

# WARRAY GRAMMAR

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## 1. HISTORY AND SOCIAL ORGANISATION OF THE WARRAY PEOPLE

### 1.1 Consultants and Previous Work.

#### A. Previous Work

There are two very limited previous sources on the language. In 1912 Spencer collected some material. Some of this is published (1914 : 476 - 479), but other material including sets of kin terms are in his fieldnotes in the Museum of Victoria. In 1967 W. Hoddinott taped a small amount of Warray material with Moonlight Burrung.gu as his consultant.

#### B. Consultants.

##### 1. Mrs Elsie O'Brien (Ajibak).

Mrs O'Brien was one of my two main Warray consultants. She was born in about 1925 in a mining camp where the old railway crosses Bridge Creek (Digin). Mrs O'Brien spent most of her life before WW2 in various camps along the old railway line in country traditionally associated with the Warray language, though she also spent some time in Darwin. She spent WW2 and most of the following 20 years working on a range of stations to the east and south-east of Darwin, down to the Daly. She moved permanently to Darwin in the late 1960's.

Mrs O'Brien's primary language affiliation is not with Warray, but with Gamu, her mother's language which is traditionally associated with the area to the south-east of Warray. However she has a strong secondary affiliation to Warray, not only because she speaks it, but also because her stepfather was Warray. Additionally Mrs O'Brien grew up on the traditional country, and certainly has an incomparably better knowledge of it than anybody else.

##### 2. Mrs Doris White (Lidawi)

Mrs White was my major Warray consultant. She was born in about 1927 on Humpty Doo station (Dimiynmiyn). She is the eldest of a family of five who have

a primary linguistic affiliation through their father with the Warray language. Her siblings Mr Roger Yates (Wurdirdi), Mrs Dolly Fejo (Mabul), Mr Tony Kenyon (Luwanbi) and Mrs Ada Goodman (Ajibak) also worked as consultants. Mrs Fejo was a consultant on a fairly regular basis. Mrs White and her siblings have a strong secondary affiliation with the Malak-Malak language as both their mother and paternal grandmother had primary language affiliations with that language (Nguluk Dekdoenoerr and Nguluk Wang.garr dialects respectively). Owing to the early death of their father (approximately 1940) only the oldest three siblings speak Warray, but all regard themselves as having a primary affiliation with that language group (1.).

While Mrs White has a primary affiliation to the Warray language group neither she, nor her siblings have spent a major part of their lives on the country traditionally associated with the language. They have spent most of their lives on the country to the north which is associated with the Larrakiya, Wulna and Limilngan languages. Her parents worked on Humpty Doo and Marrakai stations until the war and her siblings were born in various places around these stations. They also spent some time in Adelaide River town. When Stanner passed through Adelaide River in 1932 he recorded some members of Mrs White's immediate family as being members of the Warray community there. After WW2 Mrs White worked on the stations on the floodplains of the Adelaide and Mary Rivers to the east of Darwin till the late 1960's when she moved to Humpty Doo, where her extended family has since been based.

Despite the fact that Mrs White and Mrs O'Brien have largely similar life histories, they have had very little common life history. They did not meet until after the War. Since the War they have had occasional contact on the stations and in Darwin, but this has been neither sustained nor consistent.

#### C. Language Use Since WW2 and the Effects of Language Death.

Both Mrs O'Brien and Mrs White have used creole/Aboriginal English /English as their main languages since approximately 1940. They both command a wide variety of English-based speech from that only minimally distinguishable from Standard Australian English [EOB], or a very good Aboriginal English [DW] through to heavy creole.

It does not appear that Mrs O'Brien has had much reason to use Warray since WW2. However Mrs White, because she continued to live with other Warray speakers, did not cease to use Warray, even though it had ceased to be her primary daily language. Indeed even today she and her siblings continue to occasionally use Warray among themselves. The fact that Mrs White's eldest child (born about 1950) has a reasonable Warray vocabulary, and that certain Warray kin terms continue to be used in the Humpty Doo community show that Warray must have been spoken with some frequency into the 1960's.

Naturally this state of affairs has had some effects on the language knowledge of my consultants. The main effect has been vocabulary loss. In many cases both my main consultants either could not remember, or had trouble remembering words. Naturally each of my main consultants remembered items that the other did not. However the dictionary presently contains approximately 1100 mono-morphemic entries, and it seems certain that Warray would have had a larger vocabulary than this.

