# GRAMMATICAL CLASSIFICATION IN AUSTRALIA 

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## 1. INTRODUCTION: Types of Classification - Nouns and Verbs

Australian languages as a whole are not amongst those which recognise gender or other forms of classification in nouns and dependent categories. There are, however, certain limited areas where phenomena of this kind appear, and these are indicated in Map I. They are subdivisible as follows:

1. regions in which a distinction between feminine and non-feminine is found;
2. regions in which nouns are classified into sensegroups by a method here called 'determination';
3. regions in which nouns are classified into groups marked by suffixes or prefixes, or both in combination, involving a grammatical concord within the utterance, in a manner resembling those of the Bantu languages of Africa, but less complicated.

With one exception, all these languages are found in an area north of $18^{\circ}$ south latitude, and spread over the continent from the Northern Kimberley Division to Cape York Peninsula. Marking by a dichotomy of feminine $v$. non-feminine is found occasionally south of this latitude, and a multiple class system by suffix occurs in isolation on the north coastal area of New South Wales.

The first part of this paper discusses the phenomena of the different languages and suggests ways in which these may have developed, though it still remains impossible, for lack of diachronic evidence, to assign any time scale for their establishment.


Map I: Noun Classification

## LEGEND TO MAP 1: NOUN CLASSIFICATION

KEY:

| MC | Multiple classifying, either |
| :---: | :---: |
| MC (p) | multiple classifying by prefix or |
| MC ( s ) | multiple classifying by suffix; |
| MC (sep) | multiple classifying by separate markers. |
| DC | Dual classifying, either |
| DC (p) | dual classifying by prefix |
|  | or |
| DC ( s ) | dual classifying by suffix. |
| DET | Use of determinatives. |
| MF | Distinction of masculine-feminine, either |
| MF ( n ) | distinction in noun forms |
|  | or |
| MF (p) | distinction only in third singular pronouns. |

One instance at least will appear in which the noun itself carries no marker, but is preceded by a local demonstrative which varies for class. This language is Djirbal, in north-eastern Queensland. In the heart of the most complicated area in Arnhem Land, there is a case in which a kind of 'article' occurs, which is repeated along with an adjective following a noun; here some stem variation is simultaneously possible. This happens in Mawng, in north-western Arnhem Land.

In certain instances also, the grammatical feature of possession of an object may exert influence on the form of the noun, apart from the class-marker such a noun may bear. This has been called 'prefixpossessive' concord.

Noun classification, however, is not the only type of classification found in Australian languages, although it has been so stressed that in practice it is the type most thought of when the term 'classification' as a grammatical process is thought of. There is, however, classification of verbs also. In some languages the verbal stem is conjugated by suffix or less commonly by prefix, as, for instance, in Latin and European languages as a whole. The Latin type is represented by such roots as am-o, hab-e-o, etc. But there is also a Latin type such as gratias ag-o, I thank, I give thanks. Here a noun stem is supported by a verbal stem without which it cannot be conjugated. In Australia, many languages have such double verbs. In Ngarinjin, for instance, one says a-n-ulu-n, him-I-give-pres.; but one says wula g-ama-naŋga, speech $I$-do-to-him, I speak to him. It is impossible to say simply *a-n-wula-n. In the Northern Kimberley and some areas of Arnhem Land, it seems that the decision depends on whether the verb stem begins with a vowel (when it can be conjugated as a simple verb) or a consonant, when it is conjugated as a compound verb with some kind of auxiliary. The matter is not really quite as simple as this. Different auxiliaries may change the nuance of meaning. In Ngarinjin, maRa a-n-o-ni, seeing I-him-do-past, $I$ saw him, implies a simple act of vision; but maRa a-n-ela-ni, seeing him-I-hold-past, is rather $I$ stared or gazed at him. In Ngarinjin there are eleven such auxiliaries, all of which have specified uses.

## 2. DICHOTOMY OF FEMININE v. NON-FEMININE

The languages included in this group have a system of classification very like those of the modern Romance languages, i.e. they distinguish feminine from masculine among living creatures; inanimate nouns are not marked. For this reason it is inappropriate to speak of a masculinefeminine division. Any noun that is not feminine falls into the other
class. Feminine is marked (usually by suffix) non-feminine is unmarked. Perhaps Latin may provide a rough parallel in that the basic gender system in Latin is masculine-feminine: the neuter is really a special subgroup of the masculine, agreeing with the latter in most of its endings (except a formal nominative-accusative division in the neuter), but having a separate set of case markings for feminine. The difference is that in Latin and the Romance languages, the gender is 'grammatical', i.e. largely independent of actual fact, while in the Australian languages, as in English, only female reference is marked as feminine. Pronouns under this system mark she as distinct from he and $i t$, but do not distinguish the latter two.

The area of occurrence of this type of noun classification is listed by Schmidt (1919b:ll-12) as that of the Kana languages of his South Central Group, those of his Middle and North Kuri Group, Bandjalong and Halifax Bay in North Queensland. For these he gives the following forms:

|  | Masculine |  | Feminine |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Nom. | Erg. | Nom. | Erg. |
| Diyari | nau | nulu | nani | nandru |
| Kana-type | nu: | nu:du: | nun | nundu |
| Darginjung | njuwa | nowa ( g gay ) | nunduwa | nona (ogay) |
| Awaba | njuwawa | nuwa | buwun |  |
| G adhang | njuwa |  | njunda, | uduwa |
| Bandjalong | njuli | njulaju | njan | njandu? ${ }^{\text {l }}$ |
| Yugumbir | njula |  | njulagan |  |

Schmidt's entry for 'North Halifax Bay' is masc. baiu, fem. ya:lu., but the allocation to precise languages is uncertain and these are better disregarded.

There is one occurrence of a masculine-feminine distinction that has been noted by Capell in the Roper River area, among prefixing languages: Mara has a distinction of two genders in the 3rd person singular pronoun and in the demonstratives. This distinction is found

[^0]also in Alawa, but in the latter language the adjective is involved along with the verbal subject in the concord. Alawa is therefore classed with the dual-classifying languages, while Mara belongs to the group here under consideration. Mara is not an ergative language, and the pronominal forms are only nafgaya, he and nayara, she. The two sentences this man is dead and this woman is dead appear in Mara as:

1. gariyimar ninja gabaR uma man this dead is
2. giriya ninda nabaR uma woman this dead is
as against the Alawa equivalents:
3. lilmi ni:nda waynma niri man this dead is
4. giriya anoinda anwaynma ari
woman this dead is
where a prefix an- marks the feminine in both demonstrative and adjective, with the verb differently marked for gender.

In Mara, however, a deictic nana serves to define nouns either masculine or feminine or referring to things: nana barawu, the ship (Malay prau); nan djanawa, the little girl. It is usable even with a noun that carries a built-in possessive: nana wabimar, your father a special 2nd person form.

A short form na- is very frequently prefixed to non-feminine nouns: na-bulan, the bucket; even place names such as na-Darwin and as in the sentence naggaya na-wambi-yu, he (is) the-house-at or he is in the house. There is a much rarer feminine prefix nja-, as in nja-radbur-yu wa-lindu, the camp-to he-goes; dala gunbu nja-nalwar-yu, she fell the ground-to, or nja-nugu-yu, into the water. In most cases this does not seem to be considered necessary when the noun refers to a feminine person, as in the two sentences
bandi wu:wa djawulba, head give (to) old-man
wu:wa du:la djawulba ginja, give leg (to) old-woman that
The definite appears in the last element of the following sentence but not in the first element which is clearly feminine:

$$
\begin{aligned}
& \text { giriya badada gudid gaganja na-ralga } \\
& \text { (the) woman baby will-carry (in) the-bag }
\end{aligned}
$$

there is no corresponding plural or dual, unless the normal markers of the noun (wuru- dual, and wala- plural) are to be so considered.

The same prefix na- will appear in the MC languages of Rose River and Groote Eylandt, where they can be preceded in turn by the noun class marker, e.g. Rose River: a-Ranag, a-na-Ranag, wood, tree. There is a similar difference of degree of definiteness.

## 3. GRAMMATICAL CLASSIFICATION OF NOUNS

Amongst the systems in which the classification of nouns is different from those known in European languages, several subgroups can be distinguished.

1. The languages of Cape York area of North Queensland.
2. The languages of north-eastern New South Wales.
3. The languages of Arnhem Land and the Northern Kimberley,
(a) classification by suffix,
(b) classification by prefix.

Both types may occur at once: a noun may carry prefix and suffix at the same time - sometimes but not always the same morpheme: the form is $P+R+S$, where $P=$ prefix, $R=$ root, and $S=$ suffix. Some languages have $R+S$, some have $P+R+S$, and some have $P+R$. The impression that grows up in a comparative study of these languages is that the real pattern is $P+R+S$, but that in some areas it becomes $\phi+R+S$, and in others $P+R+\phi$. In areas where one of the $\phi$ forms occurs, the $\phi$ can often be filled in adjectives or other parts of speech by the missing member of the pair, i.e. the $P+R+S$ system would seem to be original. This claim will be abundantly illustrated in subsequent pages. In the rarer cases in which possession is marked by a prefix, this prefix may, in a very few languages, supplant $P$, and occur in the concord of the noun phrase and even the verb phrase. Here, using $p=$ possession, the pattern would be $N=p+R \pm S$, and the noun phrase would appear as

$$
N P=p+R \pm S \rightarrow p+A \pm S \rightarrow
$$

Here, my strong right arm would be represented by a pattern such as $\mathrm{p}+\operatorname{arm} \pm \mathrm{S} \rightarrow \mathrm{p}+$ strong $\pm \mathrm{S} \rightarrow \mathrm{p}+$ right $\pm \mathrm{S}, \mathrm{p}$ being in each case the prefix representing $m y$.

In most of these complicated classification systems, the number of the noun is either not represented, or only in nouns referring to living human beings.

## 4. CLASSIFICATION BY DETERMINATIVES

### 4.1. Cape York Peninsula Languages

In the languages of Cape York, a type of classification is often found in which a generic noun precedes a specific, e.g. animal horse for horse. The generic noun $c$ an be used independently if desired, but as a rule the specific noun will not be used alone. The term 'determinative' applied to such compound expressions rests on the hieroglyphic 'determinative' frequently found in Assyrian and Egyptian scripts, which precedes (or at times follows) a word in hieroglyphic or cuneiform script, to make clear what particular object is intended. A certain word may be a common noun, but in the context is referring to a person or place, and is preceded by the symbol for town, god, king, etc. This is precisely the function of the generic term in the languages under discussion. The term was introduced by Capell (in Capell 1956:44).

One of the clearest examples of this type of classification is seen in the Thayorre language of Cape York (Hall 1972:70). Hall finds that 'at least 15 indeclinable classifiers distinguish all nouns by their presence or absence', e.g. min, huntable prey; yak, snakes; Rur, insects; raak, times; nan, relatives; nok, liquids, etc. These are then followed by a specific noun, the two in compounding acting as a single word-phrase, e.g. min mopoun, pied goose; Rur moppun, butterfly, moth. Sometimes the specific can be used alone, but then with a different significance, e.g. wan, ghost, devil, white man $>$ min wan, enormous eagle. Once the phrase has been used, the determinative may replace the specific: min koton... min in'n... this.... In this situation there is no parallel with prefixes of noun class farther west: they can never be independent forms. Hall adds: 'Classifiers are phonologically, not grammatically, bound to a head. All are obligatory except (kuta) yarman, horse.'

This phenomenon has considerable spread in this part of Australia; nor is it actually limited to Australia. More frequently such markers appear as numeral coefficients in languages of South-East Asia and elsewhere. They seem to be quite an old device of language to specify meaning. It will appear later that some, at least, of these determinatives have served as points of origin for class markers found farther west. This applied especially to a root *mayi, vegetable food, which appears in the more westerly languages of this type as ma-, prefix for trees, foods, and showing, in spite of varying uses in different languages, its origin as a free determinative. In Maranunggu of the Daly River area, the word appears in reverse shape as miya, vegetable
food，and as an element in mlya berlya，water $z_{i} l_{y}$ and other food names（Tryon 1970：52．See 5．5．infra．）．

## 4．2．The Djirbal Phenomenon

There is one region in Australia where free forms are used to mark noun classes．This is in North Queensland，in the region of Cairns， amongst what has been called the Rain Forest peoples．The language best known and used here as illustration is Djirbal，a detailed study of which is to be found in Dixon＇s The Dyirbal Language of North queensland（Dixon 1972：44 and refs．）．

There are several features which mark this language off from others：

1．The markers，four in number，precede the noun，but do not require concord throughout the NP，and do not influence the VP at all，except for certain directionals．

2．They are not equivalent to a definite article，although they occupy the same position in the sentence as the articles do in English．At the same time they are not equivalent to the similar markers in Mawng （Capell and Hinch 1970），although they occupy the same position in the sentence－moreover the latter are repeated with each element of the NP．Semantically they do not carry the same idea of definiteness．

3．There is a strong localising idea in them．
4．Each class has three markers，which are concerned with the distance of the referent from the speaker：

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bala- indicates visible and there.
yala- indicates visible and here.
gala- indicates that the referent is invisible.
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5．The number of referents is not involved，as is the case with some of the prefixed markers in other languages．

The nominative forms of the indicators are somewhat irregular．They are formulated as follows：

| Cl．I．bayi II．balan | III．balam | IV．bala申 |
| :---: | :--- | :--- | :--- | :--- |
| glyi gayi ginjan | ginjam | ginja申 |
| galan | galam | gala申 |

（Dixon 1972：45）．

These are not comparable with the forms used in any of the other Australian languages treated here．They locate rather than define in the sense that articles define in most European languages，i．e．

$$
\begin{array}{lll}
\text { balan djugumbil gangul yaRangu bayan } \\
\text { there woman } & \text { (invisible) man } & \text { sings }
\end{array}
$$

man is heard，but not seen，singing to woman there（Dixon 1972：46）．
The semantic range of each class often seems hard to define．Dixon elsewhere（1968：120）summarises them in terms of certain basic concepts： Cl．I（bayi）：animateness；（human）masculinity． Cl．II（balan）：（human）femininity；water；fire；lightning． Cl．III（balam）：edible vegetables and fruit． Cl．IV（bala申）：is a residue class，dealing with everything else． He admits that the scope of Class IV is very unsatisfactorily defined－ but a similar problem has come up in other MC languages concerning a corresponding class．He goes on to specify some more detailed rules for classification which are not required here．The concern here at present is rather with the forms than the usage of these classes．It is quite clear that in Djirbal the same problem of classification as in other languages has been solved in a very different way．The historical question is whether this represents a later or an earlier solution than in the north of Australia．This question will be reserved for the closing section of the paper．

Another important point is that Djirbal is an ergative language，and therefore the ergative is expressed in the markers．This is done in a rather complicated way；the marker carries three parts：stem，case， class sign．The nominative is zero，and in most cases irregular． Taking Cl．I marker bala－，the nominative is ba－yi；the ergative （instrumental）ba－ngu－l；dative ba－gu－l，genitive ba－刀u－l；in Cl．I yala－forms replace the stem itself by giyi，giving giyi，ya－刀u－l， ya－gu－1 and ya－刀u－l respectively．The nala－forms replace the root by nayi in the nominative but otherwise are the same．This suggests that three place markers，originally taking case endings only，have later developed into class markers as a kind of supplement by suffix，and that these languages therefore belong to the suffixing group．This also will be a matter for later consideration．

For the present，the detail here given is enough to set out the patterning in this area of Australia．Certainly it is enough to show the differences between the Djirbal system and the others already mentioned or to be mentioned later，and to suggest that in Djirbal
classification has possibly been a late development.
There is no formal pluralisation of these markers; plural of nouns may be marked by reduplication where necessary.

## 5. CLASSIFICATION OF PREFIXATION

### 5.1. The Northern Kimberley Languages ${ }^{1}$

In the Northern Kimberley Division of Western Australia there are three communalects which may rightly be ranked as 'languages' in terms of mutual intelligibility tests. These are the 'northern' languages (with dialectal subdivisions), Ngarinjin and Worora. Other forms of speech should rather be classed as dialects. Those on which some information is available are the following:


The locations of these languages and dialects are shown on Map 2 which embodies also a number of the surrounding languages. The latter are of two kinds: those on the south-west belong to the Dampier Land group. One of them, Warwa, is either a meeting place of both groups, or at least has been very strongly influenced by the neighbouring Northern Kimberley languages. (For an account of Njigina and Warwa, see Capell 1953.) On the south, adjoining the Dampier Land languages on the east, is Bunaba. This seems to be genetically related to the Northern Kimberley languages, for there is shared vocabulary, and the verbal system is closely akin to that of the Northern Kimberley, but Bunaba lacks noun classes. Thirdly, on the east, covering the Ord Valley and extending into the Northern Territory, is the Djerag Group. This seems to be more closely akin to the Northern Kimberley languages than is Bunaba; its verbal system.is practically the same in principle as that of the Northern Kimberley. There is shared vocabulary, and
${ }^{1}$ This section is reproduced by permission from an article by the author in Oceania 53:54-65, 1972.


Map 2: The Languages of the Northern Kimberley Division, W:A.
there are noun classes, but only two of them. The classes are not only of different content from those of the Northern Kimberley, but work on different principles, and are marked entirely by suffixes, not a combination of prefixes and suffixes, like those of the Northern Kimberley. Neither Bunaba nor the Djerag languages are considered in the present paper.

In the diagram preceding, no 'type language' has been italicized for the northern section, but only for the other two. This has been done because the northern dialects are all more or less mutually intelligible. Between southern Wunambal and Forrest River there is probably the greatest difference, but even this does not make the two mutually unintelligible. Between any of these and Worora and Ngarinjin there is much more difference, including difference of grammatical principles in the noun-phrase (NP), and it is probable that in the older days when peoples did not mix so much there would not have been mutual intelligibility between them and either of them and the north.

The adjective may be disposed of briefly because it is the simpler case. The Northern Kimberley languages all have multiple classification of nouns. The number of noun classes varies between four in southern Wunambal and six in the other northern languages. ${ }^{l}$ Ngarinjin, Worora and the other southern languages have each five classes on this reckoning.

