text{Gunaviji} & \text{ka-konjang} & \text{he cut it} \\
\text{Mengerei} & \text{yirmiyirr} & \text{wi-kaynparl} \\
\text{0:hand} & \text{I-self cut} & \\
\text{Maung} & \text{nga-ladlkuy-yn} & \text{I chop self} \\
\end{array}
\]

There is a reflexive function manifested in the verb in each of the above languages except Gunaviji. Mengerei again diverges structurally but on a level lower than the clause; for the reflexive is shown in the subject prefix rather than in the aspect suffix as in the other languages.
<table>
<thead>
<tr>
<th>Citation Paradigm: Intransitive</th>
<th>Transitive</th>
<th>Ditransitive</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>gloss:</strong></td>
<td>'go away!'</td>
<td>'burn it!'</td>
</tr>
<tr>
<td>Gunbalang</td>
<td>ki-ynka</td>
<td>ki-ynkiyne</td>
</tr>
<tr>
<td></td>
<td>you go</td>
<td>you burn it</td>
</tr>
<tr>
<td></td>
<td>yi-rrunte</td>
<td>yi-wurltkemin</td>
</tr>
<tr>
<td></td>
<td>you go</td>
<td>you it burn</td>
</tr>
<tr>
<td>Djepmi</td>
<td>yi-re</td>
<td>yi-wurltkemin</td>
</tr>
<tr>
<td></td>
<td>you go</td>
<td>you it burn</td>
</tr>
<tr>
<td>Dangbon</td>
<td>ja?-ka?me</td>
<td>ta?-wurltka</td>
</tr>
<tr>
<td></td>
<td>you go</td>
<td>you it burn</td>
</tr>
<tr>
<td>De?ynekmi</td>
<td>yi-weleng-re</td>
<td>yi-wurltkemin</td>
</tr>
<tr>
<td></td>
<td>you go</td>
<td>you it burn</td>
</tr>
<tr>
<td>Djawan</td>
<td>ngiyn-kang</td>
<td>tutlk-miwu</td>
</tr>
<tr>
<td></td>
<td>you go</td>
<td>grass burn</td>
</tr>
<tr>
<td>Gunaviji</td>
<td>ma-yarra</td>
<td>ma-jorro maparra</td>
</tr>
<tr>
<td></td>
<td>you go</td>
<td>you light quick</td>
</tr>
<tr>
<td>Mengerei</td>
<td>ag-pirr</td>
<td>ag-aniynak</td>
</tr>
<tr>
<td></td>
<td>you go back</td>
<td>you it light</td>
</tr>
<tr>
<td>Maung</td>
<td>pIRR</td>
<td>an-mayija</td>
</tr>
<tr>
<td></td>
<td>go</td>
<td>you it burn</td>
</tr>
</tbody>
</table>
The imperative clauses are distinct from the declarative in several features: (1) the absence of a subject tagmeme; (2) the occurrence of the person prefix on the verb limited to second person singular as subject, though it occurs in combination with any other person as object; (3) an imperative stress pattern with primary stress on the person prefix rather than, as elsewhere, on the verb root. Other than Gunaviji, all of the above evidence these distinctions. Gunaviji has a separate imperative person prefix ma-, the declarative being ja-, ta-. Several of the languages have an imperative expression occurring without a person prefix: Djawan tutlkmiwu 'burn the grass', and Maung p irr 'go away'. It is common in each of these nine languages to admonish someone with one-syllable interjections which do not require person prefixes: ma 'hurry it up!', met 'wait on!'; therefore, these two imperative forms without person prefixes may be interjectory structures.

The ditransitive imperative follows the general outline of the ditransitive declarative in that: (1) the Djawan expression shows no distinction from the transitive declarative and would seem to underline the
lack of a significant distinction between these two syntagmenses; (2) the Mengerei expression shows no overt second person involvement; and (3) the Gunaviji again shows a divergent structure.

The reflexive imperative is a structure which emerged in the analysis of the Gunbalang material gathered after the survey material and does not occur in this controlled data.

2.3. The Non-Verbal Clauses.

Citation Paradigm: Item-Comment

Gloss: 'your dog is a male'

<table>
<thead>
<tr>
<th>NV IC Cl</th>
<th>(I)</th>
<th>+C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gunbalang</td>
<td>ki-naypu turtuk ka-rnkarnung</td>
<td></td>
</tr>
<tr>
<td></td>
<td>you of dog he-male</td>
<td></td>
</tr>
<tr>
<td>Gunwinggu</td>
<td>nguta-ke turuk na-rangim</td>
<td></td>
</tr>
<tr>
<td></td>
<td>you of dog male-young</td>
<td></td>
</tr>
<tr>
<td>Djepmi</td>
<td>puji puji yi-karrme na-rangim</td>
<td></td>
</tr>
<tr>
<td></td>
<td>cat you have male-young</td>
<td></td>
</tr>
<tr>
<td>Dangbon</td>
<td>yniynkin rolo-rangim</td>
<td></td>
</tr>
<tr>
<td></td>
<td>your dog-male</td>
<td></td>
</tr>
<tr>
<td>De?ynekmi</td>
<td>nguta jamo-ke na-rangim</td>
<td></td>
</tr>
<tr>
<td></td>
<td>you dog-of male young</td>
<td></td>
</tr>
<tr>
<td>Djawan</td>
<td>na-rlang kiynkulu waruk</td>
<td></td>
</tr>
<tr>
<td></td>
<td>male-young your dog</td>
<td></td>
</tr>
<tr>
<td>Gunaviji</td>
<td>na-puyang larlung parrapaya</td>
<td></td>
</tr>
<tr>
<td></td>
<td>male-your male dog</td>
<td></td>
</tr>
</tbody>
</table>
The absence of an obligatory predicate tagmeme in the non-verbal clauses distinguish them from the verbal. In the item-comment non-verbal clause, the obligatory nuclear tagmeme is manifested by a descriptive adjective. There are several structural divergences from this distinction in the comparative paradigm above: (1) Mengerei has the same function of comment, but manifested by a noun urril 'man'; (2) Djepmi expresses the item function by a declarative transitive clause which could cause the clause to be interpreted as a permutation of a declarative transitive clause where the noun phrase puji puji na-rangim 'cat male' is separated by the transitive verb yi-karrme 'you have' with the translation 'you have a male cat'; (3) the Dangbon evidences a structural feature common to the Gunwingguan languages, that of the modified noun replacing the adjective gender prefix: rolo-rangim which can also be said rolo na-rangim.
Citation Paradigm: Comparative
gloss: 'he has long teeth like a dog'

<table>
<thead>
<tr>
<th>NV</th>
<th>Cp</th>
<th>Cl</th>
<th></th>
<th>(+P)</th>
<th>+Cp</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gunbalang</td>
<td>na-keyang karlyung</td>
<td>teeth  long</td>
<td>yimarna turtuk</td>
<td>like  dog</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gunwinggu</td>
<td>yetme-kuyeng</td>
<td>teeth-long</td>
<td>yiman ka-yime</td>
<td>turuk</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>like  he-tell dog</td>
</tr>
<tr>
<td>Dangbon</td>
<td>yamarr kartapun</td>
<td>teeth  long</td>
<td>je?yning ka?-yin</td>
<td>rolo</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>like  he-tell dog</td>
</tr>
<tr>
<td>De’ynekmi</td>
<td>yetme-kuyeng</td>
<td>teeth-long</td>
<td>ka-yime</td>
<td>jamo</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>he-tell dog</td>
</tr>
<tr>
<td>Djawan</td>
<td>jempuyi waruk karletmo-jiyi</td>
<td>like  dog  teeth - like</td>
<td>yirrarl pump</td>
<td>like  dog</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mengerei</td>
<td>yirrwalik inkurtamalamal</td>
<td>teeth  long</td>
<td></td>
<td>like  dog</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maung</td>
<td>nuwarntulyakut nujiki</td>
<td>long  teeth</td>
<td></td>
<td>apin luluju</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>like  dog</td>
</tr>
</tbody>
</table>
Other than Gunaviji and Djepmi, for which the informants could give no answer to a comparative elicitation, the languages show the same structure for this clause.

2.4. **Summary.**

On the clause level, the first five languages shown, Gunbalang, Gunwinggu,¹ Djepmi, Dangbon² and De'ynekmi and the last, Maung have the same syntagmemic structure and the same types of syntagmemes distinguished by the same significant features.

Mengerei differs from the above in several instances, but on the word level rather than on the clause level; therefore, it can be said to share the same structure as well.

Djawan, although it has the same structure as the first five in most instances, does not distinguish between ditransitive and transitive clauses. On this grammatical level this lack of distinction is a greater divergence than that shown by Mengerei.

Gunaviji is the most widely divergent on this level of comparison. In the material available, it does not distinguish in the manifestation of the
predicate tagmeme between intransitive, ditransitive or reflexive as do the others. Although there is an object function in the clause level syntagmeme, this is only one difference and not enough to separate the clauses. The lack of a distinction between the same syntagmmemes of the imperative clauses underlines this structural difference of Gunaviji.

3. PHRASE LEVEL CONSTRUCTIONS

3.1. The Noun Phrase.

Citation Paradigm: Noun Phrase

gloss: 'new baby'

<table>
<thead>
<tr>
<th>Nd</th>
<th>(Dd)</th>
<th>+H</th>
</tr>
</thead>
<tbody>
<tr>
<td>P</td>
<td>na-walak</td>
<td>na-kerrkun</td>
</tr>
<tr>
<td></td>
<td>male-baby</td>
<td>male-new</td>
</tr>
<tr>
<td>P</td>
<td>wujaow</td>
<td>na-kerrrange</td>
</tr>
<tr>
<td></td>
<td>baby</td>
<td>male-new</td>
</tr>
<tr>
<td></td>
<td>kerrenge</td>
<td>ngankole</td>
</tr>
<tr>
<td></td>
<td>new</td>
<td>spear</td>
</tr>
<tr>
<td>P</td>
<td>wujawo</td>
<td>jerrange</td>
</tr>
<tr>
<td></td>
<td>baby</td>
<td>new</td>
</tr>
<tr>
<td>P</td>
<td>yaow</td>
<td>kerrange</td>
</tr>
<tr>
<td></td>
<td>baby</td>
<td>new</td>
</tr>
<tr>
<td>P</td>
<td>winja</td>
<td>ngankerrangku</td>
</tr>
<tr>
<td></td>
<td>spear</td>
<td>new</td>
</tr>
<tr>
<td>P</td>
<td>karokaja</td>
<td>kekaka</td>
</tr>
<tr>
<td></td>
<td>baby</td>
<td>new</td>
</tr>
</tbody>
</table>
Mengerei  P  nimukarr  manmakurnukuk
baby  new
Maung  wurruwurru  anjila
new  spear

The controlled survey material does not yield the variety of noun phrases found in Gunbalang, but the descriptive syntagmeme is widely used and structured the same in all the languages.

On page six of the comparison of item-comment clauses, an example of the personalised noun phrase manifesting the item tagmeme shows that this phrase syntagmeme is also structured similarly in each of the languages. The one language which is different is Maung where conjunctive particles occur between the two modifiers and the noun. There is another occurrence in Maung of the same lexical phrase in the syntagmemic form equivalent to the other languages.
3.2. The Pronoun Phrase.