Going through the Spencer vocabulary for example prompted Mrs White's memory for words she had not otherwise thought of. For example she normally used the expression *yul a-gutjgutj wet ground* for the lexeme *mud*. However when presented with the item *burna ~ borne mud* from Spencer's vocabulary she immediately recognised it as *burna blacksoil/mud* and spontaneously stated that *burna* applied to the blacksoil found on the floodplains.

Apart from this vocabulary loss due to lack of use, it also seems likely that both my main consultants either did not, or only rarely, encountered much of the vocabulary relating to the more esoteric cultural areas. The traditional life of the Warray was severely disrupted by the 1930's and it seems likely that much knowledge would not have been being passed on even then. An equally important factor is the different early life histories of my two consultants. Mrs O'Brien, who had more consistent contact with a wider range of Warray speakers on the traditional country, has a wider vocabulary in domains such as age/ceremonial grading terms, kinship, and religious life than Mrs White does.

While there has clearly been considerable vocabulary loss, there does not appear to be any significant evidence for alteration of grammatical structures as a result of the language death situation Warray is in. Schmidt (1985 : 41 - 42) suggests that the speed of extinction is the major factor determining whether semi-speakers will be found in language death situations. When language death is reasonably fast semi-speakers are unlikely to be found. With Warray there appears to have been just such a fairly rapid transition from use as the major everyday language to very limited use. This makes it unlikely that language death phenomena would have had major effects on the Warray of either of my main consultants. A comparison of Mrs White's dialect of Warray with Mrs O'Brien's suggests that Mrs White's may have undergone some slight grammatical alteration, owing to language death, but it is impossible to be certain of this (1.).

Warray as it is described in this grammar accords quite well with the grammatical systems described for other prefixing languages of northern Australia. There are only two places where on initial inspection it could appear that language death phenomena may have affected the grammar. These are the noun class system, which shows considerable superclassing and irregularity in concord (3.) and the verbal reduplication system which shows considerable variation in its pattern of occurrence (4.).

However there is good evidence that the variation and irregularity in both of these systems was a feature of living Warray. One of the major pieces of evidence is that Mrs O'Brien and Mrs White have essentially identical variations and irregularities in both systems. Given their lack of life history contact it is not possible to posit common membership of a slightly semi-speaker community as an explanation for this. It is inherently implausible that they should independently have produced essentially identical variations and irregularities in just these two areas. Schmidt (ibid : 223 - 225) summarises extensive evidence that the type of language alteration in language death is not predictable.

In the case of the noun class system there is further evidence to show that the variation and irregularity are original. Firstly in the material given by Moonlight Burrung.gu, who was of the generation senior to my consultants, to Hoddinott in 1967 there is evidence of the same superclassing and irregularity as found with my consultants. Secondly the related Jawoyn (Merlan) and Gun\_jey?mi (Evans) languages have noun class systems which are largely cognate both in the forms of the actual markers and in the concord based superclassing to the system found in Warray. As both of these languages are spoken by reasonable sized speech communities there is no question that language death has affected their noun class systems. It would therefore appear fairly conclusive that the superclassing and irregularities in the noun class system do not reflect language death phenomena. The most that can be said is that there is probably slightly more irregularity and superclassing in the speech of my consultants, than there was when Warray was a living language (3.).

There is no equivalently direct additional evidence concerning the verbal reduplication system. However a number of monosyllabic verbs in Jawoyn irregularly have frozen alternate reduplicated forms in the Non\_past. These forms all have cognates in the productive reduplication system of Warray (Harvey 198). The irregular occurrence of frozen reduplicated forms in Jawoyn would suggest that the irregularities found in the Warray verbal reduplication system are not of recent origin.

Neither of my consultants gave significant textual material. In Mrs O'Brien's case it would appear that the long period during which she has had little reason to use Warray has sharply reduced her textual fluency, though she could produce short texts with some concentration. Mrs White also did not often give texts, nor when she gave them were they very long. This would certainly be at least partly a result of the fact that she has not used Warray extensively for many years. However from experience I am strongly inclined to the view that this is not chiefly a result of language death phenomena but is mainly a reflection of the fact that Mrs White was not a raconteur. Her husband (now deceased) would for example tell quite long renditions of traditional stories in creole but Mrs White never did. Also speakers of other languages that I have

worked with, whose overall situation was fairly similar to Mrs White's, have been able to give quite long stories. Mrs White did occasionally give texts of some length (e.g. Text 2) and when she did so she had no difficulty in producing them.