The semantic content of the classes does not concern the present discussion, though it will be set out below. The classes are formally marked by prefixes, though Worora and Unggumi in particular also use suffixes, often concurrently with the prefixes. Both are used concurrently in Laragiya, the language of Darwin, Northern Territory, now almost extinct. There is concord of prefix between the noun and all its dependencies within the NP: pronoun, adjective, and numeral. Ngarinjin examples of this concord system are shown in the diagram following:

Class | afi djiri aner anganari mafa anoni |
| :--- |
| man that big who-went seeing I-did-to-him |

Class II wonajnjindinjaner njagganarimara njanoni
woman that big who-went seeing I-did-to-her
${ }^{1}$ This reckoning rests on counting the personal plural as a separate class, Class III, which is being done in the present series of studies. The patterning is borrowed from standard Bantu practice.


Pluralization is possible only for people (Cls. I and II), and Cl. III serves for this case; other classes do not distinguish number.

From these examples it is clear that prefixation is a basic principle of grammatical process in these languages, and this applies to person as well as to class. In fact, person seems to be only a special example of classification. It is possible under certain conditions to vary nouns and adjectives for person as well as for class. In the Drysdale area, where endjin is man, one can say nura-mija gur-endjin-mija, youtwo are men, literally you-two you-men-two.

Amongst the nouns that, theoretically at least, take personal prefixes are those referring to parts of the body. These do have their own class assignments, but if used with possessive prefix the latter runs through the whole concord, and not that of the class. The prefixes are in general identical with those of the subjects of intransitive verbs. In Ngarinjin, for instance, one can say a-langun, his head, bïr-alangun, their heads, and also w-alangun and m-alangun if the possessors are Cls. IV or V. The a- of Cl. I amalgamates with the a- of the stem. Other than third person possession is marked similarly: ni-alangun, my head, njan-alangun, your head, etc.

However, many body parts are not constructed in this way: fangu, heart, gives fangu ne:nanga, my heart, fangu njanananga, your heart, fangu ananga, his heart. Here the independent possessives are used, such as are used with objects in general - spears, yams, canoes or what not.

In trying to determine why some body parts take a prefixed possessive while others do not, the student examines the semantic field in vain. Finally, it becomes clear that another principle is involved. Examination shows that it is a matter of initial consonants
as against initial vowels. Nouns which begin with a consonant are invariable for person (including the person of the possessor). 'No prefixation without initial stem vowel' stands out as clearly as the old political slogan, 'no taxation without representation'. The semantic principle - part of body - is overruled by the phonological principle - initial stem vowel.

Adjectives yield the same result when the question of prefixation is examined. Only adjectives whose stems begin with a vowel can be inflected for class. In Ngarinjin budu, Zittle is invariable; -alwa, bad, can take all the class prefixes. Suffixation for number (applied only to personal nouns) is not thus limited: Ngarinjin bir-alwa-ri, they two bad..., carries the dual marker -ri, but this can produce also budu-ri, they two little.... There is no semantic question at all, only a problem as to which sounds are allowed to occur together a problem of phonotactics.

### 5.1.1. The Principles of Noun-Classification

Noun-classification in the Northern Kimberley languages is not connected with any phonotactic rule, so far as appears nowadays, though the absence of a class-marker on the noun itself could possibly owe its origin to that rule. It is something quite separate and forms the second principle to be discussed in the present paper. Students have found the question so difficult that in general they have concluded that there is no principle at all, and at an earlier stage the present writer felt moved to the same conclusion.

Not only the Northern Kimberley languages classify nouns, but there is a whole area of noun-classifying (NC) languages in Arnhem Land, stretching as far as Groote Eylandt, Yanjuwa (at Boroloola) and on the Barkly Tablelands. ${ }^{l}$ In these areas the actual prefixes used in the Northern Kimberley languages frequently recur in a way that cannot be accidental, and some principle is therefore to be expected. Further, some of the languages, e.g. Barkly Tablelands, use suffixes as markers on the nouns themselves, and these resemble the morphemes that serve as concord prefixes in the Northern Kimberley languages. Other languages use both prefix and suffix simultaneously, and these include some Northern Kimberley languages such as Unggumi. It seems that a clear and ancient Australian principle is being followed, even if it is not possible diachronically to trace its history. The second part of

[^1]this section will therefore consider what can safely be said at this stage concerning the NC system in the Northern Kimberley languages.

What has not been noticed hitherto - because there has been no overall comparison of the various Northern Kimberley languages, is that two quite different principles are found north and south of the Northern Kimberley area respectively. The north disregards sex distinction, and man and woman belong to the same NC. The second makes the distinction man belongs to Cl. I and woman to Cl. II. The northern is concerned with the grouping of nouns on certain lines; the south also groups nouns, but allows sex a voice in the grouping. The two subsets of NC languages in the Northern Kimberley region are therefore:

Type I: Forrest River, Ginan, Gambera, Wunambal (north and south).

Type II: Worora, Jawdjibara, Windjarumi, Unggarangi, Umida, Unggumi, and all Ngarinjin dialects.

The Djerag languages have only two classes which are marked by suffixes that are not morphologically identifiable with those of the Northern Kimberley. ${ }^{l}$ Bunaba does not classify. Type I languages have six classes, except southern Wunambal, which has only four; the southern Type II languages each have five.

The southern group will be discussed first, using Worora as the type language because its forms are fuller than those of Ngarinjin.

The interchange of prefix and suffix is not uncommon in these languages. Nouns in Ngarinjin and the northern group do not have s suffixes - this seems to be due to a sort of phonetic breakdown that cannot be discussed here. In Worora many non-nominals carry suffixes of class, e.g. na'nija? where (is he); na|nam? where (is it)?, e.g. a place; dambiju-m m-anaŋga-m, its place. Unggumi, namu-nga milk, Ngarinjin gamu-n (both Cl. IV); maraju-nja, sun (Cl. II), Worora and Windjarumi; Jawdjibara $\quad$-awudja-m, my hair: initial $n^{-}, m y, f i n a l-m$, cl. V.

[^2]

| Masculine | Rational males <br> Irrational males <br> Associated objects (with males) | i:dja, man <br> gananguri, dog <br> djinalja, spear |
| :---: | :---: | :---: |
| Feminine | Rational females <br> Irrational females <br> Associated objects (with females) | wonajinja, woman <br> ganaŋgudj, bitch <br> Jangaldja, wommera |
| Neuter | Non-animates (not associated with male or female) <br> 1. General <br> 2. Local or terrestrial connection | guwonu, tree dambijum, camp |

Number indication is confined to personal and - in this language associated non-personal nouns.

Gender system in Worora as compared vilh class

In Worora, the principles of classification, so far as they are still regular, are shown in Table l; the term 'associated nouns' has been introduced to deal with inanimate objects, such as spears, which become Cl. I or Cl. II through being associated with personal beings. The spearthrower is the servant of the spear as the woman is the servant of the man, so that the spear becomes Cl. I and the spearthrower Cl. II. They are not masculine or feminine but used by beings who are - theirs is a derived, conditional classification. Diagram 2 shows the scheme that results in Worora.

The Worora system is based on a gender system, to which a class system has been fitted. The possible complication of such a double system, given a method of concord indication that involves simultaneous prefixing and suffixing can be seen in the following Worora NP wonaji-nja njind-ja m-ajaru-m m-arun- andu-m nj-anga-nanga-ndu-m woman-II II-this-II V-house-V V-number base-two-V II-she-of-two-V this woman's two houses. Not all phrases are as complicated as this, and the Ngarinjin languages do not have suffixation of this kind, but that pattern is typical of the southern languages.

The northern languages know nothing of gender indication, and the system is entirely one of class, i.e. nouns are grouped into certain sense-groups, which are not ideal, especially with regard to the placing of body parts, but which do represent a real patterning. The scheme for the north is as follows:


Gender system in Worora as compared with class
'Manufactured' is here substituted for the term 'artificial' used earlier. It refers to things such as the boomerang, canoe, and even honey (manufactured by bees), and European goods have a tendency to find themselves in Cl. VI. In Cl. I both male and female are found, and they share a common plural, Cl. III, bïr. In Forrest River dialect, then, big man is b-endjin bi-newir, big woman, gali bi-newir, as against

Ngarinjin a-fu a-newïr and wonaj nj-ane-wïr respectively. Nouns can be transferred from class to class with change of meaning. Forrest River ゥa:li Cl. I, woman represents Cl. IV na:li, paperbark; the woman is the carrier of the paperbark basket. In the Drysdale region there has been a mysterious interchange of Cl . I and II: endjin a-mrïge a-newir, man big one, and a-mba bu-mrïge bïnewir, kangaroo big one, which is very hard to explain.

This type of classification is found in Laragiya, of the Darwin area of the Northern Territory, but the gender-class system is commoner in Arnhem Land, dealt with next.
5.2. Multiple Classification in Arnhem Land Languages

### 5.2.1. Preliminary

MC languages are by no means limited to the Northern Kimberley area; a considerable number of them are found also in Arnhem Land. They are the following:
A. Northern Arnhem Land
I. 1. Laragiya
2. Mangeri-Urningangg
3. Mawng
II. I. Gunwinjgu
2. Gunbalang
3. Burera-Gudjalavia-Gungorogone
B. Southern Arnhem Land

1. Nunggubuyu
2. Anindiljawgwa
3. Wandarang
4. Ngandi
5. Ngalagan
6. Yanjuwa
C. Daly River Area
7. Mulluk Subgroup
8. Daly Subgroup
9. Maranunggu Subgroup
10. Wogadj Subgroup
11. Djemeri Subgroup
D. Victoria River
12. Nungali
13. Wardaman

In addition there is a group of MC languages spoken in the Barkly Tablelands area: these, however, mark class by suffixes, not prefixes, although some of the suffixes are morphological variants of the prefixes of the northern languages. These will be discussed in the following section.

Certain other languages, both in the Kimberley area (East Kimberley) and in Arnhem Land, are dual classifying, 1.e. have only two noun classes. These are treated in subsections 6 and 7 infra.

The subdivisions indicated in the Arnhem Land MC languages are based on (a) the number of noun classes and (b) the forms of the prefixes. At the basis of all the languages there are certain prefixes held in common, especially ma- of plant and arboreal nouns, and a general inanimate group marked by gu-. The languages of the south deviate considerably from those of the north, although the ma- and gu- classes are generally present. The southern languages are much more complicated than those of the north and it is not easy to decide on how to arrange the classes, especially in Nunggubuyu and Anindilyawgwa. The seemingly more 'archaic' languages of Mangeri and Urningangg stand apart in many ways from the others, but bear some still uncertain relationship to Mawng. In this part of the area also there are two instances of pairs of languages, one of which has noun classes and the other does not, yet both share a considerable amount of vocabulary and a number of features of grammar. Jiwadja has no noun classes, but is clearly closely related to Mawng. Ngandi shares a large area of vocabulary with the north-eastern languages of the Murngin or Wulamba group. The latter have no noun classes. In Ngandi, where the same roots occur, they have class prefixes, e.g. Ridarngu wadu, dog, Ngandi awaḍ; Ridarngu dagal, cheek, Ngandi gudagal. Verb roots are also shared, e.g. Gubabwiyngu nara maR刀gi, I know, Ngandi namaRngi. Some agreements with the Gunwinjgu area are also present; both languages have classes but Ngandi classification differs: Gunwinjgu gun-djen, fish, Ngandi a-djen. Yet Ngandi has the gu- class also, but it has the extra 'animal' class that Gunwinjgu does not have. South of the Daly River, Djamindjung has no noun classes but its 'sister' language Nungali has five classes. The following sentences show this curious parallelism:


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1. Men these three big

Nungali diyimbul yida:bu yidanmulu dina:dj
Djamindjung djumbul yundju murgunmulu luba
2. Women these three big

| Nungali | $n j a \eta a r u n y i n j a m b u ~ y i n j a n m u l u ~ n j a n a: d j ~$ |
| :--- | :--- |
| Djamindjung | maleyi yundju murgunmulu luba |

No reason can be given so far for such parallel occurrences. Nungali concordance is full, as in other MC languages; Djamindjung has never developed classes. Djamindjung gunbuwa nargina, my birthplace, becomes Nungali ni-lalan ni-nargina, both nouns carrying a prefix (and Nungali lalan is Ngarinjin for the dreamtime). So also Djamindjung djuwud guøgina, your eye, is Nungali mi-yanargin mi-nungina. The languages differ considerably in vocabulary, but are yet 'parallel' in the same way as Jiwadja-Mawng, Ridarngu-Ngandi.

In a similar way, Wardaman in the Katherine section of the Daly River, has noun classes, whereas Wageman, Djawan and Yangman do not.

### 5.2.2. Laragiya

Laragiya was spoken - and still has one or two speakers - in the area now occupied by Darwin and its neighbourhood. It is a five-class language, of the type of the northern section of the Northern Kimberley, 1.e. it has a 'human' class but no distinction between masculine and feminine: it is a 'Bantu' type, as against the languages of the southern section of the Northern Kimberley already described. Another peculiarity of the language is that markers are simultaneously prefixed and suffixed: b-ilu-va, man; m-adbar-ma, forehead. The former points back to an early Australian root *badun, man, and the latter to a root *malara, forehead. While this paper is not concerned to any degree with historical restoration, it is worth noting that the root *badun, which has retained its initial consonant in Laragiya, has then used that initial consonant as a prefix for nouns of this class, while it has again added a final vowel and used it as a suffix. The stop has become a bilabial fricative $v$ (a rare sound in Australia) in the process, producing -va. While the consonant is retained in the plural (Cl. II: -bira), this seems to be a special case of the *bara that expresses a personal plural so widely in this part of Australia, and has been noticed earlier in this paper. It may also be added that Ngarinjin has aRu, man < *baduf, and has used the initial a- similarly
to mark the masculine class. These facts suggest that noun classing, at least here, is a comparatively late phenomenon. Something more will be said on these matters in the concluding section. Laragiya noun classes are as follows:

Class I: b-...-va, e.g. b-ilu-va, man; ${ }^{\text {b-injid-ba, woman. }}$
Class II: b-...(bi)ra, personal plurals: b-ili-ramen;
b-injid-bira, women.
Class III: g-...(g)wa, general impersonal:
g-aRu-wa, water; g-win-gwa, nose
Class IV: m...-ma: liquids and some other nouns:
d-amu:l-ma, river; m-alu-ma, head.
Class V: d-...-da/la: lesser animals and some other nouns: g-udgi-da, opossum; da-madji-la, blood.

There is some rather strange crossing of groups, by which the prefix of one class is combined with the suffix of another, e.g. m-uya-gwa, bone (IV + III). Here possession has played a part in that suffix is to be taken as its. dalira, sun, has probably been affected by mythology; guwa:guwa:va, crow, is really Cl. I (va) in spite of beginning with gu- (III). A Laragiya grammar at present under preparation will endeavour to deal with these matters more satisfactorily than is possible here.

Interchange of class also arises from semantic causes, e.g. birilva (I) human hair > biril-ma (IV), hairbelt, damadji-la (V), blood > damadjidamadji-gwa (III), red paint.

Laragiya concord is exactly like that of the Kimberley region, including its presence in some words that in European languages are local adverbs, such as where in where are you going? Class enters into the object of transitive verbs - the language is not ergative; yaba bidlan, he speared him or her; yaba gadlan, he speared me.

This is one of the more complicated languages of the area, but serves as a direct link with the languages of the Northern Kimberley, especially the northern section of them.

### 5.2.3. Gagadju

Gagadju appears to have been spoken on the lower part of the south Alligator River, across to the west Alligator. Today there are only a few speakers and these usually live at Oenpelli Mission. It is an
extremely interesting language, and presents a number of unusual features. Besides marking gender in the noun classes, by means of prefixes, it has a set of suffixed gender markers that combine with number markers on the pronouns and verbs.

The pronoun set is basically a singular set of four (including a 3rd person feminine), to which suffixes are added marker number and gender. The personal stems are: person l. nanj-; 2. jinj-; 3. masc. na: $\mathrm{yu}^{-,}$, and 3. fem. na:yu-. These take usually suffix -ma, which looks like an agentive marker - not ergative, for this is not an ergative language. Between stem and agentive are added gender and number markers: dual masc. -mana-, dual fem. -ndja-; plural masc. -da-, fem. -mba-. The resulting set is:

Singular

## Dual

ma'nerama
(ma'nedjama)
( クa'manama
ninja'manama
nin'jandjama
nano'rondjama
1jo' Yondjama

Plural
ma'nedama ma'nembana
' $\quad$ Jadama
' nambama
ni'njadama
ni'njambama
no 'rodama
no'Yombama

Short forms of the bases are used to mark possession, e.g. manera wa'la:lu camp of you-and-I; jinanda ga'bo:ndji, your (pl.m.) house. Certain types of nouns prefix possessives; the number of items possessed is marked by suffixes - or it may be the possessors: nadj-baraŋa-mana, my two brothers.

Nouns are grouped into five classes, as are adjectives and demonstratives. These are by prefix as a rule, but one demonstrative uses infixes, and yana, where? uses suffixes. The noun itself carries no marker of class. The forms are:

|  |  | $b i g$ | this | that | where? |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Cl. | I. | miniwara | na- $\phi-r i$ | na-biri | yana |
|  | II. | nji-miniwara | $n j a-n a-\phi-r i$ | njina-biri | jana-nja |
|  | III. |  |  |  |  |
|  | IV. | gu-miniwara | na-rga-ri | na-nabiri | yana-ŋga |
|  | V. | ma-miniwara | na-ma-ri | ma-nabiri | yana-ma |

These are very reminiscent of the Northern Kimberley, especially the southern subgroup (Worora-Unggumi, etc.) where a similar set of prefixes and suffixes is found, though without the infixing. There is very clear evidence also in the variety of the above tables that both prefixes and suffixes originally co-occurred.