Citation Paradigm: Pronoun Phrases

<table>
<thead>
<tr>
<th>gloss:</th>
<th>'you and I'</th>
<th>'the two of them'</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ph&lt;sub&gt;c&lt;/sub&gt;</td>
<td>H&lt;sub&gt;c&lt;/sub&gt;&lt;sup&gt;2&lt;/sup&gt;</td>
<td>Ph&lt;sub&gt;d&lt;/sub&gt;</td>
</tr>
<tr>
<td>Gunbalang</td>
<td>nguta ngayi</td>
<td>you I</td>
</tr>
<tr>
<td>Gunwinggu</td>
<td>nguta ja ngaye</td>
<td>you and I</td>
</tr>
<tr>
<td>Dangbon</td>
<td>nge ja yning</td>
<td>I and you</td>
</tr>
<tr>
<td>De'ynekmi</td>
<td>nguta ngayi</td>
<td>you I</td>
</tr>
<tr>
<td>Djawan</td>
<td>ngiyn ngarrk</td>
<td>you I</td>
</tr>
<tr>
<td>Gunaviji</td>
<td>yniynjapa ngayap</td>
<td>you I</td>
</tr>
<tr>
<td>Mengerei</td>
<td>nu aja yap</td>
<td>you and I</td>
</tr>
<tr>
<td>Maung</td>
<td>nuyi la ngapi</td>
<td>you and I</td>
</tr>
</tbody>
</table>

In the conjunctive pronoun phrase, only two constructions are evident: (1) conjunction by juxtaposition and (2) by a conjunction. The languages here which do not use a conjunction in this manner, do not seem to do so in other instances either, such as between nouns or clauses. However, those languages
which use a conjunction here also do without it, so it would be an optional function.

The descriptive pronoun phrases are structured alike except for Maung, which includes number within the pronoun structure rather than coupling the pronoun with an adjective of number.

3.3. The Prepositional Phrase.

Citation Paradigm: Prepositional Phrases

gloss: 'to the camp' 'like a dog'

<table>
<thead>
<tr>
<th>PP₁ + R₁ + A₁</th>
<th>PPᵦ + Rᵦ + Aᵦ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gunbalang korro yalpi</td>
<td>yimarna turtuk</td>
</tr>
<tr>
<td>to camp</td>
<td>like dog</td>
</tr>
<tr>
<td>Gunwinggu kore kuret</td>
<td>yiman ka-yime turuk</td>
</tr>
<tr>
<td>to camp</td>
<td>like he-say dog</td>
</tr>
<tr>
<td>Djepmi kurrurrk-pe</td>
<td>je'yning ka'yin rolo</td>
</tr>
<tr>
<td>cave-from</td>
<td>like say dog</td>
</tr>
<tr>
<td>Dangbon wata-ka</td>
<td>kayime jamo</td>
</tr>
<tr>
<td>camp-to</td>
<td>say dog</td>
</tr>
<tr>
<td>De'ynekmi kuwata</td>
<td>jempuyi waruk</td>
</tr>
<tr>
<td>camp</td>
<td>like dog</td>
</tr>
<tr>
<td>Djawan ler-luk</td>
<td></td>
</tr>
<tr>
<td>camp-to</td>
<td></td>
</tr>
<tr>
<td>Gunaviji wipa-ra</td>
<td></td>
</tr>
<tr>
<td>camp-to</td>
<td></td>
</tr>
<tr>
<td>Mengerei merrekengk</td>
<td>yirrarl pump</td>
</tr>
<tr>
<td>camp</td>
<td>like dog</td>
</tr>
<tr>
<td>Maung tuka kunak</td>
<td>apin lulu</td>
</tr>
<tr>
<td>there camp</td>
<td>like dog</td>
</tr>
</tbody>
</table>
Only Gunwinggu, Gunbalang and Maung have a phrase structure which manifests the location function of a clause, the others manifest this function with a word-level structure; e.g. Dangbon: wata-ka has a locative suffix -ka, forming from the noun 'camp' a location word 'to the camp'. Of the three structures, the Maung compares with its own descriptive noun phrase, tuka being a demonstrative showing concordance with the noun class of kunak.

As mentioned when discussing the comparative clauses above, there is no example for Djepmi and Gunaviji. Of the others, four have a simple comparative phrase: Gunbalang, Djawan, Mengerei and Maung. The remaining three show a manifestation of the relator function in an idiomatic expression including the verb 'he says'. The phrase structure is the same in the seven, differing only in the exponents of the relator tagmeme. Since Gunbalang also has the idiomatic expression 'he says', although it is less often used, this difference between the languages would seem slight.

3.4. **Summary.**

All nine languages show the same descriptive and personalised noun phrase structure.
In the pronoun conjunction phrase, Gunwinggu, Dangbon, Mengerei and Maung use a conjunctive particle whereas the other four, Gunbalang, De'ynekmi, Djawan and Gunaviji, (there is no example for Djepmi) rely on juxtaposition to show conjunction. As the particle is in optional occurrence, the comparative distinction is not great. Only Maung differs in the structure of the descriptive pronoun phrase, including the descriptive number in the pronoun word structure.

Only Gunbalang, Gunwinggu and Maung manifest the locative phrase on the clause level with a phrase syntagmeme, the other languages do so with word syntagmemes. Of these phrase syntagmemes, Maung uses a descriptive noun phrase while Gunbalang and Gunwinggu use prepositional phrases. There is only the one relator-axis phrase structure in Maung, the comparative prepositional phrase. This it shares with the other six (there are no examples for Djepmi or Gunaviji). The difference between the structures is in the exponent of the relator function and as this same exponent occurs, but less frequently, in the others, the distinction seems small.
4. WORD LEVEL CONSTRUCTIONS

4.1. The Verb.

4.1.1. The Verb Syntagmemes.

**Formal Paradigm: Verb Transitive**

<table>
<thead>
<tr>
<th>Language</th>
<th>Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gunbalang</td>
<td>$v_{tr-\text{pos}} \rightarrow s_{tr-\text{pos}} (+t_{\text{pres}}) +o +nu_{tr} (+t_{pa})(+as)$</td>
</tr>
<tr>
<td>Gunwinggu</td>
<td>$v_{tr} \rightarrow (s_{tr})(+o) (+m) +nu_{tr} +t (+as)$</td>
</tr>
<tr>
<td>Djepmi</td>
<td>$v_{tr} \rightarrow (s_{tr})(+o) +nu_{tr} +t (+as)$</td>
</tr>
<tr>
<td>Dangbon</td>
<td>$v_{tr-\text{pos}} \rightarrow s (+o)(+m) +nu_{tr} +t (+as)$</td>
</tr>
<tr>
<td>De?ynekmi</td>
<td>$v_{tr} \rightarrow (s)(+o) +nu_{tr} +t (+as)$</td>
</tr>
<tr>
<td>Djawan</td>
<td>$v_{tr} \rightarrow (s)(+o)(+t) +nu_{tr} (+as)(+t)$</td>
</tr>
<tr>
<td>Gunaviji</td>
<td>$v_{tr-\text{pos}} \rightarrow (s)(+o) +nu_{tr-\text{pos}} (+as) +t$</td>
</tr>
<tr>
<td>Mengerei</td>
<td>$v_{tr} \rightarrow (s_{tr})(+o) +t +nu_{tr} (+as)(+m)$</td>
</tr>
<tr>
<td>Maung</td>
<td>$v_{tr-\text{pos}} \rightarrow (s_{tr-\text{pos}}) +o (+t) +nu_{tr} (+t)$</td>
</tr>
</tbody>
</table>

As a result of the complex morphology of these Aboriginal languages, the highly divergent word structure (rather than clause or phrase structure) does not come as a surprise. Also, since the languages are predicate-centered, it follows that there may be more diversity in the structure of the verbs than in other word level structures such as nouns.
The general feature which unites these languages and forms the basis of Capell's classification, is that the morphemes of person are prefixed to the verb nucleus. Each of these languages distinguishes the transitive verb from others by the inclusion of an object prefix and a limitation on the manifestation of the nuclear function to verb stems which can occur with an object prefix. In general, the structures are notably similar.

Gunbalang distinguishes between the positive and negative verb syntagmemes because of the difference between person prefixes which occur with the two verbs. Dangbon and Maung also make this distinction. The occurrence of the negative person in Gunbalang corresponds with the aspect function being manifested by the negative aspect morpheme. Because the remaining languages form the negative verb construction by a negative aspect morpheme only, separate syntagmemes for the negative and positive are not postulated.

When occurring in isolation, the person prefixes are always required in all of the languages. However, in several of the languages it will be noticed that
the person tagmemes are optional and are so designated because when occurring with clause level person tagmemes (e.g. nouns, pronouns) these functions are optional to the verb. The object tagmeme may be expounded by a noun contraction in each.

In the languages, Gunbalang, Djawan and Maung, which have two tense tagmemes, rather than one, the optional occurrence of those tagmemes is qualified in that only one may occur at a time but at least one must occur. An interesting feature of Dangbon and Gunwinggu is the mode function. This tagmeme is shown as a prefix to the verb nucleus but may also occur as a first-order suffix. It is distinct from the aspect function because the two sometimes occur simultaneously, and it is manifested by a set of fillers which modify the verb (e.g. as would an adverb) rather than change it. Mengerei also has a mode function which occurs as a suffix, the tense function occurring as a prefix contrary to the other language structures.
Citation Paradigm: Verb Transitive

gloss: 'he buried the meat'

Gunbalang  ka- jujam
           s:he-nu:buried

Gunwinggu ka- kayn- tuje- ng
            s:he-o:meat-nu:bury-t:past

Djepmi    ka- kayn- tuje- ng
            s:he-o:meat-nu:bury-t:past

Dangbon   ka?- kayn- mutka- ng
            s:he-o:meat-nu:bury-t:past

De”?ynekmi ka- kayn- tuje- ng
            s:he-o:meat-nu:bury-t:past

Djawan    ka- kantaj-keja- ng
            s:he-o:meat-nu:bury-t:past

Gunaviji  ka- n- morropu- ya
            s:he-o:it-nu:bury-t:past

Mengerei  na- yakap
            s/o:he/it-nu:bury

Maung     kini- yurrji- yn
            s/o:he/meat-nu:bury-t:past

Mengerei and Maung have a portmanteau subject/object tagmeme which in Mengerei also carries a tense distinction. The other languages share this same feature but it is not obvious in the third-person-singular. This feature will be compared below when discussing the exponents of the verbal tagmemes.
**Formal Paradigm: Intransitive**

<table>
<thead>
<tr>
<th>Language</th>
<th>Verb Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gunbalang</td>
<td>( v_{\text{int-pos}} \to s_{\text{int-pos}} (t^{\text{pr}}) +nu_{\text{int}} (t^{\text{pa}})(+as) )</td>
</tr>
<tr>
<td>Gunwinggu</td>
<td>( v_{\text{int}} \to (s_{\text{int}})(+m) +nu_{\text{int}} +t (+as) )</td>
</tr>
<tr>
<td>Djepmi</td>
<td>( v_{\text{int}} \to (s_{\text{int}}) +nu_{\text{int}} +t (+as) )</td>
</tr>
<tr>
<td>Dangbon</td>
<td>( v_{\text{int-pos}} \to s (+m) +nu_{\text{int}} +t (+as) )</td>
</tr>
<tr>
<td>De?ynekmi</td>
<td>( v_{\text{int}} \to s +nu_{\text{int}} +t (+as) )</td>
</tr>
<tr>
<td>Djawan</td>
<td>( v_{\text{int}} \to (s)(+t) +nu_{\text{int}} (+as)(+t) )</td>
</tr>
<tr>
<td>Gunaviji</td>
<td>( v_{\text{int-pos}} \to (s) +nu_{\text{int}} (+as) +t )</td>
</tr>
<tr>
<td>Mengerei</td>
<td>( v_{\text{int}} \to (s_{\text{int}}) +t +nu_{\text{int}} (+as) )</td>
</tr>
<tr>
<td>Maung</td>
<td>( v_{\text{int-pos}} \to s_{\text{int}} (+t) +nu_{\text{int}} (+t) )</td>
</tr>
</tbody>
</table>

In designating the verbal nucleus as transitive or intransitive, it is not meant that the exponent of the nuclear function shows in its structure that it is either transitive or intransitive. Rather, there is a limited set of verbal stems which expounds the nuclear function when occurring with an object function in the verbal syntagmeme. The intransitive nucleus is, therefore, expounded by that set of verbal stems occurring with the intransitive subject function and not occurring with the object function of the transitive syntagmeme.
Although De’ynekmi does not show a difference between the subject tagmeme of the transitive and that of the intransitive verbal syntagmeme, the language is so similar to Gunwinggu that one would expect further language data to reveal such a structural similarity. This would leave Dangbon, Djawan and Gunaviji as the languages which differ structurally from the others on this point.