## 1.2 Dialects.

There are some differences in the speech of my two main consultants Mrs O'Brien and Mrs White. These differences are discussed in full in the relevant sections of the grammar. Only a brief summary of the major differences is considered here.

### a) Retroflexion.

For both speakers a slight increase in vowel length is the most consistent cue distinguishing retroflexes from alveolars. However Mrs O'Brien's speech shows a much greater frequency of the [ɣ] offglide on the preceding vowel which is frequently taken to be the distinguishing characteristic of retroflexion. This [ɣ] offglide is quite rare in Mrs White's speech.

### b) Glottal Stop.

Mrs White shows a strong tendency to lenite the glottal stop in all environments other than reduplications. Mrs O'Brien maintains it in all environments.

### c) The Privative.

Mrs O'Brien uses two privative suffixes -miyn, and -waru (which also functions as the adjective root bad ). Mrs White does not use either of these suffixes. She uses the negator amala as a negative modifier.

### d) -mi Deverbal Nouns.

Mrs O'Brien has a productive pattern of nominalising verb roots belonging to the -m-arl conjugation with a suffix -mi (with reduplication of the root). Mrs White does not have this as a productive pattern.

### e) -ngan Focus.

Mrs O'Brien uses this suffix in a variety of forms -ngan ~ -an ~ -n with great frequency. Mrs White uses only the form -ngan which is relatively rare in her speech.

### f) Lexical Differences

There are some lexical differences between the speech of Mrs O'Brien and Mrs White, but these are overall minor.

It is possible that at least some of these differences reflect the effects of language death in Mrs White's speech. Firstly while the sample of Moonlight Burrung.gu's speech recorded by Hoddinott is quite small, it does agree with Mrs O'Brien's speech in the maintenance of glottal stop and in the pattern of usage of the -ngan Focus suffix. Secondly while Mrs White does not use either of the privative suffixes she does have the lexeme \_murlu\_miyn [hip-PRIV] widow(er). Thirdly while Mrs White does not use the -mi deverbiliser productively she does have lexeme pairs such as wirnwirnmī bird sp and wirn-m-arl to whistle.

These facts tend to suggest that Mrs White's speech has undergone some reduction putatively attributable to language death, in comparison with Mrs O'Brien's speech. This would correlate with the usual language death pattern where Mrs White's continued use of Warray in a restricted range of contexts has led to some grammatical diminution, whereas Mrs O'Brien's lack of use has left her somewhat less fluent than Mrs White, but with an unaffected language system. However it is equally possible that all the differences are genuine dialectal differences. Certainly it would appear that the differences in retroflexion and the lexicon must be so characterised.

## 1.2 Contact History.

The Warray originally lived in an area around the town of Adelaide River (Amungul) which is halfway between Darwin and Pine Creek (Map : ). Darwin was settled in 1869 and there was a gold rush in Pine Creek in 1872. There were thousands of goldminers on the gold fields at Pine Creek. A railway was completed between Darwin and Pine Creek in 1889. Therefore even though there is a great distance between the Warray and the major white population centres in the south, the Warray underwent intensive European and Chinese influence from a much earlier period than many Aboriginal peoples in northern Australia.

As elsewhere in Australia, and indeed throughout the world, the major result of this contact has been a drastic reduction in the numbers of the Warray people. The pre-contact population levels can only be very roughly estimated now. The territory traditionally associated with the Warray language appears to have been about 4,500 sqkm. Following Keen (1981 : 171 - 172) and allowing a population density of 1 person/8.5 sqkm (based on population densities in ecologically similar, but not depopulated areas of Arnhemland) the pre-contact Warray population may be very approximately estimated at about 530. The only people who now identify themselves as Warray are Mrs White's extended family. The massive population collapse is in accord with the 3% survival figure that Keen (ibid : 171) calculates for the Adelaide River - East Alligator area.

As elsewhere in this area it appears that the major causal factor in this reduction was the introduction of a host of new diseases to a previously

unexposed population (Keen *ibid* : 175). It is clear, chiefly from Mrs O'Brien, but corroborated by Mrs White, that a smallish community of Warray speakers survived in the traditional country until approximately WW2. This community was chiefly based at Adelaide River town (Amungul), and probably had been so based since fairly soon after the railway went through in 188. However the community of people that they remember from the 1920's and 1930's was small and it appears that the population collapse essentially took place in the 50 years between 1870 and 1920. Again this correlates with the evidence for the entire Darwin area.