The adoption of foreign words often helps to show up class concepts. A motor car to the Tiwi is mútika, and ending in -ka is feminine; to the Gagadju it is módoga and beginning with $m$ is $\mathrm{Cl} . \mathrm{V}$ : módoga mayayni, the motor car comes. Sex plays a part in class allocation as in Worora and Ngarinjin; so does mythology, e.g. the moon as a male is madba, Cl. I; the sun as a female is go'bolbara, Cl. II. Cl. V contains trees and wooden objects, also manufactured goods made from wood; Cl. IV embraces many lifeless objects such as gu'djali, fire, and wu'nari, smoke.

### 5.2.4. Urningangg and Mangeri

The very few speakers of these two languages - Uṇina:ng, Mane:Ri are domiciled nowadays at Oenpelli. They would seem to have lived earlier about the east Alligator River, and the differences between them seem to be only at dialect level: no actual test of status has been made. Both have a comparatively small CA content, but such CA elements - or EA - belong to the same stratum as in Mawng and neighbouring languages. Thus $I$ is na:b in Mangeri, no:g in Urningangg; water is ogog in both - apparently a reversal of *gugu. Each is a four-class language, and it is noticeable that a fifth class answering to the personal plurals (Cl. III) of the other languages studied here is not found, for these two languages have a system of non-singular marking by suffixes. This is reminiscent of Gagadju, but morphologically different. The dual number is marked by a suffix -mun: garga, we > garga-minuwu-mun, you and $I$ and gane-minu, we (excl.) > gane-minuwu-mu, he and $I$. Here a dual 1 s being shown by $-m i n u(w u)$ and a non-singular by -mun. In Mangeri similarly gana:nj, we (excl.) go and nana:njamun, he and $I$ go. The verb incorporates a pronoun object, and the object forms of a transitive verb therefore exhibit the class of the object, as in most languages of this group. There is full concord of all variable parts of the sentence. Some of the Urningangg prefixes appear in the following paradigms:

|  | this | dead | short | good |
| ---: | :--- | :--- | :--- | :--- |
| Class | n. | nagenann | yawul | aningurb |
| II. | nadjegamulal | indjiwul | iningurb | njinbiyamulal |
| III. | ana:jan | ugul | uningurb | unbiyamulal |
| IV. manèman | mindjagul | maningurb | manwiyamulal |  |

Number is then indicated by a suffix to the required class form, so that necessity for Cl. III of the other languages is not felt - and the numbering of the above classes is not semantically equivalent to those of the languages earlier set out in this paper: see below on this question. The usual pluraliser is -ad: for short, Cl. I munu-ningurb-ad; Cl. II miraningurb-ad; Cl. III u-ningurb-ad; Cl. IV man-iggurb-ad. The pluraliser -ad is found in Mawng and Jiwadja also. The dual instead of -ad suffixes -uwuman as in the pronouns: dead, Cl. I min-yulu-wuman; Cl. II mira-gul-amun; Cl. III u-gul-amun; Cl. IV mindjagul-amun. The changes in stem and the morphophonemics have not yet been worked out in full. There is no parallel to these dual forms in the other two languages. Mangeri forms differ very little from Urningangg. The Mangeri numeral one for instance, is : Cl. I iyawa:m; Cl. II indjawa:m; Cl. III wiyawa:m; Cl. IV mayawa:m. It is hoped to publish later a fuller study of these languages in comparison with Maung and Jiwadja.

The incorporation in the verb is the same in Mawng: intransitive verbs mark class in the subject, transitive verbs mark it in the object, and both are prefixal; the object preceding the subject.
Example: stand, present, Urningangg

|  | Singular | Plural | Dual |
| :---: | :---: | :---: | :---: |
| 1. incl. | - | muyand | mu-yandj-amun |
| 1. excl. | nayandj | nanyandj | nan-yandj-amun |
| 2. | indjandj | inyandj | in-yandjamun |
| 3. I. | jandj | munyandj | mun-yandj-amun |
| II. | indjandj | muradjandj | mura-yandj-amu |
| III. | uyandj | uyandj | u-yandj-amun |
| IV. | mandjandj | mandjandj | mand-yandj-am |

There is also a trial possible here: mu-yandj-o:ndj, etc. suffixing the root of the numeral uno:ndj, three.

While pronouns are used before nouns to indicate possession, some kinship terms and body parts are least prefix possessives, adding number suffixes if required. A few of the object prefixes are exhibited in the following Urningangg sentences:

1. Wurig nunja wa:dja-ma-waRag
man us came-us-after The man came after us.
2. im-bai-ja-waRag you-came-me-after You folzowed me.
3. jagiwendj arabilm menj-ar-uwemb
crocodile leg IV - I - bit The crocodile bit his leg.

From the verb imewemb, I bite it, forms such as the following can be produced on the basis of object - subject - root: Cl. I subject

$$
\begin{aligned}
& \text { menj-ar-uwemb } \\
& m e-I-b i t \\
& n j-a r-u w e m b \\
& y o u-I-b i t \\
& \text {-am-uwemb } \\
& I-I-b i t
\end{aligned}
$$

From these few notes, which the length of this paper does not allow to be increased, it is clear that these languages present a number of complications not seen in the other languages of North Australia, except so far as they appear in Mawng or Jiwadja. The very small number of recognisable CA roots, as well as the complex phonemic structures, point to an old stage of language, which is seen also in, for example, Margu.

### 5.2.5. Northern Arnhem Land

For the purpose of the present survey, languages A.I. and the whole of $B$ may be taken together.

The class markers in these languages are as follows:

| Class | Mawng | Gunwinjgu | Gunbalang | Gungorogone | Burera |
| :---: | :--- | :--- | :--- | :--- | :--- |
| I | yi- | na- | na- | an- |  |
| II | ninj- | gal- | nal- | dju- | djun- |
| III | wi- | biri- |  | awiri- | abiri- |
| IV | wu- (n)- | gu(n)- | gu(n)- | gu- | gun- |
| V ma- | man- | ma $(n)-$ | mu- | mun- |  |
| VI | aw- |  |  |  |  |

There are other languages (or dialects: no examination has been made) such as Gundjebmi, Mayali, which belong to the Gunwinjgu group; Gungorogone is very closely related to Burera, as also is Gudjalavia. These are not listed separately here.

The coverage of the different classes shows a good deal of local variation, and it is difficult to give detail in a short space. For Mawng reference should be made to Capell and Hinch 1970:44 ff. Roughly the Mawng classes cover: Cl. I names of male beings; Cl. II names of female beings, both either rational or irrational; Cl. III plurals of Cll. II and III for rationals only; Cl. IV objects associated with the ground and general inanimates, except plants; Cl. V trees and their parts, Cl. VI vegetable foods and plants in general. One important point is the ability of Mawng and some other languages to cross classes. Thus taking mawur, arm, it may be yi-mawur, a man's arm; Dinj-mawur, a woman's arm; wu-mawur, arm of a river; ma-mawur, arm of a tree, branch; or a-bawur, arm or tendril of vine. Some of the other languages share to a limited extent in this power of cross-classing. The concord extends through the whole sentence (and any dependent clauses may be involved), and includes not only the subject of intransitive and the object of transitive verbs, but in Mawng the subject of a transitive verb may also be involved, e.g. nanna-, subject of cll. II, IV, V, or VI does it to me; ganbunba-, you (sing.) will do it to Cl. III, and many other complicated combinations. There is more differentiation here than in the Forrest River dialects of the Northern Kimberley.

In addition, Mawng has what can only be described as an 'article', which also varies for class. It occurs before a noun and dependent adjectives, e.g. dja nani-malgbanj, my father; mada gargbin mada walg, art. big art. tree, the big tree. There is much idiomatic use of these articles which is detailed in the Maung Grammar.

The other languages behave similarly but most are simpler in their usages. In Burera an-glgaliye an-munu, man big; gigali-yiridje
muṇuno-yarldje, two big men shows the form of a dual number. The conjugation patterns are similar also among the languages, but as a rule the non-personal rlasses use the person markers of the verb, so that there is not the complication of prefixes such as Mawng presents.

### 5.2.6. Southern Arnhem Land

In all the six languages listed in this group, the situation is much more complicated, and the feeling arises that classification is not really 'at home' in this area. Not only are there extra classes, but many subdivisions which cannot be detailed here. Reference may be made, for instance to the Nunggubuyu Dictionary (Hughes 1971(I):xx111xxv). Capell (1940) at first divided nouns in Nunggubuyu and Anindilyawgwa into eight classes, and modelled Yanjuwa nouns on the same pattern. This was not satisfactory, and left minute distinctions between III and VIII which were hard to justify. Hughes has reduced Nunggubuyu to five classes, but with many subdivisions in which differences occur in the behaviour especially among demonstratives. Moreover, Nunggubuyu has two forms of most prefixes, one being more definite than the other. There is no space to treat these features in detail here. The language also has dual and plural forms for each class. Anindilyaugwa agrees fairly closely with Nunggubuyu in most classes - and gave the same trouble, for the same reasons, in the preliminary classification. The assignment of nouns to classes is roughly the same as in the more westerly languages, but some interesting transfers sometimes occur, e.g. Nunggubuyu ana-Ranag, tree; manaRaŋag, canoe, by a transfer from the 'vegetable' to the 'water' class.

In these languages the sentence concord can become very complicated, e.g. Nunggubuyu

```
ya\etai-njug nani-muwa:d-jun na-walyi-njug nu-wagi na-Rungal-jun
what-I his-name-person I-man-person I-that I-big-person
nani-na-ni
I-him-see-past
What is the name of that big man (whom) I saw?
```

In the plural (Capell's Cl. III):

```
ya\etaa-ya\etai waru-mumuwa:dj wara-waljawalja wara-wurala
what-(pl.)III-names III-men (pl.) III-big(pl.)
wara-RuggaRuggal nara-na-ni
III-big (pl.) I-them-see-past
```

This language also has a dual for feminine and masculine as well as a plural. The reduplication of forms for plurals is worth noting. Animal names use practically the same prefixes as personal plurals, but do not form plurals and do not take the personalising suffix -njun, etc. Thus:

```
ya\etai waru-muwa:dj wa-landurg waru-wawa waru-Rungal gara-na-ni?
what III-name III-dog III-that III-big I-it see-past
What is the name of the big dog that I saw?
```

The same sentences are constructed on very similar lines in Anindilyawgwa but of course with different morphemes. The prefixes in the two languages (retaining Capell's count for the same of simpler setting out) are:

| Class | Nunggubuyu | Anindilyawgwa |
| ---: | :--- | :--- |
| I | na- | ni- |
| II | wini- | wuna- |
| III | wara- | wura- |
| IV | na(ra)- | da- |
| V | wini- | wurna- |
| VI | a-~ana- | a- |
| VII | ma-~mana- | ma- |
| VIII | wa- | yi- |

In Nunggubuyu, examples are:
I: na-walja-yuf, male person (-yun marks personality); II: na-walja-wa, two male persons; III: wara-walja-walja, persons, male (reduplication of stem included here); IV: nara-manin-jun, aboriginal woman; V: nara-manim-ba, two aboriginal women; (III: jara-manan-un, aboriginal women; this is an irregular noun); VI: $\phi$ or a- or ana-; a(na)Ranag, tree; VII: ma(na)larda, spear.

In those languages also there is concord within the verb for class of both subject and object throughout, so that they present a very complicated pattern of sometimes very lengthy words. Practically nothing has yet been published about Anindilyawgwa, but Miss Judith Stokes, of the Church Missionary Society, has studied it for many years and is producing local reading matter in it. She has not published a grammar as yet. It is quite likely that, like Hughes, she
will ultimately adopt a different arrangement of classes.
P.M. Worsley, however, has discussed the nature of these classes in an interesting article (Worsley 1954:275-88), and has pointed to 'a cross-cutting system of noun classification by means of prefixes, entirely unconnected with the known noun-classes, and most definitely based on semantic considerations'. He has listed some twenty secondary prefixes, such as -uru(r)gwa- for birds, some animals, e.g. d-urugwin names for fowl, cockatoo, curlew, horse; m-urugw- in names for lorikeet and emu; -embirg- for round things, as embirg- (Cl. VI) water lily roots; m-embirg- a white berry; y-embirg- (Cl. VIII), stingray species, egg, red love-apple. Obviously much more analysis needs to be done on this language.

The southern neighbour of Nunggubuyu is Wandarang. There would seem to have been some territorial changes in this region, as Wandarang has more vocabulary in common with Mara than with Nunggubuyu, while adding classification which is not present in Mara. Mara radbur, camp becomes Wandarang wu-radbur; Mara dupal, spear becomes ma-dugal (the 'wood' connotation of ma- remains - although it apparently derives from an original *mayi, vegetable food), while Mara wungan, dog is Wandarang (R)awungan. Another Mara touch is a great fondness for compound conjugation (to be discussed in the second part of this paper) which is not found in Nunggubuyu.

Wandarang has five noun classes, but Cl. III is not the plural of I and II but a separate class. Dual is indicated by a suffix wulu-, and plural by yiri-. The former is shared by Mara. The class forms are shown in the following phrases (a couple of which are theoretical and would hardly occur in daily life, certainly not Cl. I). They are:

| Cl. I. | na-waRiyi na-balwayi na-nugioa na-wanani man big my that |
| :---: | :---: |
| Cl. II. | gi-woybi gi-balwayi na-nunina gi-wapani |
|  | woman big my that |
| Cl. III. | wu-radbur wu-balwayi wu-nupiga wa-wuni |
|  | camp big my that |
| Cl. IV. | ma-dugal ma-balwayi ma-nupiga ma-mani |
|  | spear big my that |
| Cl. V. | (R)a-wuggan (R)a-balwayi (R)a-nupiga (R)a-warani |
|  | dog big my that |

It is noticeable that the demonstrative takes a kind of double concord within itself: such an infixing of class marker was seen in Gagadju.

The initial consonant of $\mathrm{Cl} . \mathrm{V}$ is optional: both Ra- and a- are used. The a- form is found in Mawng, and the ra- form in Yanjuwa, but the class is relatively uncommon in the group.

The number markers are seen in the following sentence:

$$
\begin{aligned}
& \text { yiri-waRiyi yiri-balwayi wawuruni waR? galgu-windima-ni } \\
& \text { pl. man pl. big those seeing I-them-do }
\end{aligned}
$$

The class prefixes play a part in the transitive verb, following the general pattern (common throughout these MC languages) obj + actor + verb, e.g. nagu-ni-baŋ. me-I-bites; nagu-Ra-ban, me-V-bites; but without -gu- in IV ゥa-ma-baŋ, me-IV-bites, as ma-wanga ga-ma-ban, bandicoot bites me. There is one difference: duals and plurals of objects are marked differently from nouns: WaR? gaRa-windimani, he or she sees me; waR? nja-raru-windimani, he sees us two (incl.); waR? nji-liluwindimani, he sees us (excl.). This is all very like Mara.

While this is not put forward as an example of a so-called 'mixed' language, there are certainly some cross influences at work in it, that may well have historical information to yield. Something more will be said in the general section of this paper.

Between the Phelp and Wilton Rivers the Ngandi language is domiciled. In general it is very similar to Wandarang, but its borrowings (if such they are) are mostly from the Ridarngu language, which belongs to the 'Yulngu' languages of north-east Arnhem Land, an enclave that is not classifying. Here there are six classes; Cl. III is again a common plural for personal members of $I$ and $I I$, but a dual is formed by the addition of -bula to a stem of any class. This is the early Australian root *buladj, two, and it means that originally this language did not provide for the expression of a dual. The same set of sentences as were used for Nunggubuyu will serve again in Ngandi translation to illustrate the classes:


```
Cl. V. mandja ma-wangara ma-wanara ma-na na-ma-na-nl?
    what bandicoot big that I-it-see-past
Cl. VI. andja a-wadu a-wa\etaara a-na naRa-na-ni?
    what dog big that I-it-see-past
```

The development of class and number have been distinct in this language. The Murngin wangan, one, is added to a word for two, to make three, and both carry the plural prefix ba-: ba-yabban ba-wangin, $2+1$. The word gabbul of Ranjbarngu, etc. can be used in Ngandi as the suffix of a paucal plural.

The remaining language of this group is Ngalagan, which belongs to the west of Wilton River, between it and the Roper. Here there are considerable variations on the common pattern: (l) four classes only; duals and plurals are marked by suffixes, like Ngandi: -bira, dual and -gabbul plural; (2) the Cl. prefixes are: $I$ nu(gu)-; II dju- (as in Burera); III gu-; IV ma-. This is then rather a northern type language, influenced by those on the west (which are not classifying). (3) The class prefixes are separable, and sometimes the noun appears without them, sometimes with a strengthened form of prefix. The previous sentences here become:
Cl. I. nu-yana? ne: nugu-n?biri nugu-bigur nugu-nolggo
what name that man big
nu-na-ni-n?
I-him-see-pres.
Cl. II. dju-yana? ne: djugu-n?biri bolo?bolo djugu-golggo what name that woman big
nu-na-ni-n?
I-her-see-pres.

In an example of a plural formation:
nu-yana?-bira nune gun-bira-bira bigur-bira
what name those men
nu-bun-na-ni-n-bira?
$I$-them-see-pres.-plur.

It is unusual for plural to be marked with Classes III and IV. Another peculiarity of this language is that it is ergative: this also will have been taken over from languages to west, some of which have it.

### 5.3. Multiple Classification outside Arnhem Land 5.3.1. Yanjuwa

This language, which has been called at different times Anyula or Yanyula, but which its own speakers call Yanjuwa (Yanyuwa), is spoken about Boroloola and the lower Macarthur River. It is quite definitely the most complicated structurally of the MC languages - more so than Anindilyawgwa or Nunggubuyu. The formations point to stages in the formation of the MC languages and for this reason are particularly important for the present study. They are therefore given in some detall here, because reference to them will be necessary in the general discussion in the following section of the study. The first beginnings of an analysis was made by Capell in 1941; workers from the Summer Institute of Linguistics have been stationed among the people for a number of years past, and reference should be made especially to the work of Jean Kirton of the SIL (Kirton 1964, 1967, 1970, 1971a,b) and also to Elfreda MacDonald (MacDonald 1964) and on more general grounds to Dixon on Noun Classes (Dixon 1968). A study of the Yanjuwa is still awaited; practically all the above references refer chiefly to the noun phrase, although Kirton (1970) does go beyond this. The present concentration is, of course, on the noun-classing system.