An interesting feature of Mengerei is the occurrence of the tense function as a prefix whereas it occurs as a suffix in the other languages. In some instances, it seems to be included in the subject function and inseperable as a morpheme. Several of the languages which distinguish between transitive and intransitive subjects also correlate one set of person prefixes with the occurrence of present tense and another set with the past tense (e.g. Gunbalang, Maung).
Citation Paradigm: Intransitive
gloss: 'I will stay'

Gunbalang \( \text{nga-na} \) \\
I -sit

Gunwinggu \( \text{nga-ni} \) \\
I -sit

Djepmi \( \text{nga-ni} \) \\
I -sit

Dangbon \( \text{nga?-ni-ngiyana} \) \\
I -sit-cont

De'ynekmi \( \text{nga-ni} \) \\
I -sit

Djawan \( \text{nga-pujiyi} \) \\
I -sit

Gunaviji \( \text{nga-yagana} \) \\
I -sit cont

Mengerei \( \text{ye-ni} \) \\
I -sit

Maung \( \text{nga-wani} \) \\
I -sit

Formal Paradigm: Ditransitive

\[
\begin{align*}
\text{Gunbalang} & \quad v_{\text{di-pos}} \rightarrow s_{\text{tr-pos}} (+t_{\text{pres}}) + o + i o + n u_{\text{tr}} (+t_{\text{pa}}) (+\text{as}) \\
\text{Gunwinggu} & \quad v_{\text{di}} \rightarrow (s_{\text{tr}})(+o) + i o (+m) + n u_{\text{tr}} + t (+\text{as}) \\
\text{Djepmi} & \quad v_{\text{di}} \rightarrow (s_{\text{tr}})(+o) + i o + n u_{\text{tr}} + t (+\text{as}) \\
\text{Dangbon} & \quad v_{\text{di-pos}} \rightarrow s (+o) + i o (+m) + n u_{\text{tr}} + t (+\text{as}) \\
\text{De'ynekmi} & \quad v_{\text{di}} \rightarrow (s)(+o) + i o + n u_{\text{tr}} + t (+\text{as})
\end{align*}
\]
It will be remembered from the discussion on ditransitive clauses that the distinction between the transitive and ditransitive structures is the presence in the verb syntagmeme of an indirect object tagmeme. The presence of the indirect object tagmeme, and the fact that it predicts the occurrence of a third *dramatis personae* on the clause level of the grammatical hierarchy, together form the basis for separating the ditransitive verb syntagmeme from the transitive. Djawan and Gunaviji do not make a distinction between ditransitive and other verb syntagmemes. Mengerei and Maung make such a distinction between ditransitive and transitive on the clause level but not on the word level.

**Citation Paradigm: Ditransitive**

gloss: 'I will cook it for you'

- Gunbalang: \(\text{nga-yn-} \ ngun-marnayn-\text{kiyne}\)
  \(I\)-pres-\(you\)-for-cook

- Gunwinggu: \(\text{marne-\text{kiyne}}\)
  for-cook

- Djepmi: \(\text{marne-\text{kiyne}}\)
  for-cook

- Dangbon: \(\text{ja?-marne-kin}\)
  you-for-cook

- De'ynekmi: \(\text{marne-\text{kiyne}}\)
  for-cook
Gunwinggu, Djepmi and De?ynekmi do not always prefix the personal pronoun bound forms to the verb if these person functions are manifested on the clause level, e.g. Gunwinggu: ngaye manmi marnekiyne
S:I O:food for-cook
'I will cook the food for you'.

Formal Paradigm: Reflexive

Gunbalang  \( v_{\text{ref}} + s_{\text{tr}} (+o) +nu +\text{ref} \)
Gunwinggu  \( v_{\text{ref}} + s_{\text{tr}} (+o) +nu +\text{ref} \)
Djepmi     \( v_{\text{ref}} + s_{\text{tr}} (+o) +nu +\text{ref} \)
Dangbon    \( v_{\text{ref}} + s (+o) +nu +\text{ref} \)
De?ynekmi  \( v_{\text{ref}} + s (+o) +nu +\text{ref} \)
Djawan     \( v_{\text{ref}} + s (+o) +nu +\text{ref} \)
Mengerei   \( v_{\text{ref}} + s (+o) +nu +\text{ref} \)
Maung      \( v_{\text{ref}} + s_{\text{tr}} (+o) +nu +\text{ref} \)

Gunaviji appears to be the only language which does not have a reflexive verb syntagmeme distinct from the transitive. The features which make this syntagmeme distinct from the transitive verb in the other languages, are (a) the occurrence of a reflexive suffix and (b) the lack of any other tense or mode functions when the reflexive function is present.
In the situations which drew a reflexive response in the languages, Gunaviji used a verbal form ending in -ya several times. This same ending, however, occurs on verbs whose situation has nothing of the reflexive in it and is, therefore, taken as a tense or aspect marker.

**Citation Paradigm: Reflexive**

gloss: 'I washed myself'

<table>
<thead>
<tr>
<th>Language</th>
<th>Verb Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gunbalang</td>
<td>nga-pu yi-ngurr</td>
</tr>
<tr>
<td></td>
<td>I-hit-self-wash</td>
</tr>
<tr>
<td>Gunwinggu</td>
<td>nga-jirritpu-rren</td>
</tr>
<tr>
<td></td>
<td>I-wash-self</td>
</tr>
<tr>
<td>Djepmi</td>
<td>nga-yeokme-rren</td>
</tr>
<tr>
<td></td>
<td>I-wash-self</td>
</tr>
<tr>
<td>Dangbon</td>
<td>nga?-kuk-jirritpu-rren</td>
</tr>
<tr>
<td></td>
<td>I-body-wash-self</td>
</tr>
<tr>
<td>De'ynekmi</td>
<td>nga-yeokme-rren</td>
</tr>
<tr>
<td></td>
<td>I-wash-self</td>
</tr>
<tr>
<td>Djawan</td>
<td>nga-walarrkmi-yintin</td>
</tr>
<tr>
<td></td>
<td>I-wash-self</td>
</tr>
<tr>
<td>Mengerei</td>
<td>nga-mendeyun-mek</td>
</tr>
<tr>
<td></td>
<td>I-wash me-self</td>
</tr>
<tr>
<td>Maung</td>
<td>nga-wiynpu-yn</td>
</tr>
<tr>
<td></td>
<td>I-wash-self</td>
</tr>
</tbody>
</table>
Djawan, Gunaviji and Maung appear to form the negative aspect of a statement by the addition of a negative tagmeme on the clause level rather than by a negative aspect in the verb syntagmeme. The other languages, in addition to the negative tagmeme on the clause level, have a negative aspect in the verb construction. Mengerei has a negative prefix to the verb whereas the others have a negative suffix. This corresponds with a general structural difference in the Mengerei verb, for where the other languages have tense suffixes Mengerei has a tense prefix.

It will be remembered that, in order to separate out a syntagmeme there must be at least two structural
differences. The Gunbalang negative verb construction has two differences from the positive verb: (a) the subject tagmeme is manifested by a class of pronouns different from those manifesting the subject tagmeme of the positive verb, (b) the negative suffix replaces other tense or aspect functions. The formulas for the negative verb in Gunwinggu, Djepmi, Dangbon, De'ynekmi and Mengerei, however, show only one difference, that of a negative aspect. In these languages then, the negative verb is not significantly distinct from the positive, but is rather an alternative reading of the positive verb syntagmeme.

Citation Paradigm: Negative

gloss: 'you did not put the fire out'

Gunbalang  
/ki-nguluk-tompu-ni/
you-fire-extinguish-negative

Gunwinggu  
/yi-rrompu-yi/
you-extinguish-negative

Djepmi  
/yi-rrompu-yi/
you-extinguish-negative

Dangbon  
/ja?-wol-tompu-yi/
you-fire-extinguish-negative

De'ynekmi  
/yi-weleng-pili-rrompu-yi/
you-?-fire-extinguish-negative

Mengerei  
/ma-narl-yankaj/
you-negative-extinguish

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Each of these languages has a clause level negative tagmeme which may or may not occur with the negative verb, but never occurs with a positive verb. However, the languages which do not have a negative verb syntagmeme, Djawan, Gunaviji and Maung, it is the clause level negative tagmeme occurring with a positive verb which conveys negation.

4.1.2. Summary.

A general uniting feature of these languages is the occurrence in each of pronoun prefixes showing the person, number and dramatic status (subject, object) of those involved in the action. Each language also may include an abbreviated noun in the object prefix. This occurrence of an object prefix to the verb is one distinguishing feature of the transitive verb syntagmeme, its obligatory lack of occurrence plus an intransitive nucleus signifying an intransitive verb syntagmeme. All of the languages share this distinction between the transitive and intransitive verb.

Only five of the languages, Gunbalang, Gunwinggu, Djepmi, Dangbon and De'ynekmi distinguish a ditransitive
verb syntagmeme on the basis of (a) the occurrence of an indirect object prefix to the verb and (b) its prediction of a third dramatis personae on the clause level. Mengerei and Maung make this distinction only on the clause level; Djawan and Gunaviji do not make the distinction on either level.

All of the languages except Gunaviji express reflexive action on the word level by a suffix on the verb. Three of the languages, Djawan, Gunaviji and Maung do not have a negative aspect to the verb. Gunbalang has not only a negative aspect but also a negative subject, and thus the negative verb is a distinct structure. In Gunwinggu, Djepmi, Dangbon, De'ynekmi and Mengerei, however, there are not these two differences between the positive and negative verb. The negative verb does predict the occurrence of a negative tagmeme on the clause level and is, thus, in these latter languages, also a distinct structure.

There are several interesting differences in the tagmemes and their manifestations included in the syntagmemes of the various languages. (a) In Gunwinggu, Djepmi, De'ynekmi, Djawan, Gunaviji and
Mengerei the person prefixes are optional because once the subject of an action is mentioned in a discourse, it need not be repeated; and if a noun subject occurs on the clause level, its person and number need not be repeated in the pronoun prefix to the verb. (b) Gunwinggu, Dangbon and Mengerei have a mode function which is manifested by descriptive morphemes distinct from the tense and aspect functions. (c) Mengerei has a tense and negative function as prefixes to the verb nucleus, whereas in the other languages they occur as suffixes; or as in Gunbalang, Djawan and Maung, the tense may occur as a prefix or suffix depending on the morpheme and nucleus classes. (d) Maung\(^3\) has a complicated system of classifying the bound pronouns, distinguishing between four classes of noun referred to in the subject and object, further dividing the resultant sixteen forms into past and present tense.

4.1.3. Exponents of the Verbal Tagmemes.

The Nucleus

The internal structure of the verb root or stem which manifests the nucleus function of the verb syntagmeme is of three types: (a) simple, (b) compound,
and (c) reduplicative; with a fourth (d) derived, in some of the languages.

<table>
<thead>
<tr>
<th>Simple</th>
<th>Compound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gunbalang</td>
<td>-ka 'go' -puyn 'hit' -ma 'make'</td>
</tr>
<tr>
<td></td>
<td>-mij-puyn 'meet' -yak-puyn 'pour' -ngayn-ka 'come'</td>
</tr>
<tr>
<td>Gunwinggu</td>
<td>-ka 'take'</td>
</tr>
<tr>
<td>(Djepmi and De'ynekmi)</td>
<td>-pu 'hit' -ma 'do'</td>
</tr>
<tr>
<td>Dangbon</td>
<td>-ka 'convey'</td>
</tr>
<tr>
<td></td>
<td>-wut-ka 'to fib' -tayn-pu 'to spear' -wulup-ma 'to swim'</td>
</tr>
<tr>
<td>Djawan</td>
<td>-ka 'go'</td>
</tr>
<tr>
<td></td>
<td>-korr-ka 'to carry' -ta.jke-pu 'to bury' -jarr-ma 'to pierce'</td>
</tr>
<tr>
<td>Gunaviji</td>
<td>-yarra 'to go' -lerrrra 'to come'</td>
</tr>
<tr>
<td></td>
<td>-lerr 'to return' -ji 'to say' -pu-ji 'to call out'</td>
</tr>
<tr>
<td>Mengerei</td>
<td>-yayn 'to stand' -min 'to go'</td>
</tr>
<tr>
<td></td>
<td>-kurrk-yayn 'to stand up' -mini-kurrk 'to jump'</td>
</tr>
<tr>
<td>Maung</td>
<td>-ni 'to give'</td>
</tr>
<tr>
<td></td>
<td>-pay-ni 'to put down' -werrk-pu 'to sew'</td>
</tr>
</tbody>
</table>

Curr's comment on the consistent patterns of thought shown in all Australian Aboriginal languages is echoed by Capell and others. A striking example here is in the simple roots of Gunbalang, Gunwinggu, Djepmi, Dangbon, De'ynekmi and Djawan, for not only
are the meanings of the three roots shown similar
but also combine to form compound roots in the same
way. Gunaviji, Mengerei and Maung form compounds
in the same way as do the others, but except for the
root -pu in Maung there is no overt similarity in the
forms.