It does not appear that violence was a major factor, though it must certainly have played a not insignificant role. However from all accounts the violence was largely interpersonal, and not usually the organised attempts at massacre of whole Aboriginal groups which occurred elsewhere in Australia (Stanner 1979 : 82).

There is very little oral history recounting what happened during this initial contact period. I have worked with Aboriginal people with a variety of backgrounds and traditional associations in an area bounded by Darwin, Pine Creek and Oenpelli. I have been told only one story which concerned deaths in the early contact period. This story concerned some poisonings that had taken place at Adelaide River apparently before World War 1. However in the version I was told, the deaths were the result of the Aborigines mistaking strychnine for flour. There was no suggestion that whites had poisoned and murdered Aboriginal people as was almost certainly the case. There are other versions of this story which do state that the Aborigines were poisoned deliberately by the whites (the versions recounted during the Finnis River Land Claim, for example). However they are obviously not the normative versions of this story.

The closest I ever came to a massacre story was that the white owner of Oolloo station, a Mr Rixon, told me that my Uwiynmil consultant Mr Stanley Arbutt (Nabambot) I was working with at the time, had told him stories about a massacre of Uwiynmil people on the Margaret River in the early 1920's. However it is necessary to treat this lack of oral history concerning massacres with considerable caution. Sharpe (1952 : 17) was the first report of blanks in Aboriginal oral history when it is known from European records that a massacre did take place. Stanner (1966 : 139) and Morphy & Morphy (1984) record similar blanks in the oral record for areas in the Top End.

Morphy & Morphy is a detailed consideration of the oral history the Ngalakan people in the Roper Valley area who have a similarly long period of contact as the Warray (since 1872). In as far as European records go they indicate that the history of the Darwin area was somewhat different from that of the Roper as the cattle industry was never a major factor. European economic activities were in general small scale and did not require total control of Aboriginal land and labour, which the cattle industry does. The only large scale

industry, buffalo hunting, because it was a hunting activity also did not require total control (Levitus forthcoming).

Nevertheless there is a reasonable general similarity both in terms of length of contact and the phases characterising it. In both areas there was an initial violent contact period, followed by a relatively harmonious period where Aboriginal people worked for Europeans. Then from the mid 1950's onwards Aboriginal people became dissatisfied with their working conditions and started to leave the stations and other workplaces.

Morphy & Morphy's conclusion concerning the lack of oral record describing the initial violence is that "the Ngalakan version of their early history has been transformed over the years by the selection of elements and episodes that were in harmony with their image of themselves at different points in time and which reflected their relationship with the white men who structured so much of their lives - their lives as they live them in the present, not the lives of their ancestors." (ibid : 475).

The present oral history of the area reflects the relatively harmonious racial relations that prevailed in the cattle industry from the 1920's to the mid 1950's. As a part of the process of maintaining this image of relative racial harmony, incidents of interracial violence have been either ignored or re\_assigned as occurring between "wild blackfellows" (who are quite different from station people) and whites. The "wild blackfellows" (pre-contact and unassimilated Aboriginal people) have the following characteristics (ibid : 465);

a) "wild blackfellows" didn't know about flour - they mixed it with water to use as white paint in ceremonies.

b) they didn't know about sugar - they mixed it in with water to make it like honey and ate it by dipping in a stick.

c) they didn't know about tobacco - when they first smoked it, it made them faint and afterwards go beserk.

d) they were naked, or else wore a loin cloth.

e) they couldn't speak English and had to communicate by signs.

f) Station Aborigines had to act as mediators between the white cattlemen and the wild blacks - they talked to the wild blacks using sign language and then translated their requests to the whites.

Mrs White told me a similar story of how at first contact the Warray had been suspicious of white foods, calling rice libiyn maggots, flour bulk white ochre, and sugar mawiya a type of poison. She had in turn been told this story by her aunt. Therefore it appears that the "wild" versus "civilised" blackfellow dichotomy was operative in the Adelaide River area. Stanner (1958 : 101) "Eventually for every aborigine who had Europeans thrust upon him, at least one other had sought them out. More would have gone to European centres sooner had



it not been that their way was often barred by hostile Aborigines. As last the early 1930's [when Stanner worked at Daly river] I was able to see for myself the battles between the encroaching myalls and weakening, now-sedentary groups who had monopolized European sources of supply and work." supports this view as having some degree of historical validity in this area.

The combination of this historical evidence and the variant versions of the Adelaide River poisoning story that exist suggests that re\_interpretations of history basically similar to those posited by Morphy & Morphy have also occurred in the Adelaide and Daly River areas. Whatever the explanation for the lack of massacre stories it is certainly true that the causes of the reduction of the Warray population do not now form a major, or at least normally recounted, part of their oral history.