This system has complications not only in range of classes and their contents, but in the formatives as well. Yanjuwa is an ergative language, as are some of the others which have been looked at in the preceding pages, but Yanjuwa has the special feature that ergativity is marked in the prefix as well as in the normal manner of indication by suffix to the complete noun. This feature was noticed to a small extent in Nungali; it is more noticeable in Yanjuwa.

One of these other phenomena, indeed the most important, is the form of the ergative case in Yanjuwa. In Nungali words beginning with dchange this to $n j$ - in the ergative. In Yanjuwa all nouns mark ergative in the prefix as well as in the ending. The ergative marker is the normal Australian suffix -lu. This is added to the noun in a Yanjuwa sentence, but the class prefix is also modified by change of final vowel to -u. Thus:

$$
\begin{aligned}
\text { Intrans. } & \text { giya-winga nja-miṇiniya } \\
& \text { he-walks the-man } \\
\text { Trans. } & \text { ganj-ilu-yambina-njdji nju-miñiniya-lu } \\
& \text { him-he-make-we Zl-pres. the-man }
\end{aligned}
$$

The change of nja-miņiniya to nju-mininiya-lu is a characteristic of Yanjuwa. It will be argued later that this points directly to a time
when the class prefix was a free determiner, not a bound form at all, and it will be further argued that this stage preceded noun classification in all the languages (see 9.3. below). In a meeting of the Linguistic Society of Australia at Macquarie University, Sydney, in 1975, Miss Kirton presented a paper on Yanjuwa nominative and ergative-allative cases, concluding with a diagram that is here reproduced as a summary of the present argument:

|  | Nouns, noun-modifiers Interrogatives | Free Pronouns | Participles |
| :---: | :---: | :---: | :---: |
| Nominative | $\phi$ | - $\phi$ | 171717171 |
| Ergative | -1u |  | -1u |
| Allative |  | -1u | 171117 |

This patterning is peculiar to the Yanjuwa language amongst the classifying group of Australian languages.

Basic class prefixes in Yanjuwa are the following:

| Class | Prefix | Category |
| ---: | :--- | :--- |
| I | nja- | male |
| II | ra- | female |
| III | ri- | personal dual |
| IV | $1 \mathbf{i -}$ | personal plural |
| V | ma- | food, and certain other items |
| VI | na- | arboreal and some other items |
| VII | naṇ- | abstract ${ }^{1}$ |

## Examples:

Cl. I nja-miṇiniya, man; nja-duwara, initiated boy.
Cl. II ra-nanawaya, woman; ra-wamalaŋi, girl in early adolescence; ra-wunamudu, female opossum.
Cl. III ri-badibadi, two old women; ri-wulu, two aboriginal men.
Cl. IV II-yumbuwara, young people.
$l_{\text {This }}$ diagram is a conflation of Capell's original arrangement and Kirton l97lb:20. It does not give as much information as the latter, but follows the building up of what has to be said below with less complication.
Cl. V ma-nara, food (same word as Nungali); ma-yulbu, rope; ma-wudawuda, stone knife.
Cl. VI na-alanjdji, camp; na-wulgu, bark canoe; na-wulafi, river; na-wunan, breast.
Cl. VII naṇu-njirga, corroboree ground; naṇu-wadi, evil, badness (wadi, bad), naṇu-yagayaga, madness (yagayaga, deaf).

There is also a masculine class marked by zero prefix, but taking masculine concords: awaRa, earth, country; wurundula, male dingo; galabir, ghost gum; wuga, word, language; yiliri, blood and many others. The numerous nature of this zero class is an indication, perhaps, of a late adoption of classification into the language which is suggested by certain other phenomena also.

This language has elaborate sets of prefixes for person - including first and second person, as well as all the Classes of 2nd person some of which apply to body parts, three separate sets applicable to kinship terms - and, of course - still others applicable to verbal stems and not to nouns. There are sets of suffixes labelled by Kirton as nuclear, referent, directive and accessory. These cannot be dealt with here (see Kirton 1970, 1971). Some of these are prefixes, others suffixes, if case markers are included. A full analysis in terms of generative linguistics in its various branches, would probably throw a lot of light on the linguistic history and on the psychology of the speakers at the same time. The functional divisions between prefixation and suffixation could also provide profitable studies along these lines - but they are beyond the scope of the present paper.

There may also be historical information hidden in the fact that Yanjuwa, on the north-eastern border of the prefixing MC languages and Worora on the north-western border, are both among the most complicated languages of their type. On the south of Yanjuwa there are other MC languages, but these act by suffixation only, and they form the next section to be studied. They, in their turn, have languages of rather similar construction, but much greater simplicity, in an area of northeastern New South Wales, far away to the south-east of the central core.

### 5.4. Isolated South-western Languages

There are two isolated MC languages which may be discussed along with the Daly River languages, although they do not belong to this group in any more than a geographical setting. They belong to the mainstream of the MC languages as far as their actual formatives are
concerned. These are Nungali and Wardaman, both of which were chronicled by the writer in 1939.

### 5.4.1. Nungali

Nungali is spoken in an area between the Daly and Fitzmaurice Rivers. It is a 'sister' language to Djamindjung and Yilngali fairly close to them in vocabulary, but both of them are classless languages, whereas Nungali has five noun classes of the common form, not of the Daly River type.

Examples in sentence form of the resemblances between Djamindjung and Nungali were given in an earlier section of this paper (5.2.1.). Some additional matter and clearer analysis is added here.

Where vocabulary is shared, the Nungali words often - but not necessarily - have class markers prefixed: Djamindjung wiRa, hair; Nungali ni-wiRa; Djamindjung djaRa, mouth; Nungali ni-yaRa. A different case is Djamindjung dju-wiya, nose; Nungali ni-wiya; the first could be a class marker in Burera, but in Djamindjung apparently is not.

Nungali noun classes are:

| I | di- | chiefly male beings |
| ---: | :--- | :--- |
| II | nja- | chiefly female beings |
| III | wiri- | plurals of I and II (persons) |
| IV | ma- | vegetable foodstuffs |
| V na- | objects in general, and meat foods |  |

In the plural class given here, the common prefix wi-, wu- is marker of the 3rd person plural in the verb: in Djamindjung it is buru-, bu-. Nungali extends the concord through all the usual categories excluding verbal objects.

Nungali nouns do not necessarlly carry a class marker: ni-yab, liver, but dulu, heart. Curiously enough, vegetable food, manara is Cl. I (yidabu, this), the same as meat di-yanara, which is also kangaroo.

There is an ergative suffix -ni which occurs in some of the collected examples, but its use does not seem to be consistent, e.g. baba-ni gargu nanimilim numurun di-yayara-g, brother-erg. my dug a hole kangaroo-for: baba-jiram-ni di-nargina-jiram winginjdji dumurgum di-yaŋara, my two brothers killed three kangaroos. But the plural was recorded as baba di-nargina birijada... not baba-ni: and also the ergative seems not to occur with a dependent word such as adjective after the subject noun.

Examples of the concords are given as follows: di-yimbulyl-dabu, man this; daruwuru yi-njambu, married man that; but there is infixing

In these demonstratives: ma-nara yi-ma-mbu, that food; nja-ŋarun yi-nja-mbu, that woman - so that Cl. I form is actually yi- C -mbu just as In Gagadju na-申-ri, this, rather than *yi-yi-mbu.

There is another pecularity: Nungali does not appear to be an ergative language, but initial $d>n j$ in $C l$. I nouns as subjects of a transitive verb, e.g. dulga ganijuburag father told them...; but njulga nenangani, father gave it to me; duRib, dog, but njuRib naniwa, the dog bit you; njuRib nananbawa miRi, the dog bit my leg. Other initials do not seem to change in this way.

No fuller recording has been possible, and a search for speakers of Nungali about 1970 failed to locate any.

### 5.4.2. Wardaman

Wardaman belongs to the Upper Daly, towards Katherine, but it is not identical with Wageman, as stated in A Revised Linguistic Survey of Australia (Oates and Oates 1970:14). The latter has no noun classes, but Wardaman has three, and, like Nungali, they are formally consistent with the northern languages, not with those of the Daly River. The information drawn on was gathered in 1940 by Capell.

The noun classes are three:

```
Cl. I yi ~ yu- yi-biwan yi-yibi, man living; ba\etabun yi-man,
woman bad; ga\etaman yu-guRul, kangaroo big
```

Cl. II wu-
yumin wu-guRul, tree big; yumin wu-man, tree bad; gulina wu-djuda, firestick short
Cl. III ma-
 honey plenty; may?yin ma-Rirun, food no good

Class I contains names of living beings, whether human or animal, male or female. Some names of valued implements such as the spear, and such an important item as water are included. Class I contains all other names of objects, except vegetable food - and this may also be treated as a valued item and go into Cl. I, though it is also Cl. III, the general class of vegetable foodstuffs.

Wardaman does not extend the concord to the pronoun, numeral or verb, as most of the MC languages do. Plurals are indicated when necessary by suffix or marked in the verb, there is a dual suffix -wiya, as in baba-wiya, two brothers. There is also an ergative suffix -yi
(Nungali -ni); for example
baba-wiya-yi ganlgin-yl wurmin djarin ganma-wu
brother-two-erg. my-erg. they-dug hole kangaroo-for
My two brothers dug an oven for the kangaroo (gamman)
In both Nungali and Wardaman the feeling grows that noun-classing is a foreign process that has been introduced. The general kinship is with the northern languages, perhaps through the Gunwinjgu group. The ergative will be a still later introduction; evidence will be cited in the closing section of this paper for considering ergavity to have been introduced to these languages after noun-classing. This becomes particularly apparent in Yanjuwa (Kirton l97la,b).

### 5.5. The Daly River Languages

The Daly River languages not only form an obvious group, but there is good documentation for them. They differ from the other multiple classifying languages to a certain degree in features, most of which are shared among them, and these are not limited to the system of noun classification. Verb classification is also a similar shared feature (see Tryon 1970). Hence the position assigned them in the present paper. There is a detailed study of the Daly River and neighbouring languages available (see Tryon 1974). It is therefore sufficient to indicate their general features and to give short specimens to illustrate the points drawn out by Tryon. The chief references here are based on Tryon's closing chapter ('Overview', Tryon 1974:287-305), recommending the work itself to students requiring more detail.

Tryon states (1974:292) that 'unmodified noun classes within the Daly Family number between four and seven'. All the languages have four classes in common, arranged as follows:

Class 1: Body parts, kinship terms, natural phenomena. 2: Animals hunted for meat. 3: Vegetable food and plants. 4. Wooden implements, trees, weapons.

In most of the languages masculine and feminine animates are provided for specifically. The four classes found are more limited, and no language actually shows all. They are:

Class 5: Trees (as opposed to implements, wood products).
6: Male humans.
7: Female humans.
8: Domesticated animals.


MAP 4: The Daly River Languages (From D.T. Tryon, "Daly Family Languages in Australia". p.xv.)

## Table 1: Noun Class Prefix in the Daly River Languages

 (After Tryon 1974:293.)| Language | Class: 2 | 3 | 4 | 5 | 6 | 7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Mulluk-Mulluk | te- | mi- | t」ön- |  |  |  |
| 2. Djeradj | te- | miyu- | tjunu- |  |  |  |
| 3. Madngala | pinya- | miyi- | yim- |  |  |  |
| 3a. Yunggor | yinja- | yiyi- | yim- |  |  |  |
| 3b. Gamor | pinja- | meyi- | yim- |  |  |  |
| 4. Maridhiel | a- | mi- | yeli- | tar- | wati- | nupku- |
| 4a. Maridjabin | a- | mi- | yeli- | ta- | ma- | munti- |
| 5. Maramanandji | a- | mi- | yali- | tar- | wati- | wugku- |
| 6. Marengar | a- | mi- | yeri- |  | ma- | muli- |
| 7. Maranunggu | awa- | miya- | yili- |  | wati- | wurku- |
| 7a. Ami | awa- | miya- | yili- |  |  |  |
| 7b. Manda | awa- | miya- | yili- |  |  |  |
| 8. Bungubungu | metjem- | menenj- | win- |  |  |  |
| 8a. Wadjiginj | metjem- | menenj- | win- |  |  |  |
| 9. Ngangigurunggur | a- | mi- | yer- |  | wa- | wur- |
| 9a. Nangomeri | a- | mi- | yer- |  | wa- | wur- |

## 6. MULTIPLE CLASSIFICATION BY SUFFIXATION

### 6.1. Introduction

The languages included in this group are two sets of dialects and languages spoken originally on the Barkly Tablelands, Northern Territory, immediately south of Yanjuwa-Alawa-Mangaray. The languages are Djingili, with Ngarndji on its northern border related to it practically at dialect level (no count has been made), and Wambaya, with Gudandji and Binbinga at dialect level. No full account of any of these has been published. N. Chadwick has given a short account of Djingili and Ngarandj1 (Chadwick 1968, 1971); K.L. Hale has gathered manuscript notes on Wambaya and its relative which remain unpublished, though he has kindly supplied the material for the present purpose.

The characteristic of these languages is that they are multiple class languages, each having four classes, but they act by suffix, not by prefix. There is no personal plural class, but plural is indicated by suffixes, as is also the dual. In this regard they depart from the more northerly MC languages. Moreover, they are also ergative languages, and the ergative markers (or 'operative' as they are called in Chadwick's arrangement) are both suffixal, but differ in form from each other. The operation of the entire system is greatly complicated, at least in Djingili, by a system of retrograde vowel harmony, in 'the vowel of the affix determines the vowel of the stem'. Thus a base wiwi, girl, has a nominative wiwi-ni, Cl. II but ergative wawa-na, because the vowel of the suffix reacts on those of the stem. This type of formation is present also in Waramunga and Waljbiri, and there have apparently been mutual influences at work throughout this area. The CA *lu of the ergative is therefore missing, and is replaced by a *ga/ga which is not CA.

### 6.2. Djingili

The suffixes given by Chadwick (1968:225-6) for Djingili are as follows:

Class I. Predominantly masculine and objects associated with males; also acts as common gender for small fauna:

Nom. -a/-i/-dif/-iji/-r/-!
Erg. -ni/ -da/-!a(*)
Class II. Predominantly feminine - some implements and parts of body; also acts as common gender for small fauna:

Nom. $\quad-n \mathrm{i} /-\mathrm{d} \mathrm{i}$
Erg. -ŋa/-ga/-dga(*)
Class III. Is a general neuter, some implements and parts of the body. All flora, except some fruits and vegetables.

Nom. -u/-i/-a or cons.
Erg. -u/-i/-a or cons.(*)
Class IV. Mostly nouns related to vegetables and fruits but also any rounded or full-shaped object:

Nom. -mi/-bi
Erg. -ma/-ba(*)
It will be seen that there is very little resemblance between these endings and the northern prefixes, except Cl. IV which in the north is $\{-m a\}$, and as will appear later, derives from a CA root *mayi, vegetable food. It is just possible that Djingili mami, food, may derive from *mayi, but one would be right in putting a question mark after it.

### 6.3. Wambaya Group

For Wambaya, K.L. Hale's notes give a picture that is similar but differs in many details. The class suffixes are: I -yi (masculine); II -na (feminine); III - (w) a (inanimate); IV - (u)ma (vegetable). Number is marked in Wambaya by suffixing again to these -wulu for dual (EA) *buladj, two, and for plural -gunjdji (I), -gunja (II), gunjdja (III), -gunjma (IV) as substitutes for the singulars, i.e. singular is $\mathrm{N}+\mathrm{Cl} ., \mathrm{plural}$ is $\mathrm{N}+\mathrm{pl} .+\mathrm{Cl}$. Wambaya demonstratives are a little more complicated. Hale's notes give yini, $I$, this and yiniya, $I$, that. The forms are:
(*) Altered by Chadwick from his 1968 publication and communicated in a private letter to Capell.

```
this: I yini, II ṇana, III yana, IV mama
that: I yiniya, II ṇaniya, III yaniya, IV mamiya
```

The ergative and dative forms of that vary again rather unexpectedly:

| Er | Cl. I ņingiya | II pangiya | III yangiya | IV mangiya |
| :---: | :---: | :---: | :---: | :---: |
| Dat | ninagiya | ganagiya | yanagiya | nag |

The surface appearance of these two sets is that the class markers are prefixed instead of suffixed. It is possible, however, to interpret them as compounds resulting from reduction of formerly free forms to bound forms, with postpositions. This is not the place in which to consider these developments; that belongs to the historical consideration later.

The Gudandji forms given in a second manuscript by Hale are very similar, and so far as can now be ascertained about Binbinga those also fit the same pattern.

A set of examples from Hale's notes will show the concord of the adjective in Wambaya in predicative position in the sentence. There is no space to give a complete set; some examples must be sufficient:

```
yini-gunjdi djanjdjidara maliyimandi?
    these dogs (are) big-ones
yiniya djuwa guridjbiyi
    that man (is) good
yiniya-gunjdji djuwa-damaṇ@̣i guRidjbi-maṇ@i
    those men (are) good
naniya giriya guRidjbi-ṇa
    that woman (is) good
mama ma\etaanjma guRidjbima
this food (is) good
guRidjbi-ma-ḍara mamiya-gunjma mananjma-dara
    good (are) those foods
guRidjba yana baganga
good (is) that cooliba (tree)
guRidjbi-wulu mama-wulu djiga-ma-wula
good (are) those-two yams-two
```

Person in the verb is also involved in the concord, as in

```
mama ma\etaanj-ma gubadja-ma badgu gi-ma
this food little it-fell-down
This little piece of food fell down.
```

The class is marked in the subject only for third person, it does not appear in 3rd person object, which is zero but objects of other persons are indicated by bound forms, e.g. jadbi gi-nja see I-you. Tense is then added after the person forms: djanjini gini-na-ma gudayiba dog it-me-did bite, the dog bit me.