<table>
<thead>
<tr>
<th>Reduplicative</th>
<th>Derived</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gunbalang -kulkkulk</td>
<td>'to run'</td>
</tr>
<tr>
<td>Gunwinggu -marrmarr</td>
<td>-ko?payn-miyn 'to be old'</td>
</tr>
<tr>
<td></td>
<td>aj:old -to be</td>
</tr>
<tr>
<td>Djepmi -lopmilopmi</td>
<td>'to run'</td>
</tr>
<tr>
<td></td>
<td>-ngujwarre-miyn 'to be tired'</td>
</tr>
<tr>
<td></td>
<td>aj:weak -to be</td>
</tr>
<tr>
<td>Dangbon -wurltwurlt</td>
<td>'to be hot'</td>
</tr>
<tr>
<td>De?ynekmi -titi</td>
<td>-warre-miyn 'to be bad'</td>
</tr>
<tr>
<td></td>
<td>aj:bad-to be</td>
</tr>
<tr>
<td>Djawan -torotoro</td>
<td>'to run'</td>
</tr>
<tr>
<td></td>
<td>-nguj-brerkjiyn 'to be tired'</td>
</tr>
<tr>
<td></td>
<td>aj:weak-to be</td>
</tr>
<tr>
<td>Gunaviji -karakara</td>
<td>'to flow'</td>
</tr>
<tr>
<td>Mengerei -kurlukurlp</td>
<td>'to swallow'</td>
</tr>
<tr>
<td>Maung -juju</td>
<td>'to walk'</td>
</tr>
</tbody>
</table>

Reduplication is a common feature of all the
languages except Gunaviji and Mengerei, and even
Mengerei makes wider use of it than does Gunaviji.
In Djawan reduplication of the final syllable -ka,
-ma and -pu signals continuous action, thus redupli-
cation has a grammatical position. Often the stems
formed in this manner are onomatopoeic, i.e. -kurlukurlp 'to swallow'.

In all of the languages except Gunaviji, adjectives may occur with the verbal person prefixes. These constructions occur as manifestations of the comment tagmeme in item-comment clauses. Because this construction cannot occur wherever a verb may occur, it is not termed a derived construction. Those verbs which are derived from adjective stems by the addition of a derivational morpheme, i.e. -miyn and -brerkjiyn, may occur as a verb. There is evidence of this type of construction only in Gunwinggu, Djepmi, De'ynekmi and Djawan.

The Person

All of the languages in this study distinguish between the bound pronouns manifesting the intransitive subject tagmeme and the transitive subject and object tagmemes. Often the intransitive subject and object tagmemes are manifested by a portmanteau bound form.

Also, in six out of the nine languages, there is a distinction between those bound forms occurring with the present tense and those occurring with the past
tense. (This dichotomy is not carried through to the free form pronouns as is the transitive-intransitive dichotomy.) As was mentioned earlier, Maung has even further subgroupings of the pronoun bound forms, distinguishing the noun class of any object involved in the action of the verb.

Only Gunbalang appears to have a negative pronoun form which occurs manifesting the subject tagmeme of the negative verb syntagmeme. The presence of these characteristics are shown in the following chart.

<table>
<thead>
<tr>
<th>Language</th>
<th>int/tr</th>
<th>pa/pres</th>
<th>pos/neg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gunbalang</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Gunwinggu</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Djepmi</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Dangbon</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>De'ynekmi</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Djawan</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gunaviji</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mengerei</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Maung</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>

Some examples of the subgroups in each language will be given in the following paradigm.
<table>
<thead>
<tr>
<th>intransitive</th>
<th>transitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gunwinggu</td>
<td></td>
</tr>
<tr>
<td>present</td>
<td>kapirri-re</td>
</tr>
<tr>
<td></td>
<td>they-are going</td>
</tr>
<tr>
<td>past</td>
<td>pirri-wam</td>
</tr>
<tr>
<td></td>
<td>they-went</td>
</tr>
<tr>
<td>Djepmi</td>
<td></td>
</tr>
<tr>
<td>present</td>
<td>kaparri-ni</td>
</tr>
<tr>
<td></td>
<td>they-sit</td>
</tr>
<tr>
<td>past</td>
<td>parri-wam</td>
</tr>
<tr>
<td></td>
<td>they-went</td>
</tr>
<tr>
<td>Dangbon</td>
<td></td>
</tr>
<tr>
<td></td>
<td>pala?-pon</td>
</tr>
<tr>
<td></td>
<td>they-went</td>
</tr>
<tr>
<td>De'ynekmi</td>
<td></td>
</tr>
<tr>
<td>present</td>
<td>ka-mankan</td>
</tr>
<tr>
<td></td>
<td>he-falls</td>
</tr>
<tr>
<td>past</td>
<td>pa-mankang</td>
</tr>
<tr>
<td></td>
<td>he-fell</td>
</tr>
<tr>
<td>Djawan</td>
<td></td>
</tr>
<tr>
<td></td>
<td>yi-nangku</td>
</tr>
<tr>
<td></td>
<td>you-talking</td>
</tr>
<tr>
<td>Gunaviji</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ja-palerra</td>
</tr>
<tr>
<td></td>
<td>you-had come</td>
</tr>
<tr>
<td>Mengerei</td>
<td></td>
</tr>
<tr>
<td>present</td>
<td>nga-num</td>
</tr>
<tr>
<td></td>
<td>I-am talking</td>
</tr>
<tr>
<td>past</td>
<td>munyi-wajelpirr</td>
</tr>
<tr>
<td></td>
<td>they-turned back</td>
</tr>
<tr>
<td>Maung</td>
<td></td>
</tr>
<tr>
<td>present</td>
<td>nga-na</td>
</tr>
<tr>
<td></td>
<td>I-go</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>past</td>
<td>ngu-ran</td>
</tr>
<tr>
<td></td>
<td>I-went</td>
</tr>
</tbody>
</table>
The Tense

In all of the languages except Mengerei, the tense morpheme is suffixed to the verb nucleus. In several of these languages, namely Gunbalang, Djawan and Maung, the tense morpheme may occur as a prefix or suffix to the verb nucleus depending on the class of the exponent of the tense tagmeme; i.e. in Gunbalang, the present tense occurs as a prefix and the past tense occurs as a suffix. It is a feature of the languages in which the tense may occur as a prefix that often a portmanteau form expounds the combined function of subject and tense, including the function of object in the intransitive verbs.

<table>
<thead>
<tr>
<th>Present</th>
<th>Past</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gunbalang</td>
<td></td>
</tr>
<tr>
<td>pata-ngaynka</td>
<td>kata-kirtayn</td>
</tr>
<tr>
<td>they-are returning</td>
<td>they-went</td>
</tr>
<tr>
<td>ka-jin</td>
<td>ka-jarrang</td>
</tr>
<tr>
<td>he-eats</td>
<td>he-ate</td>
</tr>
<tr>
<td>Gunwinggu</td>
<td></td>
</tr>
<tr>
<td>ka-ngun</td>
<td>ka-ngun-eng</td>
</tr>
<tr>
<td>he-eats</td>
<td>he-eat-past</td>
</tr>
<tr>
<td>Djepmi</td>
<td></td>
</tr>
<tr>
<td>ka-ngun</td>
<td>ka-ngun-eng</td>
</tr>
<tr>
<td>he-eats</td>
<td>he-eat-past</td>
</tr>
<tr>
<td>Dangbon</td>
<td></td>
</tr>
<tr>
<td>nga?-ngun</td>
<td>nga?-ngu-yan</td>
</tr>
<tr>
<td>I-eat</td>
<td>I-eat-will</td>
</tr>
<tr>
<td>De'?ynekmi</td>
<td></td>
</tr>
<tr>
<td>ka-turnnte</td>
<td>ka-turnnte-ng</td>
</tr>
<tr>
<td>he-turns</td>
<td>he-turn-past</td>
</tr>
<tr>
<td>Djawan</td>
<td></td>
</tr>
<tr>
<td>nganganta-jarra</td>
<td>nganganta-jeyn</td>
</tr>
<tr>
<td>I-it meat-eat</td>
<td>I-it meat-ate</td>
</tr>
<tr>
<td></td>
<td>Present</td>
</tr>
<tr>
<td>-------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>Gunaviji</td>
<td>nga-pura</td>
</tr>
<tr>
<td></td>
<td>I -am hitting</td>
</tr>
<tr>
<td>Mengerei</td>
<td>munuyn-wujelpirr</td>
</tr>
<tr>
<td></td>
<td>they pres-return</td>
</tr>
<tr>
<td>Maung</td>
<td>ngayn-yarna-ngart</td>
</tr>
<tr>
<td></td>
<td>I -it pres-extinguish</td>
</tr>
<tr>
<td></td>
<td>ngaruri-katpu-nun</td>
</tr>
<tr>
<td></td>
<td>we -it to them-give</td>
</tr>
</tbody>
</table>

The Mode and Aspect

Only three of the languages seem to have a mode tagmeme, Gunwinggu, Dangbon and Mengerei; whereas all of the languages except Maung have an aspect tagmeme. The difference between the two tagmemes is that (1) the mode morpheme modifies the verb but does not necessarily relate the verb to other tagmemes on a level higher than the word level, whereas (2) the aspect morpheme relates the verb to phrase and clause level tagmemes such as negation and emphatic person.
<table>
<thead>
<tr>
<th>Mode</th>
<th>Aspect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gunbalang</td>
<td>kíngan-karrme-li</td>
</tr>
<tr>
<td></td>
<td>you me-hold-didn't</td>
</tr>
<tr>
<td>Gunwinggu</td>
<td>ka-m-yawoy?-re</td>
</tr>
<tr>
<td></td>
<td>ngan-karrme-niyn</td>
</tr>
<tr>
<td></td>
<td>he-towards-again-comes</td>
</tr>
<tr>
<td></td>
<td>you me-hold-didn't</td>
</tr>
<tr>
<td></td>
<td>'he came again'</td>
</tr>
<tr>
<td>Djepmi</td>
<td>kan-karrme-niyn</td>
</tr>
<tr>
<td></td>
<td>he me-hold-didn't</td>
</tr>
<tr>
<td>Dangbon</td>
<td>nga?-jeli-kan</td>
</tr>
<tr>
<td></td>
<td>nga?-par?tu-rrin</td>
</tr>
<tr>
<td></td>
<td>I-as a result-got it</td>
</tr>
<tr>
<td></td>
<td>I-will-paint-self</td>
</tr>
<tr>
<td>De'ynekmi</td>
<td>nga-veokme-rren</td>
</tr>
<tr>
<td></td>
<td>I-washed-self</td>
</tr>
<tr>
<td>Djawan</td>
<td>nga-wadlkpu-yintin</td>
</tr>
<tr>
<td></td>
<td>I-painted-self</td>
</tr>
<tr>
<td>Gunaviji</td>
<td>ka-wulerri-ya</td>
</tr>
<tr>
<td></td>
<td>he-comes -himself</td>
</tr>
<tr>
<td>Mengerei</td>
<td>ya-marntap-ak</td>
</tr>
<tr>
<td></td>
<td>nga-menteyun-mek</td>
</tr>
<tr>
<td></td>
<td>I-wash -self</td>
</tr>
</tbody>
</table>

4.1.4. Summary.

The internal structure of the verb root or stem manifesting the verb nucleus conforms to three types in all of the languages, simple, compound and reduplicative; with a fourth type, derived stems, occurring in Gunwinggu, Djepmi, De'ynekmi and Djawan. As interesting as the structural conformity, is the semantic conformity shown in the consistent pairing of meanings to form compounds similar in each of the languages; i.e. Gunwinggu: -ka 'to take, go' compounded with tol- 'to propel' gives the stem.
-tolka 'to stand'; Mengerei: -yayn 'to stand' compounded with kurrk- 'to propel' gives the stem -kurrkyayn 'to stand up'.