This group of languages completes the MC class. The dual classifying class will be studied next, and it is noticeable that these tend to surround the suffixing MC languages - Mangaray and Alawa to the north, and Wagaya to the south. Map 1 shows that feature.

## 7. DUAL CLASSIFICATION

### 7.1. Introduction

The term dual classification implies that nouns are divided into two classes only. In Europe such types are provided by the Romance languages and by some of the modern Scandinavian languages.

There are three discontinuous areas in which dual classification is found in Australia:

1. The Eastern Kimberley division, athwart the northern half of the Ord River Valley.
2. In Arnhem Land, near the mouth of the Liverpool River on the north coast.
3. Two languages on the south-eastern edge of Arnhem Land.
4. In certain areas of New South Wales.

These are areas in which classification is made by the use of prefixes, as in the MC languages, with the difference that here there are only two classes. Most of these languages operate by suffixation, like their European counterpart, but those on the north and south of Arnhem Land operate by prefixes, like the MC languages, though formally there is little resemblance between the morphemes involved.

Neither in form nor in function do the classes in the dual systems overlap to any great degree. It would seem to be a case of separate development in each area. Historically the problem is considerable, for it does not seem easy to see why such a type - a minority type in Australia - should have developed. In the case of New South Wales it is almost certainly a local evolution.

It is convenient to discuss the prefixing dual languages first, then the suffixing languages. The language of Bathurst and Melville Islands is an isolate; in Arnhem Land there are five languages in which dual classification has been found - two in the north, Gunavidji and Nagara, both on the south of the Liverpool River - Gunavidji on the eastern side and Nagara about Boucault Bay, and two in the south, Alawa on the south of the Roper River and Mangaray farther west, about Elsey Station.

### 7.2. Bathurst and Melville Is lands

The Tiwi language of Bathurst and Melville Islands is formally a dual classifying language, logically it has four classes. Reference may be made to Osborne's The Tiwi Language (Osborne 1974) and only the barest reference will be made here. He states that 'the conceptual scheme which underlies the classification of Tiwi nouns is twodimensional, one dimension having the poles masculine and feminine and the other human and non-human' (p. 51). As actual endings are masculine $\{-n i\}$ and feminine $\{-k a\}$, with a common plural $-w i$, there are formally only two classes to take care of. There is concord of dependent words, including verbal subjects, but verbal objects differ: Osborne says that 'third person-singular direct object is inferred from the absence of a prefix, and gender of such an object (except when it co-occurs with third person-singular subject in past tense verbs) is expressed by means of the tense marker pə- or to-, depending on the tense of the verb' (Osborne 1974:39).

It will be seen that this language differs considerably from the general run of Australian languages in this as in most other regards. The formal agreement of the plural -wi with Northern Kimberley and Arnhem Land biri-, bara- (also suffix -bira in Laragiya) may be only accidental: detailed comparative study of Tiwi has yet to be made.

### 7.3. Nerthern Group

7.3.1. Gunavidji

In Gunavidji there are two class divisions, which may be satisfactorily labelled masculine and feminine. Special forms are found in pronouns of the $3 r d$ person singular, but in all other word classes there is a regular feminine prefix in the singular, $-n j i$, which links with the NK nja-. Gender is not marked in the plural, just as in the Djerag languages. The feminine marker $n j i-1 s$ actually replaced by $n j a-$ in some of the demonstratives. The masculine noun, unlike those of Djerag, does not carry a marker, but in demonstratives there is a marker dji-. Adjectives use $n j i-\sim n j a-$ but not $d j i-$. Examples:


Some adjectival roots are invariable for class, e.g. do:dbalg, good (syn. of madjan). Further examination will probably show that as in the $N K$, it is a question of initial vowel or consonant, and that as in Ngarinjin, etc. only adjectives with initial vowel can take the prefixes. This has not been examined in detail as yet.

The plural marker for both classes is bara-, again comparable to the NK and Djerag biri-. Example: gaRama, woman, plur. bararama-ba.l

Rules of concord are well marked in the following verbless sentences, which represent the contrastive forms used to mark comparisons in Gunavidji:
 this woman (is) that woman (is) short
1.e. this woman is taller than that one. Plural:
barija baraRa:maba bara-ragama:dba; bara-re:ndjea bara-ndeladja
It should be remarked in passing that the 'adjectival' can be verbalised but taking on person markers of all persons as prefiyes. The noun in general does not carry a class marker, and class assignment - 'gender' is grammatical, as in the Romance languages. ${ }^{2}$

### 7.3.2. Nagara

Present study of this language is limited to Capell's investigations in 1941, which have not yet been followed up; but the notes then made suggest that noun classes are two in number, and that dual and plural prefixes are found as well as singulars. Gender appears to be masculine and feminine, each marked, and the gender system is found in the pronoun, adjective and verb: the noun itself bears no marker. As

[^3]far as the evidence goes，gender is＇natural＇，i．e．female creatures are marked as such，otherwise masculine markers are used．An example among the list of nouns shows that in some cases nouns can be marked： yawrin，young man（a word shared with the Gunwinjgu group）＞nja－ wurin，young woman．This is unexpected in that in Gunwinjgu jawurin is monomorphemic；in Nagara its treated as ja－prefix with a stem wurin． In any case the masculine marker is na－，so that＊nawurin would be expected．There are also some other such terms，e．g．galugwona，boy＞ ngalugwona，girl，formed on normal procedures．It is possible that some such procedures are to be found that have been noted in Laragiya， where kinship terms can take prefixes not otherwise used in the language．Capell was given dja：ba，elder brother，but for younger brother dja：ba galugwon（a），which looks like an ad hoc translation by a speaker at a loss－but at least shows the masculine term for boy．

As a rule，however，the noun does not carry a gender marker：the other members of the NP do．So balbal ni－janga，the wind comes is marked as masc．by the verb prefix；リgara go：ga，this water is marked similarly by the adjective，like 刀gaRa nagajara gabulawa，this（is） camp my．

The demonstratives are：

NEAR

|  | Singular | Plural | Singular | Plural |
| :---: | :---: | :---: | :---: | :---: |
| Masc． | gga：Ra | arabuga：Ra | Dgaña | arabugaña |
| Fem． | 力gi：Ra | arabugi：Ra | ngi：ņa | arabugi： |

These have both adjectival and pronominal reference．
In the pronouns three numbers are marked，and gender is shown in the third person of all numbers．The dual involves as an infix the numeral root－gagaRa－，two；the pronouns carry the－ba suffix shared by a number of languages elsewhere in Australia．${ }^{1}$

The third person forms are in Nagara：

|  | Singular | Dual | Plural |
| :--- | :---: | :---: | :--- |
| masc． | na－ga－ba | ba－na－gagaRa－ba | ba－baRa－ba |
| fem． | gi－ga－ba | bara－na－gagaRa－ba | bara－baRa－ba |

This is a fairly complicated formation，and quite peculiar to the language．

[^4]In the verb, person markers are prefixed, and the object is incorporated into a portmanteau prefix. The intransitive masculine prefix in 3rd singular is ni-, the feminine gini- as in ni-yanga, he comes, gini-yanga, she comes. It would seem, however, that the transitive prefix does not distinguish between the two genders. In the dual number there are ba-ni-yanga, masculine, and bara-ni-yanga, feminine, and in the plural bi-ni-yanga, masculine, and bi-ri-ni-yanga, feminine. In these two the feminine marker is clearly -ra-/-ri-. This is of interest in that the usual pluralisers in the MC languages of north Australia have some form of bara-/biri-, regardless of class. There are also changes of prefix for future tense - a contrast of future v. non-future. Capell's examples also include

```
wunagalaya na-ga:ya maladj(a)
```

man brought turtle
and a phrase ginaga:ya nawaRa, translated as he brought the woman, but it is possible that this was a mistake on the informant's part and really means the woman brought it.

The non-singular forms are not quite clear and will not be adduced here. The language needs to be studied afresh while it is still available. It seems to have many peculiarities of its own.

### 7.4. Southern Group

### 7.4.1. Alawa

The Alawa language is spoken on the southern side of the Roper River and has been studied by the writer, and much more thoroughly by M.C. Sharpe. Here also there are two noun classes, a feminine marked by the prefix an-, and a masculine which is unmarked. Mrs Sharpe (Sharpe 1969) says: 'most feminine gender nouns have a feminine gender prefix and denote human beings. The feminine suffix is occasionally dropped from feminine stems. It is always absent from wunaru, sun' and she adds 'this noun is sometimes masculine, as in wunaru mal arala/nala, sun up he/she goes, the sun is rising'. She also adds that in a few instances nouns regarded by English-speakers as nonhuman or inanimate are marked for gender in Alawa, nawanga, totem; anmunamuna, women's corroboree; anyaraman, mare. The last is the only animal name marked for gender, and it is derived from a commonly adopted aboriginal term yaraman, horse, whose origin is apparently not established. Gender is marked in adjectives if they are applied to feminine gender nouns, but not otherwise. Examples from Capell (1942)
include nula waylnma, he is dead; nadula anwaylnma, she is dead. Object forms appear in gun gerenu, I see him; gun gerendiouru, I see her. Here the gender is marked by a change of suffix, but the case 1s not always so simple. A few further examples from Capell: nanana gun djana, did you see my father? angudjaga gun djandanuru, did you see my mother?; paru dul guranana nanaparapa wagar niri, we two saw my father sitting there; jaru dul juraŋaŋuru angudjaga wagar ari, we two saw my mother sitting there.

### 7.4.2. Mangaray

This language, spoken in the region of Elsey Station, to the west of Alawa, shares with it the marking of two genders. The feminine prefix is gala- in this instance, and there is frequently a masculine marker na-. Demonstrative and third person pronouns are not always easy to distinguish. The forms recorded are:
Singular Dual Plural

| 1. Incl. | - | Di: | nala |
| :---: | :---: | :---: | :---: |
| 1. excl. | naya | OiR | gila |
| 2. | njagi | nuR | nula |
| 3. m. | ni (wa) <br> nariwa | garan | gala(riwa) |
| 3. f. | $\begin{aligned} & \text { gi(wa) } \\ & \text { ginariwa } \end{aligned}$ | " | ' |

There is also a set of oblique pronouns, which can be either datives or possessives, but as possessives -gu can be superadded to them.

Demonstratives found in the sentence material to hand seem to point to a 'natural' gender system. Phrases recorded include niwa muyig, that dog; niwa malam, that man; giwa landi, this tree; gi: nugu, this water; ni: garawi, that kangaroo. There is a masculine prefix na- and a feminine prefix nala-: na-wawa, brother; nala-wawa, sister. These do not always appear in sentences: banam, camp (citation) but oila garagwa nabanam nilananiwainji, we were talking in the camp suggests that the prefix acts rather as a definite article. More often a separate demonstrative is used:

Cook me some meat: yalaR naya nandju
meat cook for-me
Don't cook that meat: Dindjag njanaya jalaR giwa
don't you-cook meat that

Whose meat are you cooking?: djagi-najgu ginariwa yalaR ganyanaya who-his that meat you-are-cooking
What is that (mark) on your hand?: djagi-na ginariwa na-गgayma-gan what-it that the-hand-on

In such a case the prefix does not appear: malam, not namalam in:

$$
\begin{aligned}
& \text { nindja bayibub giwa malam? } \\
& \text { who kizled that man? }
\end{aligned}
$$

Nouns in Mangaray can also receive person markers: na-wangidj, I (am) a child, when $I$ was a child, so that the na- prefix may be construed as 3 rd sing. masc. of the verb. Compare:

```
bada-\etaga na-djilig
father-your he-alive Is your father alive?
\etaa-lala-пga nala-djilig
mother-your she-alive Is your mother alive?
```

There is also an example of a reduplicated prefix: na-nangariwa banam, that country in a context, I'm afraid to go to that country. But reversed word order may also produce a full pronoun in final position, as in nafga niwa, it is for you, which may be analysed as na (masc.) nga, your (suffix) followed by the pronoun niwa; it was tobacco, giwa baga, that tobacco. Also of a fish: giwa balgur, that fish - balay giwa, long one it.

As verbal objects, the gender prefixes do not appear in all cases:

$$
\begin{aligned}
& \text { na-yumbub malam gandju } \\
& \text { I-left man mine }=\text { I left my husband. } \\
& \text { nja-yumbub ga-ggadugu } \\
& \text { her-left fem. wife }=\text { He left his wife. }
\end{aligned}
$$

In the absence of a full study of this language fuller notes have been given; they may act as a guide for future investigation.

### 7.5. Dual Classification by Suffixation

### 7.5.1. Languages of East Kimberley

These languages are referred to as the 'Djerag' group, from the verb speak which is commonly djerag amongst these languages. Geographically, they are found chiefly between the Durack Range and the Western Australian border with the Northern Territory, i.e. In the valley of the Ord River, where they are bounded on the north by the sea, and on
the south by the Malngin language, the northernmost member of the Western Desert languages. On the east they are bounded by the MudburaNgarinman languages, also of the wD type.

In the present reference no detail is given on the languages apart from the grammatical features being discussed. They are reckoned usually as Gidja (or Lungga) on the south towards the Fitzroy River, Miriwun, Gadjerong, Guluwarin. They still need more investigation.

As the languages are all fairly closely related, they are simply termed 'Djerag' in the following pages. Most of the examples are given in Gidja, but no matter of principle is involved in the choice of such examples.

Djerag nouns fall into two classes, a masculine and feminine - this nomenclature is recognised by native speakers themselves and so the gender terms may rightly be kept, though they are better not used in the more complicated systems of the Northern Kimberley. With the noun, the adjective and pronoun (including demonstratives) must agree, and the pronoun object of the verb agrees with the noun to which it refers in gender and number. This object is often incorporated into the verb. The typical ending of the masculine noun is the interdental $n$, and for this reason it is hardly necessary to indicate the interdental variety of this sound. Unlike d, it does not occur except at the end of a masculine noun. The feminine nouns are usually indicated by a final 1. In the absence of either distinguishing consonant, the gender must be learned empirically. The change of $n$ to $l$ often shows a change in the sex of the person or animal mentioned: banarin is a male plains turkey, banaril the female of the same species. So with many other words, but relationship terms can only in some instances bs thus changed over, though each ends in its proper gender-consonant. So ga:lil, a woman (Northern Kimberley nali). ${ }^{1}$

In the plural both genders change the ending to -m. The following table (Table 2) shows typical words:

Masculine: singular djilan
winjagin
malambar ga: 1 n

Feminine: singular na:lil ga:ldjal
wanjagil

| plural | djilim | dog |
| :--- | :--- | :--- |
| winjagim | boy |  |
| malba ga: lim | sorcerer |  |

plural na:lim woman
naldjam frog
wanjagim girl
${ }^{1}$ See page 156.

Both genders have a dual number formed by adding warln to the stem: djilawarin, jaliwarln, etc.

The adjective tends to end in the interdental -n, in the masculine, and this changes to -1 in the feminine, but the final vowel of the feminine sometimes undergoes modification also. The plural of both genders ends in -m. The following examples show agreement for both gender and number.

| English | Singular |  | Plural |
| :--- | :--- | :--- | :--- |
|  | masculine feminine |  |  |
| Zarge | naweran | naweril | naweram |
| small | wudon | wudol | wudojm |
| alive | mo:lin | mo:lil | mo:lim |
| bad | gilwangin | gilwangil gilwangim |  |
| good | jilgin | jilgil | jilgim |

As a general rule these agreements are not made when the adjective stands in the predicate; but the rule is not absolute. Thus one does ask:

$$
\begin{array}{r}
\text { gulnalŋa mo:lil? noway, njaninwad. Is your wife alive? } \\
\text { No, she is dead. }
\end{array}
$$

These languages have a concord system that is as strict as that of the multiple-classifying languages of the NK. In Gidja for instance:


The plural prefix biri- is identical with that of NK. Further remarks on this will be made later. The sharing of nali, woman, with these languages has already been noticed.
8. ISOLATED CLASSIFYING LANGUAGES
8.1. East Coast Languages of Queensland and New South Wales

An isolated area of noun classifying languages by suffixation is found on the north-east coast of New South Wales, overlapping into


Map 5: Lenguages of the Central East Coast of Now South Wales

Queensland, from approximately Evans Head to that coast opposite Stradbroke Island, and stretching inland as far as the Dividing Range. This group of dialects forms the Banjalong language. The best known of the dialects is Gidabal, studied by the Geytenbeeks (1971). These students define it as follows: 'at least nine dialects mutually intelligible are still extant.... The names of most of the dialects end in -bal, the ones who say (sometimes spelled -bul ${ }^{l}$ ): Dinggabal those who say dingga, that's right; Galibal, those who say gali, this (in sight); Gidabal, those who say gida, that's right; Ngara:ngbal, those who say nara:, what?; We:lubal, those who say we:lu, you; Wiyabal, those who say wiya, you; Wudjebal, those who say wudje, you; Yugumbe:, those who say yugumbe:, no.' This last dialect has also been studied by Margaret Sharpe (Sharpe 1969) and is also called Yugumbir.

An older, more generalised study, was made by Livingstone for Fraser's edition of Threlkeld's An Australian Language (Threlkeld, Fraser, ed., 1892). There are vocabularies in Curr's The Australian Race and mentions in later authors. In the earlier accounts, such as Livingstone's, the language is called Minyung (what?) and as such is discussed by Schmidt (1919a,b).

Although these languages distinguish four classes, and the neighbouring languages are clearly akin to them, the full system is not found in the others, with one exception: the feminine ending -gan appears in a number of the languages north and west of the Bandjalong group in Queensland. Gabigabi, for instance, is one of these languages. At the end of this section there will be found some discussion of this problem of apparent 'overlap' of systems, for it is not easy to decide whether this is really a remnant of a once more widespread series of classifying languages, or a borrowing from Bandjalong into the neighbouring tongues.

The bulk of the discussion here will be based on the Geytenbeeks' work on Gidabal, and Livingstone's more generalised Minyung. There is no need as a rule to specify the dialect quoted. In Minyung, there are said to be four classes of nouns, a masculine, whose adjective ends in -bin, a feminine using an ending -na-gan, a 'things' class in -njon, and a double set of animates and places using zero marking. For Gidabal the description is more complicated. The adjectival endings are easier to use in this connection. The Geytenbeeks state that with adjectives the endings are optional, with certain limiting cases in

[^5]which they do not occur at all. There are four classes:

| -gail | masculine |
| :--- | :--- |
| -gali, -gan | feminine (normal quality) |
| -gan | weaker quality feminine |
| -Ca:gan | feminine, adjectives of size |
| -Ca:n |  |
| -gay | arboreal |
| neuter |  |

This list differs from Livingstone's considerably. 'Size' adjectives consist of four words only, one of which will serve to illustrate the actual usage, i.e. gamay, big, which shows gamay-gali, big (man); gamay-nja-gan, big (woman); gama-nja:n, big (tree); gamay-gay, big (neuter); gamadi:n-gam, big (plural); gama-nja-ŋbil, big (trees arboreal plural). This system differs considerably from those of the northern languages and is clearly based on different premises from theirs. The marking of plurals by different suffixes is only one point amongst a number. Case endings (including ergative) are added to the first of a set of units in a noun phrase, e.g. the example given, gadan-mir-u bulunj-dju, hard plur.-with clay lumps-with, i.e. with hard clay Zumps.

In Gidabal there are other suffixes with class nouns but not in the same way as these; there is, for instance, -gir, class of, e.g. gawangir, mother's brother class of person; wulbungir, teenage girl class, a teenage girl. This suffix occurs only with human kin terms. Some of the variants in Livingstone's list seem to be accounted for as parts of this system of semantic suffixes, which are disregarded here. Plural number is indicated in Bandjalong in a way quite different from those seen in the northern languages: -man is suffixed to words for boy and girl; djali to words for man and woman, while 'other human status nouns' take -girmam, most other animate nouns either -ne:n or -gara:, trees and a few place words -刀bil, and other place words, some foods and animals -mir. Obviously there are completely different premises behind these languages and those of North Australia. The latter is a relatively homogeneous group, at least in principle; these of the east coast are not historically related to them.

The optional nature of the suffixes is stressed also by Livingstone, who says: 'Adjectives generally agree in termination with the nouns

[^6]they qualify; but it should be noticed that they do not follow any hard and fast rule. The suffix may be dropped from the adjective; more frequently it is dropped from the noun and retained with the adjective; and rarely, when the sentence can be understood without it, it is dropped from them both' (Threlkeld 1892:Appendix p. ll). This, again, is in complete opposition with the North Australian languages. It rather suggests that the historical basis of this system is a number of free forms which have lost status first of all on the phonological level of stress, and then on the semantic level as well.

This suggestion gains strength from the next remarks of Livingstone, 'On the other hand, this rule is carried out to an extent that surprises us. For instance, nubug ${ }^{l}$ and nubuggan ${ }^{1}$ mean husband and wife, but the longer form of nubun-gan is nubun-djar-gan. Now, Kibbin-baia means Kibbin has, and to say Kibbin has a wife would generally be Gibin-baja-gan nubun-djar-gan. Again, bura djin nayabaya mia would mean take the speck out of my eye; where gaya-baya and mia agree in termination, yet mia has the shorter non-life form and gaya-bana has the longer life form'.

It is obvious that a system different from those of North Australia is present here. Firstly, the class markers are stem-final, not steminitial. Secondly, they are often omitted altogether. Again, other suffixes may be added after them, until the whole word pattern becomes one of a not always quite simple agglutination. This last fact suggests that in this area of Australia, the class marking is almost an afterthought, at least, not a true part of the essential structure of the language. There is an unmarked class, that of the general neuter, and this covers a wider semantic field than the corresponding class does in the north. In the northern regions, moreover it is never the neuter class (so far as there is one) that is unmarked. It is therefore to be presumed that class marking is a development of comparatively later date, and that originally these languages did not have it. Some of them developed a feminine, -gan, and this is found in Gabigabi and a few other languages outside Bandjalong. The suggestion is that Bandjalong dialects first become dual classifying, then further distinctions were made. At first there was lack of marking, then females were picked out for marking, and then in Bandjalong alone, further subdivisions were made.

The lack of concord in many instances also suggests a later development of a marking system, which is only imperfectly developed.

[^7]In the neighbouring languages such as Gabigabi and Durabal, there is no concord even when the feminine ending occurs. In Durabal for instance, that man and that woman are wunmal dagay and wunmal djandal respectively, omitting the 'locational' question of where they are in regard to the speaker. In Bandjalong the phrases would be gile baygal and gile:gan dubay.

Again, Bandjalong adjectives display much uncertainty about their form in the sentence. The Geytenbeeks (1971:20) speak of 'quality' adjectives and four - four only - 'size adjectives', which take somewhat different forms of suffix, and both groups subdivide the feminine class, giving the sets previously quoted here. Moreover, individual adjectives have individual idiosyncrasies: gamay, big, has a plural allomorph of the root, gamadi:n, and no other adjective has such. Words for small (bidan) and short (mul) use with masculine reference -galan in preference to -gali without complete rejection of the former. On the semantic level, reduplication of the root is possible: guli-gali, active man, but gulilguli:l-gali, fairly active man. Size adjectives take a feminine -Ca:gan (where $C$ represents a morphophonemically changed consonant) which mul, short and dalgay, dry, share also in Classes III and IV, and the Geytenbeeks describe the difference by '-galigan, Fem. (normal quality) and -gan, Fem. (weaker quality)'. All this makes one feel that the entire system is not really at home in Bandjalong, and is a local development of perhaps relatively late date. This, of course, can only be speculation, but the facts do strongly suggest it, and there is no reason to count these languages as historically part of the 'multiple-classifying' languages of Australia as a whole.

The impression that a local cause has been at work here is strengthened when comparison is made with the Gumbainggar language immediately to the south of Bandjalong. Smythe's grammar (Smythe 1952:156-7) rejects the term 'noun classes' for certain differences in Gumbainggar words, and prefers to speak of 'noun categories', of which, he says, there are nine, marked by endings. Some of these endings are found also in the Geytenbeeks' lists of noun-markers for Bandjalong, and not all of them have been accepted here as 'class' markers. Thus the social 'section' called wirungga has a feminine wir-gan-na; garbungga has gar-gan-na; and in both cases -gan- marks the female members of the class. Other terminations have formal correspondences in Bandjalong but the uses are different. There has been a tendency to 'classify' in these areas but 'noun-classes' as such have generally not developed. In point of fact there are instances of the feminine
ending -gan as far south as Awaba about Lake Macquarie, Newcastle district, but in all instances only on the coastal side of the Dividing Range. Examples are seen in yi'nal, son, yi'nal-gan, daughter; boribay, husband, bori-gan-bay, wide. The suffixed -bay occurs also in biyanbay, father, but is not explained, and the vocative of this is biyan. It does not appear even in the related languages, Darginjung or the remains of the Guringgay language, and this is remarkable, because these are hardly more than dialects of the Awaba. Nor does it appear in Dharug or Iyora (Sydney).

Awaba does contain a system of noun classification that has not hitherto been remarked on. It is both complex and unique in Australia in that it is based on principles different from those found in the other languages, even the Bandjalong group. It is therefore justifiable to deal with it at some length here, and to give the analysis that came to light in the preparation of this paper.

The Awaba system of classification depends on the case suffixes, and comes to light only in the processes of declension. First of all, there are two sets of case endings, one of which is added to proper nouns and to pronouns. The other is common to all other types of nouns, but certain particles are used between stem and suffix which varies according to a system that can only be called noun classification. In this way the surface form of the noun becomes $N+C l+c$, where $N=$ noun, $C l=c l a s s$ and $c=c a s e$. There is no inflection for number in the noun as such. Apart from proper nouns and pronouns, nouns can be dichotomised into those that take the suffixes direct and those that interpose a class marker. The feature of masculine and feminine pronouns was mentioned in the opening section of this paper, and on a superficial view Awaba is simply one of the languages in which a masculine-feminine division is recognised, at least as far as pronouns are concerned. Nouns can be classified into six groups, one of which has a zero marker ( $\phi$ ), but the markers are not permanently attached to one particular noun: a man can'be 'personal animate' and so the marker -gin- is used with the word guRi, man; or he can be a place of origin of an action and then the marker is -ga-. The same facts apply also to pronouns and proper nouns. The lst person singular pronoun naduwa, $I$, has an oblique base emowur: emowun-ga-duwa is by me as, e.g. a place to sit; emowun-gin-birun is from me as a personal source of action; and similarly, guRi-gin-gu, to the man as a person; guRi-ga-gu, to the man as a place reached, 1.e. allative case. Threlkeld (1892) gives as examples: governor-umba-ban, $I$ am the governor's (man); governor-gaygal ban, I belong to the governor's place; muruRan-gu-ba guRi-gu-ba,
belonging to a good man (something unspecified, with but a genitivedative marker -gu [the common Australian form] plus a -ba of location, as in the name Awa-ba, a plain surface with accent on the first syllable). Other suffixes can then be added, e.g. Awa-ba-gal-in-du, Awa-place-inhabitant-feminine-ergative in the normal manner of agglutinative languages.

The above classes can then be formalised as follows:

| Class | Formative |
| :--- | :--- |
| proper noun or <br> pronoun | -um- |
| personal | -gin- |
| animate | $-1 a-$ |
| people or place | - -gal- (masc.) |
|  | -gal-in (fem.) |
| location or time | $-g a y-$ |
| unspecified | $-\phi-$ |

There can be crossing from one to another or combination of two, e.g. bun, today, bun-gay-gal, belonging to today (as though today were the inhabitant of something); jigu-wun-gin-gu, him-of-person-to, to him (allative). The complexities possible cannot be illustrated here.

Case forms themselves also are complicated, and there are numbers of morphophonemic modifications. The ergative starts from -*lu as in most parts of Australia, but takes on forms such as -lu, -(r)u, -gu, -du. The dative -gu can be combined with -ba (place where) to form -guba, 'possessive' and -guwa, 'accompanitive'; -gay is not only used alone but combined as -ga-ba (associative), -ga-birun (ablative), -ga-gu (allative) and other shapes. There is also a -din which is causative but not ergative, while personal nouns use -nun as accusative and dative marker, and -um-ba as possessive. The full analysis of this system will, it is hoped, be published later. Languages north and south of Awaba have not developed such elaborate nominal forms.

## 9. A HISTORICAL VIEW OF NOUN CLASSIFICATION

### 9.1. Introduction

At this point the thoughtful student will ask how the present processes of noun classification in various parts of Australia came about. That question cannot be answered apart from the entire history of language within the Continent, and this is not known. In fact,
time depths considered, it is doubtful whether it can ever be properly answered. What follows is an attempt to reach a logical answer which however, will still lack documentary historical proof.

The present situation is statable as follows: (a) In various parts of Australia there are languages which classify nouns in a number of different ways. (b) These areas are not continuous. It seems, then, either that they developed separately and have no historical connection with each other, or that they developed in one area and spread. (c) In the latter case their present separation is due to subsequent movements of other types of languages, which have broken a formerly continuous sequence. But on the other hand such an argument is not necessary. A similar principle may have come into use discontinuously: there are other examples in the world of such happenings. Each of these theories will be taken into account, though each may not be argued in full.

The present noun classing systems fall into a number of types:

1. Multiple classification, i.e. a number of classes greater than two, and involving concord between the noun and all other parts of the utterance logically dependent upon it.
2. A similar system, but involving only two classes, which can sometimes be regarded as a masculine-feminine division, or a feminine-nonfeminine division, only the feminine being marked.
3. Each of these types of classification may be either prefixal or suffixal. The regions in which each type occurs show no logical determination: the Northern Kimberley languages are multiple-classing by prefixation, the Eastern Kimberley dual-classing by suffixing, while east of these, in Arnhem Land, multiple classifying by prefixation prevails, with an enclave of dual classification by prefixing at two points on the north coast, and multiple classifying by suffix to the south and south-east of the area. There seems to be complete geographical confusion.
4. In coastal New South Wales (with a corner of Queensland) there is multiple classification by suffix, but the actual forms and even the principles of classification do not show any apparent connection with those of North Australia. In the central coastal area of New South Wales there is an example of multiple classification (in Awaba) based on seemingly entirely different root principles as well as different morphemes. Awaba, in fact, seems to be quite disparate and to be local in origin.
5. In the Cape York Peninsula region, there are languages which employ the system here called 'determinatives' to class nouns, and this is a logical, not a linguistic process at all in the strict sense: no morphology is involved, but only fuxaposition of a general and a specific noun. This may actually, in spite of appearances, provide a possible point of origin for the whole principle of classification.

These, then, are the basic facts as they appear today. The problem is now to arrange them historically, if it is possible to do so. At the same time, the identity or otherwise of the actual morphemes marking the various classes, must be considered, as any historical explanation depends finally on such an identity. The occurrence of a ma- (-ma) class almost everywhere - even in northern New South Wales is an example of what is meant here.

In passing, it may be remarked that typological similarities between the Australian MC languages and Bantu are often very noticeable, but the differences in principle must not be overlooked (Capell 1951). The unclassified Burushaski language of north-western India also recalls the Australian types in many regards: but in all these cases there is no morphological overlap, so that historical connection is not to be presumed.

### 9.2. Characteristics of Classification Systems

While there are obviously considerable formal differences in the various systems by which classing is marked, these can be reduced to the undermentioned patterns:

Classification by

| 1. determinatives | preposed | concordant |
| :--- | :--- | :---: |
| 2. deictic formants | or | or |
| 3. determiners | postposed dual | non-concordant |

The term 'determinatives' has been used earlier in this paper; the terms deictic formant and determiners need to be explained; this will come out of the idealised examples below.

The various types of classification can be exemplified by using an English example set in what seem to be the deep structures of the aboriginal expressions used in the various languages. If a type sentence $I$ threw that long spear is set out in terms of the basic expressions lying behind the various aboriginal languages, the following four types will appear:


The symbols used in the diagram are:
$d=$ deictic; prefixed if preceding, suffixed if following;
$F=$ deictic formant, similarly prefixed or suffixed.

It is doubtful whether Type IV occurs in Australia; it is, however, a theoretical possibility which must be allowed for in setting out a pattern. The diagram itself provides for full concord; the languages do not always have such concord, but parts of it are present in almost all cases except those of New South Wales-southern Queensland.

The Djirbal pattern is unique in that only the demonstrative is affected. The possible historical setting of this fact will be dealt with at a later point. For the moment it is enough to set out a diagram of what can happen. When this is correlated with what does happen in various parts of the continent, it will be possible to study also possible historical sequences and developments.

The terms used in abbreviations need a little further definition. Although 'determinatives' were defined in the earliest section of this paper, a little more clarity may perhaps not be out of place. As there stated, the word is derived from the use made of it by Egyptologists and Assyriologists. By them it is applied to the written language, not to the spoken. In Sumerian, for instance the determinatives placed before a sign were actually (in the earliest times) pronounced before it. One writer has compared such a sign with the 'St' used in English before, e.g. 'St Paul' - to signify just which Paul is spoken of. Those instanced in the Cape York languages are all of this kind, and so it seems a suitable term for such compounded words as were illustrated above from those languages. The use of determinatives of this kind involves no grammatical concord. If, however, they are to be regarded as precursors of the prefixal concordmarkers in other languages, it would be necessary to assume a period in which the determinative actually was repeated aloud before each
element of the utterance. There is no evidence whatever for this, so that determinatives must rather be looked upon as sui generis and not as a historical part of the multiple-class developments. They would be more closely akin to the suffixed determiners used in the Bandjalong and Awaba types of language, e.g. Awaba emowumba-gin-gu, my person-to, to me; emowumba-ga-gu, my place-to, to me.

This interpretation would then serve to set off the Cape York languages from the others, connecting them possibly with those of eastern New South Wales. This is possible, because there is considerable lexical agreement between the two groups - a feature which does not come out in the present paper.

On the other hand, there has clearly been usage of the determinative type elsewhere than in Cape York - but of deictics, not of noun forms, for the whole 'concord' principle in Australia seems to rest on the use of deictic determinatives before (or after) each item to which the idea applies, and the multiple-classifying language seems to have come into being through some such process.

### 9.3. Stages in the Development of Class Marking

This is an instance where internal reconstruction is the only means available to establish the history of a phenomenon. The outcome of such an internal examination points to classification of nouns as a relatively late phenomenon, and to the development of concord as later still.

In ergative languages, the class marker tends to be declined as a separate element from the marker, 1.e. in such a language as Yanjuwa, the vowel of the marker assumes an ergative case form as does the noun stem. This implies that the ergative process was already functioning when noun classification appeared. Noun classification is therefore historically later than ergativity, and as this seems to be later than non-ergavity, the historical sequence must be: non-ergative : ergative : classification. This applies, of course, only to classification of nouns; that of verbs is an independent occurrence.

Another fact that suggests that classification is relatively late, is that $C A$ roots have been involved in the process, and these represent a secondary stratum of Australian language. For example, in the Northern Kimberley languages, the root for man, CA *badur has developed into bendjin in the north (endjin in one area), plural bir-endjin. In the south, Ngarinjin has developed aRu, a later formation. In the northern languages, the Cl. I prefix is b-, while in Ngarinjin it is a-. The relative sequences are clear. In both cases, Cl. III prefix

GROUP OR STAGE: A. No recognition of Gender or Class.
B. Masc./fem. (a) pronoun only, (b) NP also.
C. Classification-concord System.