In all of the languages the bound pronouns are divided into several classes based on the transitivity of the verb syntagmeme; and in six of the nine languages, Gunbalang, Gunwinggu, Djepmi, De'ynekmi, Mengerei and Maung, the division is based also on the tense of the verb. Maung has other classes of the bound pronouns, in addition to these two divisions, based on the noun class for which the pronoun is in substitution.

Mengerei shows the tense of its verb in a prefix, often in a portmanteau form including the pronoun person prefix. In Gunbalang, Djawan and Maung the tense may occur either as a prefix or suffix, according to the class of the exponential morpheme; and, like Mengerei, when occurring as a prefix it may be included with the person pronoun as a portmanteau morpheme. In Gunwinggu, Djepmi, Dangbon, De'ynekmi, Gunaviji and Maung the tense is a suffix.
Maung appears to express verbal aspect in phrase or clause level functions and not in word level as do all the other languages in which aspect is a function expressed in the verb syntagmeme by a suffix. The mode function occurs in the verb syntagmeme in only three of the languages, Gunwinggu, Dangbon and Mengerei; occurring as a higher grammatical level function in the other languages.

4.2. The Noun.

There are two areas of comparison of the noun structure, (1) whether the nouns are divided into gender classes which are signified by (a) noun affixes and/or (b) concordance with adjective classes; and (2) the internal structure of the noun nucleus, simple, compound or reduplicative.
## Citation Paradigm: Gender Prefixes

<table>
<thead>
<tr>
<th>Language</th>
<th>Gunbalang</th>
<th>Gunwinggu</th>
<th>Djepmi</th>
<th>Djawan</th>
<th>Gunaviji</th>
<th>Mengerei</th>
</tr>
</thead>
<tbody>
<tr>
<td>Root</td>
<td>na-walak</td>
<td>na-jatmut</td>
<td>na-kanteken</td>
<td>ngan-ngantaj</td>
<td>karokaja</td>
<td>iyni-leynjumun</td>
</tr>
<tr>
<td>Gender</td>
<td>masc-baby</td>
<td>masc-single</td>
<td>masc-dingo</td>
<td>masc-meat</td>
<td>male baby</td>
<td>masc-baby</td>
</tr>
<tr>
<td>Gender</td>
<td>'boy'</td>
<td>'single man'</td>
<td>'dingo'</td>
<td>'meat'</td>
<td>'baby'</td>
<td>'boy baby'</td>
</tr>
<tr>
<td>Gender</td>
<td>fem-baby</td>
<td>fem-single</td>
<td>fem-rainbow</td>
<td>fem-woman</td>
<td>fem-baby</td>
<td>fem-baby</td>
</tr>
<tr>
<td>Gender</td>
<td>'girl'</td>
<td>'single girl'</td>
<td>'rainbow'</td>
<td>'woman'</td>
<td>'boy'</td>
<td>'baby girl'</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>ma-wayuk</td>
<td>ngal-jatmut</td>
<td>ngal-yot</td>
<td>ngal-muka</td>
<td>yna-karokaja</td>
<td>irri-leynjumun</td>
</tr>
<tr>
<td>Gender</td>
<td>neuter-shadow</td>
<td>fem-single</td>
<td>fem-rainbow</td>
<td>fem-woman</td>
<td>fem-baby</td>
<td>fem-baby</td>
</tr>
<tr>
<td>Gender</td>
<td>'spirit'</td>
<td>'single girl'</td>
<td>'rainbow'</td>
<td>'woman'</td>
<td>'baby girl'</td>
<td>'baby girl'</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>ku-walak</td>
<td>kun-po</td>
<td>kun-warte</td>
<td>waruk</td>
<td>ngana-palama</td>
<td>kun-kang</td>
</tr>
<tr>
<td>Gender</td>
<td>neuter-small</td>
<td>neuter-water</td>
<td>neuter-stone</td>
<td>dog</td>
<td>neuter-tree</td>
<td>neuter-path</td>
</tr>
<tr>
<td>Gender</td>
<td>'stone'</td>
<td>'water'</td>
<td>'stone'</td>
<td>'dog'</td>
<td>'tree'</td>
<td>'road'</td>
</tr>
</tbody>
</table>
None of the languages under study prefix every noun with a morpheme denoting gender. The six shown in the above paradigm, Gunbalang, Gunwinggu, Djepmi, Djawan, Gunaviji and Mengerei, have at least a gender morpheme for masculine and feminine; Gunaviji and Mengerei also have a morpheme occurring on neuter nouns (that is, non-masculine/non-feminine) while Djawan has no morpheme occurring prefixed to its neuter nouns; and Gunbalang, Gunwinggu and Djepmi have two neuter classes designated by different morphemes. Dangbon, De?ynekmi and Maung affix to nouns occurring in isolation a morpheme showing possession and which is normally deleted when the noun occurs in the context of a phrase or clause.

Citation Paradigm: Concord with Adjectives

<table>
<thead>
<tr>
<th>Gunbalang</th>
<th>Gunwinggu</th>
</tr>
</thead>
<tbody>
<tr>
<td>ni-nta</td>
<td>ni-nta</td>
</tr>
<tr>
<td>piniyn</td>
<td>piniyn</td>
</tr>
<tr>
<td>na-kukarlyung</td>
<td>na-kukarlyung</td>
</tr>
<tr>
<td>masc-this man</td>
<td>masc-this man</td>
</tr>
<tr>
<td>masc-tall</td>
<td>masc-tall</td>
</tr>
<tr>
<td>na-ka</td>
<td>na-ka</td>
</tr>
<tr>
<td>na-mak</td>
<td>na-mak</td>
</tr>
<tr>
<td>piniyn</td>
<td>piniyn</td>
</tr>
<tr>
<td>masc-this masc-good man</td>
<td></td>
</tr>
<tr>
<td>ngal-walak</td>
<td>ngal-walak</td>
</tr>
<tr>
<td>ki-ngana</td>
<td>ki-ngana</td>
</tr>
<tr>
<td>fem-this fem-babe fem-big</td>
<td></td>
</tr>
<tr>
<td>fem-this fem-good woman</td>
<td></td>
</tr>
<tr>
<td>ma-ka</td>
<td>ma-ka</td>
</tr>
<tr>
<td>man-mak</td>
<td>man-mak</td>
</tr>
<tr>
<td>man-me</td>
<td>man-me</td>
</tr>
<tr>
<td>neu-this neu-knife neu-long</td>
<td></td>
</tr>
<tr>
<td>neu-this neu-good neu-food</td>
<td></td>
</tr>
<tr>
<td>ngo nto rigak</td>
<td>ngo nto rigak</td>
</tr>
<tr>
<td>kun-mak</td>
<td>kun-mak</td>
</tr>
<tr>
<td>neu-this tongue</td>
<td>neu-this tongue</td>
</tr>
<tr>
<td>neu-good</td>
<td>neu-good</td>
</tr>
<tr>
<td>kun-ka</td>
<td>kun-ka</td>
</tr>
<tr>
<td>kun-mak</td>
<td>kun-mak</td>
</tr>
<tr>
<td>kun-kayn</td>
<td>kun-kayn</td>
</tr>
<tr>
<td>neu-this neu-good neu-meat</td>
<td></td>
</tr>
</tbody>
</table>
In Gunbalang, Gunwinggu and Maung the adjective prefixes on demonstratives and descriptives coincide.

<table>
<thead>
<tr>
<th>Djepmi</th>
<th>Djawan</th>
</tr>
</thead>
<tbody>
<tr>
<td>napene taluk ngal-kimuk</td>
<td>na-wular mungkuy na-pentak</td>
</tr>
<tr>
<td>this woman fem-big</td>
<td>masc-this man masc-large</td>
</tr>
<tr>
<td>napene piniy na-kimuk</td>
<td>ngal-wula ngal-muka ngal-pentak</td>
</tr>
<tr>
<td>this man masc-big</td>
<td>fem-this fem-woman fem-large</td>
</tr>
<tr>
<td>antene kunkulk-mikin</td>
<td>nawular joyn pentak</td>
</tr>
<tr>
<td>this earth-round</td>
<td>this earth large</td>
</tr>
<tr>
<td>napene ngan-kole-kimuk</td>
<td></td>
</tr>
<tr>
<td>this neu-spear-big</td>
<td></td>
</tr>
</tbody>
</table>

| Gunaviji                      | Mengerei                      |
| ka-pula 'old man'             | nimukarr ngan-kurnukuk        |
| masc-old                      | baby new                      |
| yna-pula 'old woman'          | wikulp manma-kurluwuk         |
| fem-old                       | spear new                     |
| ma-pula 'blunt knife'         |                                |
| neu-blunt                     |                                |

| Maung                         |                               |
| nu-ka 1-lijap marryun         |                               |
| this masc-small boy           |                               |
| ju-ka niyna-lijap waraynu     |                               |
| this fem-small girl           |                               |
| mu-ka ma-lijap walk           |                               |
| this neu-small stick          |                               |
| tu-ka awa-lijap kantijawa     |                               |
| this neu-small damper         |                               |
| ngunta una-lijap upaj         |                               |
| this neu-small puddle         |                               |

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with the noun classes they modify. In Djepmi, there are only two demonstrative classes to the four noun classes; and the descriptive adjectives are different in that the masculine and feminine are shown by prefixes but the two neuter classes are suffixed to the noun modified. Djawan likewise has two demonstrative classes and three descriptive. Gunaviji does not have concordance between demonstratives and other adjectives or noun classes, but has three classes of descriptive adjective prefixes coinciding with the three classes of noun prefixes. Only the two examples shown were found in Mengerei which would point to concord between adjectives and noun classes but cannot be filled out until there is more evidence.

Various of the languages have other affixes than gender occurring with the nouns. Gunwinggu has a locative prefix, and several suffixes designating 'accompaniment, one who makes, pertaining to a thing'. In Dangbon and De'ynekmi, Gunaviji and Djawan, there are locative suffixes designating the noun as the place of an action. Dangbon, unlike the other languages, has number suffixed to nouns. Dangbon and Gunaviji have
a few instances of affixes showing the status of the noun in relation to the verb, i.e. actor, goal, instrument.

4.2.2. **Internal Structure.**

Just as in the structure of the verbs, all the languages show the same pattern of internal structure in the noun stems: simple, compound and reduplicative. The compound forms are the most interesting, for in them one sees the consistent pattern of thought mentioned by Curr and Capell.

<table>
<thead>
<tr>
<th></th>
<th>'vein'</th>
<th>'tendon'</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gunbalang</td>
<td>manyon</td>
<td>manyon</td>
</tr>
<tr>
<td>Gunwinggu</td>
<td>kunyil</td>
<td>kunmatyil</td>
</tr>
<tr>
<td>Djepmi</td>
<td>kunyil</td>
<td>kunmatyil</td>
</tr>
<tr>
<td>Dangbon</td>
<td>yulno</td>
<td>patyulno</td>
</tr>
<tr>
<td>Deˈynekmi</td>
<td>yilno</td>
<td>matyilno</td>
</tr>
<tr>
<td>Djawan</td>
<td>nganyil</td>
<td>nganmatyil</td>
</tr>
<tr>
<td>Gunaviji</td>
<td>partiwangana</td>
<td>partiwangana</td>
</tr>
<tr>
<td>Mengerei</td>
<td>injilp</td>
<td>injilp</td>
</tr>
<tr>
<td>Maung</td>
<td>wirtpirt</td>
<td>wirtpirt</td>
</tr>
</tbody>
</table>

4.2.3. **Summary.**

The nouns are compared in (1) class structure and (2) internal structure. Deˈynekmi, Dangbon and
Maung do not have gender affixes which overtly classify the nouns, but suffix a possessive morpheme to nouns occurring in isolation. Of the remaining six languages, (1) Gunbalang, Gunwinggu and Djepmi have a masculine, feminine and two neuter morphemes which identify four classes of nouns; (2) Gunaviji and Mengerei also have a masculine and feminine morpheme but only one neuter, thus defining three classes; and (3) Djawan has only a masculine and feminine morpheme, nouns of the neuter class occurring without an affix.