## c. CLASSIPICATORY LANGUAGES

MORPHEMES EMPLOYED

| $\text { Masc. } P$ | $\begin{aligned} & \text { R S } \quad 0 \\ & \text { Fem. } \end{aligned}$ | $\begin{aligned} & \text { N S } \\ & \text { P1. } \end{aligned}$ | D1. | Animal | Instr. | Gen. | Veg. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| b- $--\overline{a-}, \bar{i}-$ | nJa- | $\begin{aligned} & \text {-bira- } \\ & - \text { biri- } \end{aligned}$ | - - | ${ }^{a-}-$ | $\begin{aligned} & n-, d- \\ & (d-) \end{aligned}$ | - | - - |
| (b-) | nja- |  |  |  |  |  |  |
|  | nadj- |  |  |  |  |  |  |
| na/ni- | gal- | biri- | blnl- |  |  | wu- | -ma |
| na= | garu-d- | wara- | wuna- | $a / R a-$ | y ${ }^{\text {- }}$ |  |  |
| n- |  | b- |  | a- |  |  |  |
| nja- | ra- | 11 - | r1- | (na-) | ( $n$ aņu-) |  |  |
| di- | nJa- | wiri- |  |  |  | nal |  |
| yl- |  |  |  |  |  | wu- |  |

Human: b(a)-; body parts: ar-; genital: gun-; trees: gu(r)-; food: (a) meat $n] a-$, (b) starch mun-.

| Class | Djingill |  | Wambaya Nominative |
| :---: | :---: | :---: | :---: |
|  | Nominative | Ergative |  |
| I | -a, -i, -r, -! | -ņa, -da, -!a | -yl -yi |
| II | -nit, -da | -п., -ga, ¢ga | -ņa -ņa |
| III | -u, -1, -a, -c | -u, -i-, -a, -c | - $(\mathrm{w})$ a |
| IV | -mi, -bl | -ma, -ba | -(u) ma |


| BANDJALONO : | $\begin{aligned} & \text {-gall } \\ & \text {-gall-gan } \\ & \text {-gan } \\ & \text {-ca:gan } \\ & \text {-ca:n } \\ & \text {-gay } \end{aligned}$ | ```masculine feminine (normal) feminine (lesser) feminine, adjectives of size arboreal neuter``` |
| :---: | :---: | :---: |
| AWABA: | $\begin{aligned} & \text {-um- } \\ & \text {-gin- } \\ & - \text {-la- } \\ & \text {-gal }(1: n) \\ & \text {-gay } \\ & -\phi^{-} \end{aligned}$ | proper noun and pronoun <br> personal <br> an1mate <br> people of place (m and $f$ ) <br> place or time <br> unspecif1ed |

Demonstratives only: masc. -yi; fem. -n; veg. -m; neutral -

| Language | Masc. | Fem. | Plural |
| :---: | :---: | :---: | :---: |
| (Gunavidjı | $\phi$ - | nja-, nju- | biri-, bara- |
| Nagara | $\phi-$ | nja- | ¢- |
| A Alawa | $\phi$ - | an- | y11- |
| Mangaray | n1- | na(la) - |  |
| T1w1 | -nl | -ga | -w 1 |
| East K1mberley | -n | -1 | -m |

s
is blr-, giving FR bir-endjin but Ngar. irregularly bur-uRu. The NK languages were in essentials developed (without classification, presumably) when the change of structure came about.

Again, where $C A$ words appear in the classifying languages - in many the percentage is rather low - they are not always treated the same way as regards classification. The same applies to widespread EA words occurring in these northern languages. For example, *maRa, eye, Zight, seems to be at the base of Worora maRa-ma, Zight; Ngarinjin maRa. These are Cl. V, as though the stem were *ma-Ra. Worora has suffixed the marker: ma-Ra-ma, as though the initial ma- of Cl. V had been mistakenly supposed to be present in a non-root *-Ra-> *ma-Ra-ma. Ngarinjin does not suffix markers, so the base remains maRa > *ma-Ra. In Laragiya, however, the base was classed differently, giving da-maRa, eye. Even local roots are sometimes treated in a similar way. A word common in the Fitzroy Basin, djiridj, magpie Zark, has been borrowed into Laragiya as djirjdjiridba, Cl. I as non-human animate. In some cases, transference of idea may take place without change of class where it might well be expected, e.g. Laragiya da-mbar-gwa, (l) tooth; (2) knife edge.

### 9.3.1. The Free Forms called Determinatives

It needs no argument to suggest that the earliest type of classification in Australia is represented in the free forms, generic nouns preceding specific nouns, which have been called above 'determinatives'. Such a device for classing nouns is by no means limited to Australia. It is very widely used in the languages of South East Asia, to mention only one group. So it will be taken for granted here that such a practice represents the first stage of classification in Australia, so far as historical processes can be established at the present time. The historical problem is how to account for the transition from determinatives to determiners.

The Daly River languages (5.5. above) are the first to be considered in this setting.

The probable stage of development from the use of determinatives is presented by the main bulk of these languages, which use class markers before the noun - with some exceptions - and these are in most cases actually identical with the independent nouns. As one uses the Cape York $N+N$, so does one in this area of the Daly River. The pattern then becomes:
spear long that I threw
wood-spear wood-that wood-long I threw

The languages which are not of this type are the small dialect group Nos. 4, 4a, 5 and 6 in Table I. In these another principle appears which will be discussed below.

The analysis of this Table (Table 3) is as follows:
Table 3

| Class | Marker | Root in individual languages |
| :---: | :---: | :---: |
| 2 | te, awam matjem pinja | meat: te, awu, metjem, pinja |
| 3 | miyi | vegetable food: miyi |
| 4 | tjön, yili | tree: tjön, tjuru |
| 5 | tar | tree: tawur (groups 4-7b) |
| 6 | wati, ma, wa | forms of CA *badui, man. See below. |
| 7 | gungu, wur | (unidentified) |
| 8 | wu | wuwu, $\operatorname{dog}$ in 9 and 9a |

As this list stands, therefore, it is just a case of putting a noun of general meaning before a noun of specific meaning, but with the difference that the first $N$ is beginning to exhibit phonetic changes, and that not all belong to precisely the same language.

The forms in No. 6 for man are more remarkable. They just do not belong to the series: *badun is part of the WD languages, and its usual modern form there is wadi. That is to say, that the Mara- languages are beginning to show true class prefixes, and these are derived from outside the Daly River area.

These Daly River languages thus show a clear step towards the development of class marking by prefix. At the moment, this is a typological matter, not a historical one. Whether it can also be read as historical remains still to be proved or disproved.

The matter of concord becomes of interest at this point, for one of the features of MC languages is usually a more or less elaborate concord between the noun and its dependent elements. But this is not always the case.

Tryon summarises the Daly River languages as follows:

|  | Classes | Concord: Poss. Adj. |  |
| :---: | :---: | :---: | :---: | :---: |
| Mulluk Group: |  |  |  |
| Mulluk subgroup | 4 |  |  |
| Daly subgroup | 4 | - | + |
| Brinken-Wogadj Group: |  |  |  |
| Brinken |  | + | + |
| Maranunggu | 7 | - | - |
| Wogadj | 6 | - | - |
| Djemeri Group | 4 | + | + |

See Tryon 1974:294, and the whole paper for details. It is clear that there is no original unity in these languages as regards anything more than the fact that nouns are classed.

The further problem, of the interconnection of the morphemes used in various languages to mark noun classes, depends on the possibility of identifying the markers and providing at least feasible original meanings for them. Can this be done?

The Table following (Table 4) shows the actual prefixes occurring in the different language groups. It should be noted at this stage, that in some cases, prefixes occur in one language with a certain set of nouns - a limited set only - which are not normal components of the language as a whole. Laragiya kinship terms sometimes distinguish sex by the use of prefixes $n \boldsymbol{i}$ - and nal-for males and females respectively, but as normal markers of sex these are found only in the Gunwinjgu group, while Laragiya usually does not distinguish sex but uses a prefix b-for animate, like the $m(u)$ - of the African Bantu languages.

In Laragiya, son (m.s.) is ni-marg, daughter nal-marg; nu-wag is younger brother, while gal-ag is younger sister (-w- being simply a glide); nu-gunji, sister's son (m.s.), and gal-gunji, sister's daughter. This can hardly be accidental. Moreover, in Gunwinjgu, only monosyllabic nouns appear to take the masculine prefix at all (e.g. bininj, man, rather than na-binin, as against gun-djem, tooth). What the exact history in these phenomena is lies outside the present scope and perhaps even possibility of knowing, but the facts need to be borne in mind.

### 9.3.2. The History of the 'Determiners'

It is presumable that these forms here called 'determiners' began life as free forms. It might appear that they, being descriptives, would have a closer connection with deictics than with other categories, but the most clearly distinguishable of them, $-m$ or $m$, for vegetable food, points back to a noun, *mayi which in various shapes is still in use. Certainly deictics were used, and in some languages their influence is very clear, so that must be rejected out of hand. It can still be assumed that as a rule, suffixed markers represent an older word order $N+D, i . e$. noun follows deictic, and prefixed markers and order $D+N$, i.e. deictic followed by noun. What then of the reduplicated forms, simultaneous prefix and suffix of some language, built on the pattern det $+N+$ det? This double ordering seems to point back to an ordering of the deictic for which there is very little evidence anywhere in Australia. It would seem to entail some original mistake. The commonest occurrence of deictics in normal Australian languages is after the noun. This would suggest that the $N+N$ is the older pattern, leading to suffixed determiners when this stage was reached. When the further stage was reached that origin of the determiners had been forgotten (as, e.g. the fact that $-m$ or $m$ - stood for *mayi) and emphasis was needed as against generalisation, then the determiner began to be repeated for emphasis after the noun, through a probably brief stage when the deictic, in its required class, was used before the noun, in its required class marked by suffix. This is the intention behind the diagrammatisation as Type IV, *this-F spear-F Zong-one-F this-F, in formula

$$
(d)+[N+F]+[A+F][d+F]
$$

It may be suitable to take Djirbal as a starting point (without any historical implications). Here there is distinction between male and female (the latter including other items which probably have mythological connections), vegetable foods (-m) and a general group including all other items, marked by $\phi$. This zero class belongs to a time when classing was not practised at all in Djirbal; the distinctive markers belong to the period in which classing took place. The male class received most distinction (as might be expected in an Aboriginal society), and the root forms of the marker were changed, the second syllable being lost, and a substitution made for it. This substitution was -yi, which itself appears as a masculine marker in one area of Arnhem Land. The vegetable food was marked by -m which clearly represents *mayi, and points back to the system of determinatives
already discussed. The marking by $-n$ takes in the feminine and other groups that seem to be interrelated. The three distance markers work on similar lines and may be tabulated as:

$$
\begin{aligned}
& \text { bala } \rightarrow \text { ba(la)yi-bala-n - bala-m } \\
& \text { ginja } \rightarrow \text { gi(nja)yi-ginja-n -ginja-m } \\
& \text { gala } \rightarrow \text { ga(la)yi-gala-n }- \text { gala-m }
\end{aligned}
$$

These sets then present a consistent pattern. They began with distinction between masculine and feminine (a dual classification) as against all others, which were zero-marked (bala-, ginja-, gala-). Next for this language came a setting apart of vegetable foods, marked by the initial $m$ - of *mayi.

Although this is a purely logical analysis, it may suggest itself as very likely also a historical analysis of the development which took place in this part of Australia. Is it possible that similar states of development are represented by the other languages as well, i.e. that dual classification preceded multiple and that multiple classification came last of all?

These suggestions need testing against the languages. Do any of the other groups suggest a similar development from zero classing, through dual, to multiple, the latter capable of indefinite expansion (if the languages had chosen to carry on such subdivision as it was carried on, for instance, outside Australia, in Nauru and Bougainville, to mention only two)?

The answer seems to be only a very limited assent. In the Eastorn Kimberley languages it is a negative answer, for these have a masculine ending -n, a reminine -l, with a common plural -m. The marking of a plural is unusual in Australia. The multiple classifying languages mark a plural only for rational animates, and usually it is a form of -biri. Research published elsewhere ${ }^{l}$ shows that a plural in $-r(a)$ is characteristic of certain areas in Australian pronouns, and has nothing to do with the formations now under study. The -*birl or *bira forms, whether prefixed or suffixed, can be ruled out; those in -m have no parallel elsewhere at all. The Tiwi language has masculine -ni (which fits another pattern, but not the Djirbal), feminine -ga, also different, and plural -wi, which belongs to the -*bira tradition. The answer would seem to be that the Djirbal series is not a universal model, even as a theoretical reconstruction, let alone a historical
${ }^{1}$ See general paper on the Australian languages in this volume.
precedent. Yet the vegetable class in -m < *mayl does stand. It is needful, then, to look for correlates to the other common class forms. Table 4 presents the commonest markers of the various classes found in MC languages. They appear to have originated in a number of centres, not in any one, and represent the clothing of a principle in forms which differed from region to region.

If it is true that -m, $m$ - stands for *mayi, were all the prefixes/ suffixes originally independent semantemes? This is not easy to prove, because there is so much variety among them, and at the best they could have been only of local validity. It has appeared that the EA root *badur, man, can account for the Cl. I prefix b in Laragiya and becoming *aRu and also *aRi in Ngarinjin, for the Cl. I a- of that language. In Worora the prefix i- could easily point back to indja *badun in precisely the same way.

### 9.3.3. Stages of Noun-classing

Certain features of some of the languages involved in the present study suggest that what are now bound prefixes were once free forms preceding the noun. Yanjuwa (5.3.1.) is one of the languages in which this feature is clearest, for in Yanjuwa the class prefix to the noun varies for case. A prefix whose vowel is -a- changes this to -u-in the ergative form, while still adding the ergative suffix -*lu to the noun as well. It is clear that the prefix was only a free form preceding the noun, and that it agreed in case with the noun to which it belonged. Thus Kirton (1971:39) gives the prefix sets:

Table 4

|  | Class 5 | Class 6 | Class 7 |
| :--- | :--- | :--- | :--- |
| nuclear | ma- | na- | naṇu- |
| referent | mu- | nu- | nuwaṇu- |
| directive/accessory | muøgu- | nuøgu- | nupgaṇu- |

as specimens of prefix changes, the corresponding suffixes to the same nouns being $-\phi,-w u,-l u /-1 a \operatorname{respectively.~Uses~such~as~these~suggest~}$ very clearly an original independence of what are now prefixes.

If it is now asked, what free forms would originally have stood before the nouns, the answer is either an article or a demonstrative.

Of these two, for Australian languages the demonstrative is the more likely choice. So the theory accepted here is that the present class markers in the languages that now prefix them were originally demonstratives preceding the noun.

Yet some of the languages suffix class markers. This would suggest that in the earlier stages of these languages the demonstratives followed their nouns. Given the originally rather free word order of Australien languages - still preserved in many of them - there is no difficulty in this suggestion. There is therefore no difference in principle between the prefixing and the suffixing of class markers. Details will have to be discussed infra in regard to individual languages and forms, but the principle is hardly controvertible.

There are languages in which the class markers are simultaneously prefixed and suffixed. These would seem to point back to the expression of the demonstrative both before and after the noun. This is less to be expected, but there are indications to be discussed later that some such process actually did take place. The phenomenon of 'class crossing' seems to point in this direction. Laragiya is one of the languages in which such events can take place, and Mawng is another.

Can anything be said about the forms of the demonstratives that were originally used? Their forms and their nature need to be studied together, because form and meaning naturally go together: if there is no meaning to be expressed no form is needed. The first question will then be: what noun classes are 'original' in a given area; then where did they come from? What are the principles of classification at work? The forms will naturally follow the meanings they are intended to express. Some of the languages give clearer indications than others. The Daly River languages are 'primative' in this sense and in some cases it is easy to see that the class prefix is an abbreviation of an independent noun. The Cl. V prefix ma- which generally refers to vegetable foods (amongst other things), is clearly linkable with the root *mayi, vegetable food. Its application to such things in the abbreviated form of a prefix or suffix is reasonable: the only problem arises as to the 'other things' subsumed into such a class.

It is desirable to make distinction between classifying languages as such and gender marking languages. In the former there is no differentiation of masculine and feminine: one prefix marks human beings of either sex. Bantu languages are classifying in this sense. In Australia such languages are limited to the extreme north of the Northern Kimberley district and to Laragiya; all other languages are gender languages: Lamalama, Djirbal, the east coast languages, all the dual classifying languages.

It is suggested that dual classification represents the earliest stage of the process under study. Beginning as demarking sex of living beings, it subsumes finally all existence under one of the two groups. It is a sort of linguistic dual organisation. Schmidt, following the Culture Circle philosophy, tried to work out links between such social phenomena and linguistic phenomena. There is no intention here to do such a thing: on the contrary, the areas of dual organisation in society and in language do not coincide. Actually two different discussions have to go on side by side; one is concerned with the principles of classification in a language, the other the formal means by which the classification is made. Multiple classifying languages and dual classifying languages may both be either prefixing or suffixing.

Masculine and feminine distinctions are the chief marks of the DC languages, especially those which suffix. In some cases these are 'natural', i.e. males are masculine, females are feminine; in others they are 'grammatical' as in Romance languages in Europe. This is another crossing of principles which occurs in apparent irregularity in Australia. Even in DC languages in which classing is grammatical, there is no necessary agreement in the morphemes used for each marker.

Other types of distinctions than $M$ and $F$ seem clearly to have begun by the marking of a non-human/human, rather, perhaps than inanimate/ animate, because the assignment of the non-human animates still presents much variety in the various languages. The non-human will include the animals. The latter are marked in CY by the determinative min, where as the inanimate marker *may is not only CY but universal wherever such marking takes place at all. Obviously food was a first necessity: *may is the most important concept in Aboriginal - or any life. So the beginnings of a four-class system appear: masculine, feminine, food, remainder. In some cases it was a three-class system that developed: human, animal, remainder.

Let the remainder first be called 'neuter', without implying that this means 'lifeless'. Neuter might be subclassified, and in Arnhem Land this took place in a number of ways, varying from region to region. In one area tools were picked out for special mention, as in Forrest River, where $n$ - became the marker for artifacts of human origin and, indeed, in the case of wana, honey, insect manufacture, but of high value to man. In another region reference to the earth was picked out for marking, as in Mawng and the Gunwinjgu group, Rose River and Groote Eylandt. All these less common cases are scattered.