In all of these languages there are nouns which are members of the classes designated by gender affixes which do not themselves occur with the affix. These nouns are classified by their occurrence with the adjective classes which are in concord with the noun classes. (1) In Gunbalang, Gunwinggu and Maung the adjective prefix on demonstratives and descriptives coincides with the noun classes they modify. (2) Djepmi has two demonstrative adjective classes to its four noun classes and three descriptive adjective classes, two with masculine and feminine prefixes and one which occurs bound as a suffix to the noun modified.
(3) Djawan, likewise, has two demonstrative and three descriptive adjective classes. (4) Gunaviji does not have demonstrative and descriptive adjectives occurring in concord with each other or with nouns, but does have three prefixes to descriptive adjectives which occur in isolation. (5) Mengerei shows at least two prefixes to adjectives corresponding to the noun classes.

Gunbalang, Djepmi, Mengerei and Maung have no other noun affixes, but the remaining languages have several which identify the noun in its relation to the verb, i.e. location, agent, goal.

The internal structure of the nouns in all the languages shows the same pattern just as the internal structure of the verb does.

4.3. The Adjective.

Most of the material on the adjective was cited under the noun concordance classes above. Dangbon is the only one of the languages which does not have a system of concord between noun and adjective classes. Most of the adjectives in Mengerei and Gunaviji appear to occur without affixes which coincide with noun classes, but each language has a few, as shown, which do.
The adjectives in Dangbon may be incorporated in the noun and be suffixed as a noun: pal?no 'road' + karte 'old' = pal?karteno 'old road'.

The adverbs in all the languages act as the Gunbalang adverbs and occur as free forms.

4.4. The Pronoun.

The pronoun bound forms occurring with the verbs have already been discussed. All of the languages have pronoun free forms which show first, second and third persons in singular, dual and plural number. Most of the languages show other aspects as well, i.e. possession, benefaction, accompaniment.

4.4.1.

<table>
<thead>
<tr>
<th>Gunbalang</th>
<th>Gunwinggu</th>
<th>Djepmi</th>
<th>Dangbon</th>
<th>De'?ynekmi</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>ngaye</td>
<td>ngaye</td>
<td>ngey</td>
<td>ngaye</td>
</tr>
<tr>
<td>you</td>
<td>nguta</td>
<td>nguta</td>
<td>yning</td>
<td>nguta</td>
</tr>
<tr>
<td>he</td>
<td>napuk</td>
<td>nungka</td>
<td>yiping</td>
<td>nungka</td>
</tr>
<tr>
<td>she</td>
<td>ngalpuk</td>
<td>ngaleng</td>
<td>yipil</td>
<td>ngaleng</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Djawan</th>
<th>Gunaviji</th>
<th>Mengerei</th>
<th>Maung</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>ngarrk</td>
<td>ngayapa</td>
<td>ngap</td>
</tr>
<tr>
<td>you</td>
<td>ngiyn</td>
<td>yniynjapa</td>
<td>nuw</td>
</tr>
<tr>
<td>he</td>
<td>ngayu</td>
<td>nganapa</td>
<td>nuk</td>
</tr>
<tr>
<td>she</td>
<td>ngayu</td>
<td>ngayapa</td>
<td>ngaj</td>
</tr>
</tbody>
</table>
Several of the languages include a number suffix when designating dual or trial, others juxtapose the singular pronouns which make up the number referred to.

<table>
<thead>
<tr>
<th>Gunbalang</th>
<th>Gunwinggu</th>
<th>Dangbon</th>
</tr>
</thead>
<tbody>
<tr>
<td>we 2</td>
<td>nguta ngaye</td>
<td>ngat ngani-pokent</td>
</tr>
<tr>
<td>you 2</td>
<td>nguta napuk</td>
<td>nguta ngune-pokent</td>
</tr>
<tr>
<td>they 2</td>
<td>penengka kapurrk</td>
<td>peta pini-pokent</td>
</tr>
<tr>
<td>we 3+</td>
<td>ngatpe</td>
<td>ngat rok</td>
</tr>
<tr>
<td>you 3+</td>
<td>nukutpe</td>
<td>nguta rok</td>
</tr>
<tr>
<td>they 3+</td>
<td>petpe</td>
<td>peta rok</td>
</tr>
</tbody>
</table>

In addition to the forms shown here for Dangbon, Capell includes a first person exclusive form in dual and plural: we 2 exclusive nji:r, we 3 exclusive nji:l.6

<table>
<thead>
<tr>
<th>Djawan</th>
<th>Gunaviji</th>
<th>Mengerei</th>
<th>Maung</th>
</tr>
</thead>
<tbody>
<tr>
<td>we 2</td>
<td>wiynarrk</td>
<td>ngarrapa</td>
<td>ngarpumun</td>
</tr>
<tr>
<td>you 2</td>
<td>nikan</td>
<td>ngartikepa</td>
<td>yirpumun</td>
</tr>
<tr>
<td>they 2</td>
<td>jatkorrang</td>
<td>pateyapa</td>
<td>murpumun</td>
</tr>
<tr>
<td></td>
<td>two</td>
<td></td>
<td></td>
</tr>
<tr>
<td>we 3+</td>
<td>ynarrang</td>
<td>ngomapa</td>
<td>ngartax</td>
</tr>
<tr>
<td>you 3+</td>
<td>ynamalngun</td>
<td>nganurapa</td>
<td>nungunu</td>
</tr>
<tr>
<td>they 3+</td>
<td>--</td>
<td>--</td>
<td>munumun</td>
</tr>
</tbody>
</table>
4.4.2. Possession and benefaction are often shown in the same pronoun, but Gunbalang has an affix designating each aspect.

<table>
<thead>
<tr>
<th></th>
<th>Gunbalang</th>
<th>Gunwinggu</th>
<th>Dangbon</th>
<th>Djawan</th>
</tr>
</thead>
<tbody>
<tr>
<td>my</td>
<td>ki-naypu</td>
<td>ngatuk</td>
<td>ngekan</td>
<td>ngakulung</td>
</tr>
<tr>
<td>your 1</td>
<td>ki-nungku</td>
<td>ke</td>
<td>yningkan</td>
<td>ngiynkulung</td>
</tr>
<tr>
<td>his</td>
<td>ki-nungu</td>
<td>nuye</td>
<td>yipingkan</td>
<td>ngayilung</td>
</tr>
<tr>
<td>hers</td>
<td>ki-naju</td>
<td>ngarre</td>
<td>yipilkan</td>
<td>ngayilung</td>
</tr>
<tr>
<td>our 2</td>
<td>ki-narrku</td>
<td>karrewoneng</td>
<td>ynelkan</td>
<td>ynarrangkulung</td>
</tr>
<tr>
<td>your 2</td>
<td>ki-nungunungka</td>
<td>ngurrewoneng</td>
<td>norrkan</td>
<td>ynrarrkulung</td>
</tr>
<tr>
<td>their 2</td>
<td>ki-punungka</td>
<td>perrewoneng</td>
<td>purrangu</td>
<td>purratang</td>
</tr>
<tr>
<td>our 3+</td>
<td>ki-narrkununu</td>
<td>katperre</td>
<td>ngorrkan</td>
<td>ynrarrangkulung</td>
</tr>
<tr>
<td>your 3+</td>
<td>ki-nukutpe</td>
<td>ngutperre</td>
<td>nolkolng</td>
<td>ynrurrangkulung</td>
</tr>
<tr>
<td>their 3+</td>
<td>ki-putpe</td>
<td>petperre</td>
<td>purleng</td>
<td>purratang</td>
</tr>
</tbody>
</table>

Djepmi and De'ynnekmi have the same forms as Gunwinggu throughout the pronoun system. Gunaviji uses the one system for all aspects of pronoun usage. Mengerei has an affix ine which may be prefixed or suffixed to the pronoun to designate possession. Maung uses either the one system of pronouns preceded by the article ja or a descriptive system again in concord with the noun class which it modifies (I do not have data on this system, merely indications of it: nuwurri 'your (2) son', nuwurro 'your (2) thing'.)

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Gunbalang prefixes the above set of pronouns with ki- for possession, as shown, and with pi- for benefaction.

Gunwinggu forms a reflexive pronoun by suffixing the morpheme -man to the first set of pronouns above; also the noun suffixes occur with this set.

4.4.3. Summary.

These languages use the free form pronouns sparingly since the verb includes in its structure the person and number of its **dramatis personae**. All of the languages have pronouns which occur as subject and object in clauses, and most of the pronouns show not only person but number. Gunwinggu is an exception, for the plural form of its pronoun is shown by coupling the adjective rok 'all' to the dual pronoun. In Gunbalang the dual number of the pronoun is shown by juxtaposition of the persons involved, i.e. nguta ngaye 'you and I, we 2'.

There are several suffixes used with the Gunwinggu pronouns: -man 'reflexive', and the suffixes used with the nouns, i.e. -toreng 'accompany'.
Djepmi and De'ynekmi have the same system as Gunwinggu.

Only four of the languages, Gunbalang, Gunwinggu, Dangbon and Djawan have a separate system of pronouns to designate possession or benefaction. Gunbalang has a bound form which occurs with ki- 'possession' or pi- 'benefaction'.

Mengerei designates possession by the affix -ine which may be prefixed or suffixed to the pronoun. Maung seems to use the one set of pronouns, preceding the free form with an article ja when expressing possession. Gunaviji also uses the one set of pronouns, juxtaposing the pronoun and the thing possessed when expressing possession.

4.5. Other Word Level Constructions.

The other word level constructions, such as locatives, temporals, negatives and relators are of the same form in all the languages; and function much the same, as has been discussed under the phrase and clause. One word class which has some points of interest in comparison among the languages is the
connectors. There is a noticeable lack in Aboriginal languages of the variety of connectors found in English. Most often there are only a few forms which cover a wide range of meaning, and this bears out in these languages. Mengerei is the richest: arra 'so', aja 'but', la 'and'; Maung coming next with akuju 'also, then', la 'and, so'; Gunwinggu also, kaluk 'therefore', ja 'and'. Since these forms are used mostly in discourse or long conversation, they are not readily available to a survey and comparison such as this.
NOTES

1. Much of my material in Gunwinggu was checked against the description of Gunwinggu in:

   L.F. Oates, A Tentative Description of the Gunwinggu Language, Oceania Linguistic Monographs No.10, University of Sydney (1964) pp.120.

2. Capell has a description of the Dangbon (Dalabon) morphology as well as other grammatical features in:


3. A comprehensive description of Maung is being prepared by A. Capell and Heather Hinch for publication soon.


PART IV:

CONCLUSION
1. SOCIAL RELATIONSHIPS

Baldwin Spencer noted the presence of moieties in
the social organization of the tribes in the area under
study and grouped Djauan, Yungman and Nullakan together
as sharing a four-subclass system. Later studies in
the same area by Elkin and the Berndt's showed an
affiliation in social organization between Djawan
(Spencer's Djauan) and Ngalakan (Nullakan), and between
Djawan and Gunwinggu. Warner's work on kinship
morphology had also grouped these languages together,
generally. Maddock has recently studied the social
organization of the complex of language groups at
Bamyili, Northern Territory, and separates the Gunwinggu
and Ngalbon (the Nullakan and Ngalakan above) on the
specifics of social organization such as subsection
marriage schemes. The relationship between these
groups could be interpreted from this evidence as being
generally close but specifically distinct. A study by
Berndt of the ceremonial exchange ritual of the
Gunwinggu further underlines this social relationship,
for the Gunwinggu share the wurbu ceremony with the
Djauan (among others mentioned later) and the njalaidj
ceremony with the Jangman (Spencer's Yungman).
The relationship between the Gunwinggu and the language groups along the Alligator and Liverpool Rivers is mentioned also in the study of the social organization of Arnhem Land by Elkin and the Berndt's. The affiliation of the Gundjeibmi (the Djepmi of this present paper) a language along the East Alligator, with the Gunwinggu is further brought out by their share in the wurbu ceremony. The Dangbun (Dangbon in this paper) social affiliation is also shown in the sharing of the njalaidj ceremony with the Gunwinggu and Jangman groups. Along the Liverpool River, the Gunbalang, Gunavidji (Gunaviji in this paper) and Nagara share the midjan ceremony with the Gunwinggu, and are mentioned by Warner as using the same kinship designations.

Others who share a ceremonial trading ritual with the Gunwinggu in the wurbu are the Iwaidja and Margu, along the northern coast of Arnhem Land. Maung and Iwaidja (Jiwadja) not only share kinship morphology with Gunwinggu but other features of social organization and ritual.

There exists, then, a general relationship between Gunwinggu and Djawan, Ngalakan, Jangman, Djepmi,
Dangbon, Gunbalang, Gunaviji, Nagara, Jiwadja, Margu and Maung. The Ngalakan group is separated from Gunwinggu on a detailed study of their respective social systems.

2. TYPOLOGICAL RELATIONSHIPS

A list of cognates in Schmidt's work on the languages of Australia gives evidence for his including Amurag, Iwaja (Jiwadja) and Maung in one group, with Margu and its dialect at Popham Bay related to them. Capell follows up this relationship in his typological studies and shows that Maung has a complex grammatical structure not shared by Jiwadja; therefore, the two are not dialects but related languages. Gunwinggu and Maung are typologically similar.

Much the same relationship exists between Gunwinggu and Buan, for although there is a vocabulary affinity between the two, there is a marked structural diversity. Two other languages grouped with Gunwinggu, although non-classifying and therefore structurally divergent, are Ngalakan and Dangbon. Buan and Ngalakan share the feature of noun suffixes which designate the noun as subject or object of the verb.
Gunbalang has a general structural similarity to Gunwinggu and is therefore more closely related to it than is Ngalakan.\(^{12}\)

3. RELATIONSHIPS BASED ON COGNATE DENSITIES

The most recent and comprehensive study of the relationships of the languages of Australia is based on a comparison of cognate densities. The percentages of cognate density which form the criteria for the classification of the languages are lower than those generally accepted in non-Australian language classifications, thus compensating for the widespread structural similarity which seems to contradict the diversity in vocabularies.\(^ {13}\) The percentages used are:

1. phylic families: cognate density less than 15%,
2. groups of the same family share 16% to 25% cognate density,
3. subgroups of the same group: 26% to 50%,
4. languages or family-like languages of same subgroup: 51% to 70%,
5. dialects of the same language: 71% and above.\(^ {14}\)
On these criteria, O'Grady and Voegelin's have classified the languages mentioned previously as follows:15

II. Iwaidjan Family
   A. Iwaidjic Group
      1. Wargbi Subgroup: Iwaidji
      2. Arargbi Subgroup: Maung
   B. Amaragic Group
   C. Margie Group

III. Kakaduan Family (only member: Kakadu)

IV. Mangerian Family
   A. Mangeric Group (Mengerei in this paper)
   B. Uningangkic Group

V. Gunavidjian Family (only member: Gunaviji)

VI. Nagaran Family (only member: Nagara)

VII. Gunwingguan Family
   A. Gunwinggic Group
      1. Binin Subgroup
         a. Gunwinggu language
         b. Dangbon language
         c. Muralidban language
      2. Girdimarg Subgroup: Gunbalang
   B. Buanic Group
1. Bi Subgroup
   a. Buon language
   b. Dalabon language

2. Bigur Subgroup: Ngalakan
   C. Ngandic Group (only member: Ngandi)
   D. Rainbarngic Group (only member: Rembarunga)
   E. Djauanic Group (only member: Djauan)
   F. Yangmanic Group
      1. Nolgin Subgroup: Jungman
      2. Yibiwan Subgroup: Wardaman

4. RELATIONSHIPS BASED ON DESCRIPTIVE COMPARISON

4.1. Summary of Evidence

The descriptive comparison of the Gunwingguan languages covered a comparison of the (1) structure of the syntagmemes of the languages, and of the (2) criteria for the separation of the syntagmemes. This comparison was to determine whether the languages made the same distinctions between (1) levels of the grammatical hierarchy, i.e. word, phrase and clause; (2) syntagmemes on each level, i.e. verb, noun, adjective; and (3) functions within the syntagmemes; i.e. in the verb, between person, tense, aspect. The results of these comparisons follow.
All of the languages in the comparative study make the same distinctions between grammatical levels: the clause, phrase and word. There is, however, a divergence of structure between the syntagmemes on each level and between the functions within the syntagmemes. These differences will be set out in the following charts.

4.1.1. Clause Level Constructions

<table>
<thead>
<tr>
<th>Verbal</th>
<th>Non-Verbal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Int</td>
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<tr>
<td>-----------------</td>
<td>-----</td>
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<tr>
<td>De</td>
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<td>Imp</td>
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<td>De</td>
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<tr>
<td>Imp</td>
<td></td>
</tr>
</tbody>
</table>

Neither Djawan nor Gunaviji distinguishes between transitive and ditransitive clauses. Otherwise, the
languages show the same significantly distinct structures on the clause level of the grammatical hierarchy.

4.1.2. **Phrase Level Constructions**

<table>
<thead>
<tr>
<th></th>
<th>Noun</th>
<th>Pronoun</th>
<th>Preposition</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$N_d$</td>
<td>$N_p$</td>
<td>$Pr_d$</td>
</tr>
<tr>
<td>Gunbalang</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Gunwinggu</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Djepmi</td>
<td>x</td>
<td>x</td>
<td>o</td>
</tr>
<tr>
<td>Dangbon</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>De? ynekmi</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Djawan</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Gunaviji</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Mengerei</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Maung</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>

All of the languages distinguish between descriptive and personalised noun phrases, and have the same structure. There is no evidence of pronoun phrases in Djepmi, but all of the other languages distinguish between descriptive and conjunction pronoun phrases. Gunwinggu, Dangbon, Mengerei and Maung have a varied structure in the pronoun conjunction phrase, for they
use a connector word whereas the remaining languages show conjunction by juxtaposition. Other than Djepmi and Gunaviji, each language has a prepositional phrase structure distinct from the noun phrase. Only Gunbalang, Gunwinggu and Maung manifest the clause level locative function with a locative prepositional phrase, the other languages do so with a word level construction.

The separation of phrase and clause level constructions is evident in all of the languages, and is based on the same features: (1) tagmemic functions are different, i.e. clause level functions are predicate, subject, object whereas phrase level functions are descriptive, relator-axis; (2) a construction may manifest a tagmeme on its same grammatical level (e.g. an embedded structure) or any higher level, but not manifest a tagmeme on a lower grammatical level; therefore, a phrase may manifest a tagmeme on the clause level but not vice versa.
4.1.3. Word Level Constructions

<table>
<thead>
<tr>
<th></th>
<th>Verb</th>
<th>Noun</th>
<th>Pronoun</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>aux</td>
<td>neg</td>
<td>int</td>
</tr>
<tr>
<td>Gunbalang</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Gunwinggu</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Djepmi</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Dangbon</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>De?ynekmi</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Djawan</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Gunaviji</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Mengerei</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Maung</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>

Other than Gunaviji and Maung, all of the languages make the same distinction between word and phrase level in the verb, noun and pronoun constructions. The exceptions are Gunaviji and Maung which have auxiliary structures in the verb constructions. There are too few examples of these auxiliary structures in my language data to attempt an analysis.

Within the verb constructions, Djawan, Gunaviji and Maung do not differentiate between negative and positive
verb syntagmemes or between transitive and ditransitive. Mengerei and Maung make the distinction between transitive and ditransitive structures on the clause level rather than on the word level.

Gunaviji has a suffix -ya to verbs which in the other languages are reflexive, but this suffix in Gunaviji occurs in many different instances so is not designated as reflexive.

In the noun syntagmeme, neither Dangbon, De'ynekmi nor Maung shows any form of noun gender but rather suffix a possessive morpheme to nouns occurring in isolation. Maung does, however, distinguish noun classes and this distinction appears covertly in the concord between nouns and adjectives. Although Gunaviji has several noun gender classes, there is no concord shown between nouns and adjectives. Dangbon and De'ynekmi have neither adjective nor noun classes to be shown in concord between the two.

All of the languages have free form pronouns which manifest functions on the phrase and higher grammatical levels. However, Gunaviji, Mengerei and Maung do not distinguish between pronoun syntagmemes manifesting the descriptive function of the
personalised noun phrase and those manifesting the head slot of the pronoun conjunction phrase. In the other languages, this distinction is made and there are two pronoun classes.

4.1.4. The Verb

<table>
<thead>
<tr>
<th>person</th>
<th>nuc</th>
<th>tense</th>
<th>mode</th>
<th>aspect</th>
</tr>
</thead>
<tbody>
<tr>
<td>int/tr</td>
<td>pa/pres</td>
<td>pre</td>
<td>suf</td>
<td></td>
</tr>
<tr>
<td>Gunbalang</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Gunwinggu</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Djepmi</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Dangbon</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>De?ynekmi</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Djawan</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<tr>
<td>Gunaviji</td>
<td>x</td>
<td>x</td>
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<td>x</td>
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<tr>
<td>Mengerei</td>
<td>x</td>
<td>x</td>
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<td>x</td>
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<tr>
<td>Maung</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>

There are three aspects of the verb syntagmeme which are shared by all of the languages: (1) the person prefixes to the verb are manifested by forms which agree with transitive function because they show subject and object, and forms which show the subject of an intransitive action as well; (2) the nucleus of the
verb has a simple, compound or reduplicative internal structure; and (3) an aspect of the action of the verb is shown in a suffix.

Most of the languages, excepting Mengerei and Maung, have a suffix designating tense, while these two languages have a prefix. Often the tense prefix becomes a portmanteau morpheme with the person prefix.

Six of the languages, Gunbalang, Gunwinggu, Djepmi, De'ynmekmi, Mengerei and Maung, as well as distinguishing between the person morphemes used with transitive and intransitive verbs, distinguish between the person morphemes used with past and present tenses.

A mode function in the verb syntagmeme occurs only in Gunwinggu, Dangbon and Mengerei. Otherwise, this function is manifested on the clause level by adverbs, locatives or other words.

4.2. Degree of Relationship

Those languages which differ structurally from Gunbalang are charted below with the points marked on which they differ.
<table>
<thead>
<tr>
<th>Clause</th>
<th>Phrase</th>
<th>Word</th>
<th>Verb</th>
<th>Noun</th>
<th>Pr</th>
<th>aux</th>
<th>neg</th>
<th>pref</th>
<th>pers</th>
<th>t</th>
<th>cu</th>
<th>pm</th>
<th>j</th>
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<tbody>
<tr>
<td>di</td>
<td>PP</td>
<td>cp</td>
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<td>i</td>
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</tr>
</tbody>
</table>

Dangbon, Dezyneki, Djawan, Gunavi, Mengerei, Maung, Gunwinggu
A tabulation of the structural differences then would give Gunaviji 10, Maung 6, Dangbon, Djawan and Mengerei 5 each, De'ynekmi 3 and Gunwinggu 1.

To evaluate the relative significance of the structural differences as a measure of the degree of relationship between the languages, three points must be kept in mind: (1) the bulk of structural features which are shared by the languages; (2) the grammatical levels on which the structural differences occur; and (3) the degree of relationship between the languages shown by the comparison of other features such as cognate density and typological features.