The animal world would probably be classified first according to the sex of the animal. This was usually done by separate words for each, as items in a landscape, not by any theoretical taxonomy. Such taxonomy, when it occurred implied contact, knowledge and a certain special importance. In Forrest River a became the sign of the animal class, which was regarded as indeed animate, but not human. In this class the clearly animate spirit world was included for that also is non-human. So a spirit (FR djuwari) came to take the a- concord: djuwari a njinga, this spirit. The same thing happened in some Bantu languages. The prefix a seems to be an abraded form of $R a-$ of the $S E$ languages (Nunggubuyu and Anindiljawgwa).

The chief difficulty that arises in connection with noun class prefixes is not the variety of morphemes, but the variety in the semantic fields which they denote. It is more than possible that the latter variety arises from the falling together of originally separate prefixes into homonyms through phonetic or other types of change during the lifetimes of the languages. One outstanding example of this is the prefix ma-.

This prefix is the only one which occurs in all the languages under consideration, without exception. Reference to the Table (5) will show that it is universal. But its semantic field is not the same in all. Generally it refers to vegetable food, but in parts of Arnhem Land and the north in general it refers to ground or water - in some cases to objects connected with ground or water, in others only to objects connnected with the water. The former subgroup is exemplified in the Gunwinjgu group, the latter in the Rose River-Groote Eylandt group. The fact that in the Gunwinjgu group the prefix can in certain cases be man- instead of ma- is also worth noting.

Where ma- refers to foodstuffs, it can be traced to *mayi, vegetable food. But this does apply to cases such as Nungguburu ma-Rajag, canoe (as compared with a-Ragag, tree, wood). It is in these cases that the alternative man- seems to occur, as in Gunwinjgu man-gabo, a creek. There could then be an alternative root *man- to be traced - but for the fact that Gunwinjgu man-me is vegetable food. Harris (1969:17-18) says for Gunbalang that 'ma- occurs before retroflexed 'C', before 'C' followed by $u, o, a l s o ~ b e f o r e ~ w, ~ y ; ~ m a n-~ o c c u r s ~ e l s e w h e r e, ~ t h e ~ n ~ c o n-~$ forming to initial nasal 'C' of stem'. However, her examples are ma-wayag, shadow, and man-dulum, mountain, neither of which refers to either food or water! Actually both are atypical references.

In Laycock's Lamalama there is a prefix mun- referring to starch foods such as mun-arem, lizy root. It is interesting that he quotes
certain of his informants as translating these into English with a maya- prefix to the English word: maya-lily, etc. This means that they did not distinguish two groups, mun- (or man-) and maya (or mayi-). It would perhaps be possible that water plant and water itself have caused a cross between the two forms and meanings here.

### 9.3.4. Syntactic Factors in the Development

Two types of syntactic influence are seen in the development of the class markers which work by prefixation. The first has already been referred to: an ergative language tends to mark this factor in the changing shape of its prefixes for ergative and sometimes other cases. This means that the determiners now prefixed were once free forms up to the time of the advent of ergativity into the languages. The most notable case of this is seen in Yanjuwa as described above (5.3.1.), for in Yanjuwa a class prefix may take on three forms. Kirton (1971:39) gives the prefix sets, of which three classes exhibit the following forms:

Table 5

|  | Class 5 | Class 6 | Class 7 |
| :--- | :--- | :--- | :--- |
| nuclear | ma- | na- | naṇu- |
| referent | mu- | nu- | nuwaṇu- |
| directive/accessory | mungu- | nungu- | nungaṇu- |

The names of the cases are hers, and their meaning does not matter at the moment. At the same time the nouns themselves take as case affixes $-\phi$, -wu and -1i/-la respectively.

That these markers were then free forms preceding the noun is clear. What would they have been? Either articles or demonstratives would be likely to occupy such a position. For Australian languages a demonstrative is the more likely choice. So the theory here accepted is that the present class markers began life in the present prefixing languages as demonstratives preceding the noun. This does not rule out the possibility that they were earlier nouns - determinatives later reduced to demonstrative function. This is precisely what the determinatives in CY and Daly languages are doing now. As nouns they are secondary, of only general meaning. It has been shown earlier how the process of degradation is suggested by the present-day uses in Djirbal.

Another syntactic problem, however, arises from the fact that some languages are suffixing. This would suggest that at some stage the embryo class markers - nouns becoming demonstratives - followed the radical noun. Given the originally free word order of Australian languages - still preserved in many of them - there is no difficulty in this suggestion. The case of simultaneous prefix and suffix $(p+R+s)$ is a little more difficult, but the suggestion made above that this represents a more or less 'cockney' emphasis being given to the noun by the repetition of the determinative still seems reasonable. A case could be made out for suffixing being earlier than prefixing, and the example given in Djirbal of a hypothetical *bala-m mayi gunbaRa points in this direction. This will account for suffixing (bala-m *bala mayi) and *mayi gununbaRa for prefixation. The not uncommon linguistic phenomenon of contamination can account for doubling in reverse order. There is the possibility of a demonstrative being repeated after the noun as well as being used before it: in Djirbal terms, *mayi gununbaRa - mayi, as was mentioned above. It is possible and no decision can be made between the two processes, in view of the absence of diachronic material. The double process is commonest in the NK area: Worora and Unggumi both show instances of it on a considerable scale.

The resultant arrangement in terms of number of classes per language and their types and remarks on them appears in Table 6. The 'types' referred to are those of the theoretical English example used in 9.2. The added Type 5 consists of the determinatives in the Daly languages.

The preceding section has dealt chiefly with prefixation. But there is also suffixation, and suffixation is the most usual grammatical process in Australian languages. The smaller group of prefixing languages does not seem to represent a genetic subdivision but something developed apart, based finally on syntactic factors. The suffixing class languages seem to belong to another movement of language, from different areas or times - or both. Many of its members have a considerable share of the CA vocabulary and some kind of EA vocabulary too, but the two contents together seem to be small, and much of the word-store of such languages seems to beidiosyncractic. In general, as remarked at the very beginning of this paper, Australian languages do not distinguish between male and female beings, much less show a division into grammatical masculine and feminine like the Romance languages. Where they do, the feminine is the marked class and the masculine unmarked.

The base type in Australia is therefore a language in which neither gender nor class is marked and where the oldest pronouns are singular only. Number marking seems to have come later, and there is more agreement about a dual indicator (usually *buladj, two) than about a plural. A trial is least uncommon, though not absent.

The first deviation in morphology from this type is the marking of the feminine third person singular pronoun. These have been discussed in (9.3.2.) above. The distinction is not always made in other than the singular number, even at this stage.

Number seems to have been left undefined at first. It will be suggested elsewhere that in Australian languages (as also apparently in Tasmanian), only singular pronouns at first existed - plural, dual and in some places trial (or paucal) were built up differently in different areas and at different times. There is a clear dichotomy between languages which mark a plural (or dual) by suffix, like other classes, and those that differentiate number from class by using a suffix for dual and plural number, even though it may be morphologically the same as the class prefix, biri- or -bira, apparently originally *bara.

In nearly every case number indication is limited to humans. A noun of the animate class does not mark plural unless it belongs to the subclass animate-human: man and woman can be pluralised but dog (if in this class) or spear (1f $\mathrm{Cl} . \mathrm{I}, \mathrm{as} 1 \mathrm{t}$ often is) cannot.

Present day classing seems almost chaotic, apart from these very broad outlines. It cannot be thought that this has always been the case. Mythology has played a part: generally sun is feminine and moon is masculine because in Aboriginal mythology these are respectively woman and man. There are exceptions to this, e.g. Forrest River, where sun is Cl. VI ( $n-$ ) like a manufactured article. Association also has played a part; frequently spear is masculine because it is the man's weapon; wommera, spear-thrower is the servant of the spear as woman is of the man, and so it becomes feminine. Remarks by J.R.B. Love in this connection among the Worora are enlightening (Love 1936: 44 ff. ); on pp. 44-5 he has an interesting note on the assignment of classes to introduced objects, and the motives that lead to such an assignment. Phonology has also most probably played a part.

The idea of concord needs historical explanation also if such can be found. So do the forms of the concord markers, which are not always identical with those of the noun. The idea itself most likely sprang from an attempt to define references, and there is evidence that at first the markers used in concord were free forms. This is especially

Table 6: Classes found in Australian Languages

| Language | Type | Classes | Remarks |
| :---: | :---: | :---: | :---: |
| Northern Kimberley as a whole | 3 | 4-6 |  |
| Arnhem Land - |  |  |  |
| North: Laragiya | 3 | 5 |  |
| Gagadju | 3 | 5 | sex in verb, etc. |
| Urningangg ) Mangeri | 3 | 4 |  |
| Gunwinjgu Group | 3 | 5-6 |  |
| South: Nunggubuyu | 3 | 8 | defin. and indefin. forms |
| Anindilyawgwa | 3 | 8 | defin. and indefin. forms |
| Wandarang | 3 | 5 |  |
| Ngandi | 3 | 6 |  |
| Ngalagan | 3 | 4 |  |
| Yanjuwa | 3 | 7* | many local complications |
| Barkly Tablelands |  |  |  |
| Djingili | 4 | 4* |  |
| Wambaya, etc. | 4 | 4* |  |
| Daly River |  |  |  |
| Mulluk Group | 5 | 4 | adjs. are verbalised |
| Brinken-Wogadj | 5 | 4-7 | adjs. are verbalised |
| South-West Isolates |  |  |  |
| Nungali | 3 | 5 |  |
| Wardaman | 3 | 3 | only partial concords |
| Dual Classifying |  |  |  |
| Tiwi | 4 | 2 |  |
| Gunavidji | 3 | 2 | verb excluded from concord |
| Nagara | 3 | 2 |  |
| Alawa | 3 | 2 |  |
| Mangaray | 3 | 2 |  |
| East Kimberley | 4 | 2 | concord throughout |
| East Coast |  |  |  |
| Bandjalong | 4 | 4* |  |
| Awaba | 4 | 6* | different system at base |

[^8]noticeable in Yanjuwa, where the class prefix changes to mark the case of the noun. Incidentally, this serves to suggest that class marking was later than the development of an ergative case, for this case shows itself in the prefixed class marker.

From the grammatical point of view, NCs are syntactic features rather than morphological, and the variation in number of classes and details of concord may be syntactic phenomena as much as semantic. They are attempts to connect in the speaker's mind the ideas that belong together. They are not elaborations which try to picture increasing details of thought on the speaker's part. Hence it is quite possible that the variations found throughout Australia may be often of - so to speak - local manufacture. This truth would certainly apply to the distinctions of local forms in pronouns and demonstratives: similar processes have taken place in the Scandinavian languages though not in German or English.

For these reasons it may not be possible to do more than fix certain broad outlines of probable development - in the absence of diachronic information - which may show how the existing situations have come about psychologically rather than in terms of historical linguistics. It thus seems very likely that determinatives represent an early manner of gaining clarity of references in Australia, as in the Middle East; but there is no necessary connection between their appearance in the Cape York and about the Daly River. A distinction of two genders can well have developed in more than one area: the diversity of markers suggests this may be so.

Multiple classification is rather different. There are signs of a common origin of this process in the frequent agreement of morphemes marking the classes. But there is no reason to suggest that this was a spread from one centre at one time (more or less), as seems to be the case in the spread of $C A$ languages, including perhaps the ergative case. Even here some of the ergative suffixes stand apart from the *-lu series and must be historically independent of it. The MC languages agree only partially in the distinctions they make. One may suppose transfer of a very few determinatives to the rank of determiners at first - the most outstanding features of landscape and the most important needs of human life will have affected the development. There would be a distinction between human and non-human; then within the non-human, between animate and inanimate. The relative importance of items of the non-human world will have had an effect - food and water for living, and among foods, animals of chase and other kinds of animal, and non-animal elements of the surroundings. Instruments and
tools may well be set apart, as they are in some languages. Frequently the non-human groups seem to be regarded primarily from point of origin - earth, water, etc. Body parts are so irregularly classified that they do not seem to belong to early strata, except in rare cases such as Lamalama, where they have their own prefix (-ar), and even then they are not grouped under it. In Lamalama, Laycock's 'genital' class seems to be a further refinement of the body parts class - and so on to varying degrees. This applied equally well to the Bandjalong type on the east coast, while the Awaba classing seems to be primarily social and not a classification of nature at all.

### 9.4. The East Coast Classifying Languages

The languages referred to here are Bandjalong and Awaba, and incidentally a number of languages apparently related to these but lacking classificatory systems. These languages are not only historically quite distinct from those of the north and north-west, but they have used different original materials to construct their systems. The main distinctive feature is a masculine classifier -gali, -gal, and a feminine -gali:n. These two are found in the Sydney language (generally called Iyora for lack of a true name).

This is an important and interesting early EA word. It is found in its fullest in Victoria, but occurs in Central South Australia (Arabana, etc.). In the form of -gal it forms a widespread ending of tribal names: with phonetic variants such as -wa: l, -bal, it is found in southern New South Wales, a number of regions of Queensland, and in the Northern Kimberley in the name of the Wunambal tribe. It is treated more fully as to its distribution in the general study of Australian languages in another paper of this book. Here the treatment is limited to the part it plays in these eastern central coast languages.

The basic form of the suffix is -*galig. This ending is added to words in the central and western Victorian languages to indicate trial number or a paucal plural. It is one of the characteristics of these languages, and has been the subject of a paper by L.A. Hercus (1966: 335-7). She shows that in Arabana it is still a trial: aniri-gari, we three; aniri, we, limited by the addition of gari < *galig. She then defines it as 'guli or gari meant a group of people sitting together or associated with each other in some way'. People in general in Wembawemba (Victoria) is bey, from *ban, a word already discussed frequently in these pages.

In the east coast classifying languages, this root has become first of all gali, male member of tribe, then in Awaba has taken on the form gali:n, female member of tribe; in the north it has become gan by abbreviation, and so appears in Bandjalong as a feminine marker, there apparently with differentiation into a second form, whereby galigan is female (normal quality) and gan, female (weaker quality). Just what this implies, the Geytenbeeks do not make quite clear; it is, however, a local development. In Waga and Gabigabi dialects gan is simply woman, female, as also in Danggadi. It was pointed out in 8.1. that the occurrence of this word in some of the surrounding languages is quite likely a borrowing from the coastal languages, the word gradually working its way northward. In any case, if this explanation is right, it represents a most unusual case of semantic differentiation in a series of successive regions. The original meaning of social group is retained in the languages of Queensland and in the Winambal of the Kimberleys (though there is no accounting for its isolated appearance in the north-west). It also occurs as a tribal name ending in parts of the western Torres Straits.

Thus a word that began as a trial number marker has gone through some unexpected stages:

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1. trial (galig)
2. group of associated people (gari, gal)
3. member of a tribe (-gal)
4. female member of a tribe (gali-n > ga-n)
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The combination gali-ga-n in Bandjalong is a fourth development of very limited validity and not clearly explained as yet; gan = woman is a local development in the area north of the Bandjalong and to a less degree south of it.

In the Bandjalong region there is no appearance of *may as marker for vegetable foods. The 'residue' class here, called 'neuter' by Geytenbeeks, 'refers to all inanimates other than trees, and to all animate beings other than humans' (Geytenbeek and Geytenbeek 1971:8). It is marked by a zero ending, and the final -n of Djirbal is probably cognate with -gan of Bandjalong. There are other subgroupings in Bandjalong also, such as -gir, the set or class of... (almost in the mathematical usage of set): these are peculiar to the locality. The ending -gay given for neuter reappears in Awaba, where it is applicable to locations and times.

The Awaba system is again peculiar and seems to be of local development. Unfortunately, the more closely related languages are not well enough preserved to make clear whether the system is found in Dharug, Iyora, Guringgay or Darginjung.

The patterning in Awaba has certain connections with that of Bandjalong, sharing the -gal, gali:n, *galig, and also -gay, but in this language the latter is applied to locations or times. The personal marker is -gin- which occurs between noun stem and case ending. No explanation for this offers itself as yet. The other difference is that proper nouns and personal pronouns insert -um-, between stem and case ending. The word for eaglehawk, biraban, has a genitive biraban-gu-ba but, as the name of Threlkeld's tutor, the same case becomes Biraban-um-ba. Similarly, naduwa, $I$, has a genitive emmo-wum-ba, my, and a dative emmo-wu-n, to me, as well as the personal emmowun-gin-gu, to the place where $I$ am, as against the common noun forms biraban-gu and biraban-da-gu and the proper noun forms Bira-ban-(n)un and Biraban-gin-gu. The doubling of $n$ in the personal form seems to be an error based on English use: -um- remains as proper noun and pronoun oblique case marker. R.H. Mathews' notebooks show nothing similar in Darginjung or Dharug, so that the peculiarities look like local developments in Awaba itself.

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[^0]:    ${ }^{1}$ The ergative form is not listed by Holmer, from whom the list is taken, but appears to be likely in the language. It may be noted in passing that ergative and nonergative languages both share these features.

[^1]:    ${ }^{1}$ See infra 5.2.5.

[^2]:    ${ }^{1}{ }_{\text {See }}$ infra 7.5.1.

[^3]:    $l_{\text {The apparent prefix na- in the singular of this noun is not understood. The }}$ language still awaits depth study, and the present statements are taken from the author's field notes which it has not been possible to follow up.
    ${ }^{2}$ The word man is identical with Worora idja; but it has already been pointed out that Gunavidji shares some vocabulary with the western Torres Strait Islands (Capell 1942, 13/1:29).

[^4]:    ${ }^{1}$ These are treated in the paper on Australian languages in general，el sewhere in this volume．

[^5]:    ${ }^{1}$ This etymology for the ending is open to doubt; it seems to be a form of an early Australian *-gallg, a group of people. There is discussion of the matter in the section on the origin and spread of Australian languages in the earlier part of this volume.

[^6]:    ${ }^{1} \mathrm{C}$ - indicates a variable form preceding.

[^7]:    ${ }^{1}$ Livingstone's spellings here have been adjusted to those of this work.

[^8]:    *Languages with this mark are ergative.