That the languages are generally related structurally is evident from the data summarised here. They are all predicate-centered languages, incorporating in the verb a potential of most of the clause level functions, i.e. subject, object, time, manner or aspect. Typological evidence shows them to all be prefixing languages, and all but two, Dangbon and De'ynekmi, to have some type of noun classification.

Gunaviji shows the greatest dissimilarity, not only in the number of structural differences but also in the range of the differences through all grammatical levels:
clause, phrase and word. Djawan also, though with fewer differences numerically, touches all the grammatical levels. Mengerei and Maung differ from Gunwinggu mostly on the word level, and then mostly in the structure of the verb. Dangbon and De?ynekmi have only one difference in verb structure from Gunwinggu, the other main difference being their lack of noun classification and their use of a locative morpheme rather than a locative phrase. Gunwinggu differs from Gunbalang in verb structure, for Gunbalang has no mode function within its verb syntagmeme.

The two languages most closely related to Gunwinggu are Djepmi and De?ynekmi, with Gunbalang and Dangbon next and Djawan the least close of this group. Gunaviji, Mengerei and Maung are little related to each other, and to Gunwinggu. Following the format of O'Grady and Voegelin's genetic classification of these languages, the above structural relationships would read thus:

I. Gunwingguan Family
   A. Gunwinggic Group
      1. Gunwinggu language
a. Gunwinggu dialect
b. De?ynekmi dialect
c. Djepmi dialect

2. Gunbalang language
3. Dangbon language

B. Djawanic Group

II. Gunavijian Family

III. Mengereian Family

IV. Maung Family

For easy comparison, the pertinent points of the genetic classification are reproduced from page 139 below (O'Grady's order has been permuted to correspond to the above table):

I. Gunwingguan Family

A. Gunwinggic Group

1. Binin Subgroup
   a. Gunwinggu language
   b. Dangbon language
   c. Muralidban language

2. Girdimarg Subgroup: Gunbalang

B. Buanic Group

1. Bi Subgroup
   a. Buon language
   b. Dalabon language
2. Bigur Subgroup: Ngalakan

C. Djauanic Group: Djauan

II. Gunavidjian Family: Gunavidji

III. Mangerian Family

A. Mangeric Group: Mangerei (Mengerei)

B. Uningangkic Group

IV. Iwaidjan Family

A. Iwaidjic Group

1. Wargbi Subgroup: Iwaidji

2. Arargbi Subgroup: Maung

B. Amaragic Group

C. Margie Group

The divergence of the outline of grammatical structural relationships between the languages, from the genetic outline is: (1) in the Gunwinggu Family, there are three languages, Gunwinggu, Dangbon and Gunbalang; rather than the genetic outline stating Gunwinggu and Dangbon languages of the Gunwinggic Group, Binin Subgroup and Gunbalang a separate language of the Girdimarg Subgroup. (2) Dalabon is a dialect of Dangbon (both names used by speakers of the language indiscriminately), rather than Dalabon being a language of a separate Group of the Gunwingguan Family. (3) Data on Muralidban was
collected but not included in the paper because it was so similar to Gunwinggu and has a very close relationship as a dialect, rather than as a separate language as shown in the genetic outline.

The implication of these differences is that a comparison of the grammatical structure of languages may show a closer relationship than does a comparison based on cognate density calculations. This does not mean that typological comparisons should replace those based on cognate counts, for they are synchronic and diachronic respectively and thus not of the same value. However, it does imply that further investigation of this area of typological comparison should be made, and that further investigation of the relationships illuminated by such a comparison should be made.
NOTES


12. ibid.


15. ibid. p.30.

16. The classification here includes only the languages in this paper so differs in some points from the more extensive classification of O'Grady and Voegelin's. Also, there are several local dialects which were met in the fieldwork but are not concerned in the study. Maiali is a dialect of Gunwinggu found at Bamyili, near Katherine, Northern Territory; Gumadir is a dialect from the swamp area around Gumadir Creek near Oenpelli, Northern Territory.
BIBLIOGRAPHY
BIBLIOGRAPHY

The first section of the bibliography contains the more pertinent publications and MS which were consulted with particular reference to the preparation of the thesis. In the second part is a representative selection of other publications and MS read during the course of research and analysis.

Following is a list of abbreviations used in the bibliographical data:

AIAS     Australian Institute of Aboriginal Studies
ANZAAS   Australian and New Zealand Association of Applied Science
IJAL     International Journal of American Linguistics
LCCP     Linguistic Circle of Canberra Publications
SIL      Summer Institute of Linguistics

PART I.


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APPENDIXES
APPENDIX I

SKETCH OF GUNBALANG PHONEMICS

An exhaustive analysis of the phonemic hierarchy of the languages in this study was not attempted, but rather, a preliminary analysis which would suffice as a basis for an orthography to facilitate the grammatical analysis. Following is a guide to the main features of the Gunbalang phonemic system, concluding with a resume of the more apparent differences in the phonemics of the remaining languages.

CONSONANT PHONEMES

<table>
<thead>
<tr>
<th>Manner of Articulation</th>
<th>Point of Articulation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>bilval</td>
</tr>
<tr>
<td></td>
<td>palatal</td>
</tr>
</tbody>
</table>

- stop
  - (voiceless) p tj t ʈ k ?
- nasal m nj n ɳ ŋ
- lateral l
- resonant r
- vibrant r
- semi-vowel w y

There is not a voiced series of stops in these languages, but a voiceless stop in the environment of vowels or their combination with voiced consonants will be influenced
towards voicing, e.g. [tuďuk] 'dog' /tuťuk/. A fairly common feature of these languages is the alveolar lateral /l/ preceding /k/ becoming [l], e.g. [kunbaĩk] 'country' /kunpalk/.

VOWEL PHONEMES

<table>
<thead>
<tr>
<th>Front</th>
<th>Central</th>
<th>Back</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>i</td>
<td>u</td>
</tr>
<tr>
<td>Mid</td>
<td>e</td>
<td>o</td>
</tr>
<tr>
<td>Low</td>
<td></td>
<td>a</td>
</tr>
</tbody>
</table>

These vowels occur in stressed syllables, their "close" counterparts occurring in non-stressed syllables. The non-stressed allophone of /a/ is [ʌ]. Vowels preceding alveopalatal consonants or semi-vowels, glide to a high-front position, e.g. [ŋaʰnjga] 'I am going' /ŋanjka/.

ORTHOGRAPHY

For most of the phonemes the orthographic symbol does not differ from the phonemic symbol. Those which do differ are as follows:

<table>
<thead>
<tr>
<th>Phonemic Symbol</th>
<th>tj</th>
<th>nj</th>
<th>n</th>
<th>ř</th>
<th>Č</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orthographic Symbol</td>
<td>j</td>
<td>yn</td>
<td>ng</td>
<td>rr</td>
<td>rČ</td>
</tr>
</tbody>
</table>
SYLLABLE PATTERNS

All syllables are consonant initial, in three patterns which combine in any order to form multi-syllable words.

CV   /la/ (connector)
     /ka-puʁk/ 'two'

CVC  /ŋop/ 'all'
     /ken-tam/ 'top'

CVCC /ki-pilk-pi-yi/ 'to scratch oneself'
      /ki-ɾi-maɾk/ 'man'

STRESS AND INTONATION

Primary stress occurs on the initial syllable of each root except when compounds are formed of more than one root, then primary stress occurs on the penultimate syllable. [ka'ɾamałk] 'stone axe' where [małk] is 'digging stick'; [ŋa'kelkuyi] 'I work' where the root is [kelk] 'to work'.

The basic intonation pattern is a gradual rise culminating in a swift fall at utterance final position for statements, and a gradual rise to utterance final for most questions. There is a great variety of tempo patterns and intonation patterns which were
not analysed because of the limited scope of this paper.

NOTES ON OTHER LANGUAGES

Gunuwinggu, Djepmi, Djawan, and De?ynekmı̂ have the same phonemic system as Gunbalang. Dangbon is the same in every area except in the quality of its vowels. The vowels pattern the same but are all more central, with the closest approximation to Gunbalang vowels occurring in stressed syllables, e.g. \[^{\text{tupmi}}\] 'you bring' /tupmi/. Dangbon also has a higher occurrence of the glottal phoneme than does Gunbalang.

Mengerei and Maung have the same phonemes as Gunbalang, but have vowel initial syllables, e.g. Mengerei: /ulanjgam/ 'cave', Maung: /aɾaɾkpi/ 'man'.

Gunaviji sounds softer than the above languages because of a greater occurrence of the semi-vowels /w/ and /y/, and of /ɾ/ rather than /r/. There are three main phonemic vowels, rather than the five of the above languages, which are /a/, /o/, /i/. I have written /u/ and /e/ as well but believe further analysis would unite them with /o/ and /i/ respectively.

The phonemic system of each of the languages in this study conforms closely to the Australian Aboriginal language norm.
APPENDIX II
ADDENDA ET CORRIGENDA

p.3, line 13, living and which = living which, however,
p.5, line 10 and elsewhere, Voegelin's = Voegelins
p.7, line 1 and elsewhere, Berndt's = Berndts
    line 3, propogation = propagation
    line 5, no one has = no one else has
    line 12, becomes a problem = presents a problem
    line 16, compartative = comparative
p.9, line 4, strucuturally = structurally
    line 9, compartive = comparative
p.15, line 7, catergories = categories
p.27, line 10, AI = AL
p.29, (1) No.4 under Statement of Exponents, o:<parra->,
        <purru->, <pun->, <yon->
    (2) third line from the bottom, <jitaθ> = <jita->
p.37, last line, o:<an-> = o:<parra->
p.41, line 24, "such a form to prove" = "such a form as to prove"
p.42, middle of the page preceding the heading "Order of Occurrence" -

     Formula: aj₂ → s:<ngarra-> +nu:ajs

The adjective₂ construction is read as an obligatory

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subject tagmeme manifested by an affix from class <ngarra-> which also designates the negative subject of a verb, followed by an obligatory nuclear tagmeme manifested by an adjective stem. The adjective construction manifests the Comment tagmeme of the Item Comment clause.

p.53, last line, (Neg) +0 (+P) +Cₚ = (Neg) + SₚP (+P) +Cₚ

p.54, (1) line 25, ACC: Pᵣ = Aᵣ: Pᵣ
(2) line 20, P: vᵢₑᵗ etc. = P: v_{pos}, v_{neg}
(3) line 28, → (S) (+Neg) +P = → (S) (+Neg) +P:v_{int}

p.55, (1) line 19, → (Neg) +P = → (Neg) +P:v_{int}
  → (S) (+Neg) +P (+0) (+In) =
  → (S) (+Neg) +P:v_{tr} (+0) (+In)

(2) line 30, → (Neg) +P (+0) (+In) = → (Neg) +P:
  v_{tr} (+0) (+In)

p.57, (1) line 13, → (S) (+Neg) +P (+IO) (+0) =
  → (S) (+Neg) +P:v_{di} (+IO) (+0)
(2) line 31, → (Neg) +P (+IO) = → (Neg) +P:v_{di} (+IO)

p.58, (1) line 9, → (S) (+Neg) +P = → (S) (+Neg) +P:v_{ref}
(2) line 29, → (Neg) +P (+S) = → (Neg) +P:v_{ref}

p.60, (1) line 2, ngarra-tempulumi-rli = ngarra-tempulumi-li
p.60, (2) line 9, ngayi-parti-kiyne-rli = ngayi-parti-kiyne-li

p.61, (1) line 14, ki-pilkpiyi. The /1k/ is also written as /dlk/ elsewhere, but the former is correct.

(2) line 27, 3. 0 = 3. $S_{cp}$ 3. 0: N = 3. $S_{cp}$ : N

p.62, (1) line 20, 0 (+P) +Cp = $S_{cp}$ (+P) +Cp

(2) line 21, obligatory object = obligatory subject

(3) lines 26 and 29, 0 = $S_{cp}$

p.65, line 10, CP = Cp

p.78, line 2, these languages are structured the same = these languages are similarly structured

p.106, line 16, you-fire = you neg.-fire

p.107, para.2, A general uniting = A common

p.123, para.2, Various of the languages = Several of the languages

p.145, line 5, has a suffix -ya = has -ya suffixed