### 1.3 Traditional Territory and Neighbours.

Establishing the territory traditionally associated with the Warray language is problematic on two major fronts. The first problematic front arises from the depopulation of the area under consideration (c.f. Map : ) resulting from the devastating population collapse and related population movements which followed on from contact. There is now very little knowledge of the traditional country, or indeed of most of the area bounded by Darwin, Pine Creek and Oenpelli. Consequently it is very difficult, and in many cases impossible, to posit other than fairly vague boundaries.

Mrs O'Brien has a confident and extensive knowledge of the Bridge and Howley creek areas. She also has a reasonable knowledge of the Adelaide River town area (Amungul). Mrs England had the best knowledge of the Batchelor-Adelaide River area. However there were no other consultants I encountered who had a good knowledge of other areas that were almost certainly associated with the Warray language (though I suspect that some Wagiman people living in Pine Creek have a good knowledge of the area towards the Douglas River). Mrs White and her siblings have a reasonable knowledge of the Humpty Doo and Marrakai areas.

The second problematic front arises in analysing the meaning of statements made about both associations between language groups and areas of land and language group affiliation. In the Darwin area aboriginal land ownership is now discussed entirely in terms of language groups. A particular area of land will be described as X language country. This accords to a degree with Merlan (1981 : 146) "I suggest that it may rather be the case for many areas within Australia that primary sanction is given at a supra-individual level to land-language relations."

However Merlan (ibid : 142) also notes "patrilineages are the basic land-holding units." Totemically mediated patrilineages are the basic land-holding

units in all areas of tropical northern Australia where population levels are not drastically affected by contact. They are also the basic land-holding unit in some areas where significant population collapse has taken place (Northern Kakadu - Oenpelli area Keen 1980). It appears to me that they must also have been the basic unit in the Darwin area as the language groups would have been far too big to function as the primary land owning group. No trace of a primary land-holding system by patrilineage now remains among the Warray, or most of their neighbours. However there is some evidence from Spencer's discussion of the Warray totemic system that the Warray did indeed have socially significant patrilineage groups (1.)

Statements about language group affiliation in the Darwin area can be somewhat variable, especially among younger people. Among the older people I have worked with it is clear that there is a norm of patrification to primary language group. However it is also clear that since early in this century the principle of matrification for children with non-Aboriginal fathers has been accepted. People may have a number of secondary affiliations to other language groups on a wide variety of bases. Certainly people have secondary affiliations to their mother's, grandmother's and spouse's language groups. They also have secondary affiliations to language groups whose language they speak, or whose country they have spent a long time.

In some cases where a combination of secondary affiliation bases co-incide the "secondary" language affiliation may effectively displace the "primary" language affiliation. Nowadays people's claimed "primary" language affiliation may also vary quite considerably depending on context, and a considerable number of people claim to be "mixed" with two (and occasionally more) primary language affiliations. People are generally confident only of the primary language affiliations of themselves and their close kin. Statements about language affiliation of other more distantly connected people vary both between consultants and over time with the one consultant.

Despite all these difficulties it is possible to determine the area traditionally associated with the Warray language within a not unreasonable degree of generality. There are five older sources which mention the location of the Warray. These are presented in order of the time of the fieldwork they are based upon.

Parkhouse (1895 pl, referring to pre-1894)

"The aborigines in whose country Port Darwin is situate are the Larrakiya, .....They inhabit a tract of land embracing the seaboard from Shoal Bay to Southport, together with some portion of the country west of that port. At the forty-six mile on the railway line we pass their southern border, and going through a neutral belt of some eight or ten miles, strictly preserved and upon which none trespass without good reason, at near Rum Jungle enter into

the territory of the Awarra, whose southern boundary is the Howley. At about Fountain Head, commences the country of the Aggrakundi, extending to the Union and perhaps to near Pine Creek."

Dahl (1926 p.173, referring to 1894)

"The majority of the natives who happened to visit our camp at Mount Shoebridge [Garrabang] belonged, however, to the Warai tribe,"

Basedow (1907, referring to 1905)

"One large tribe, called the Awarrai, has existed south of the Larrekiya, extending from Mounts Charles and Gunn to about the latitude of Mount Wells. To the south-east beyond the Mary River are the Agiwallem, the valley in which Burrundie now stands forming neutral ground."

Baldwin Spencer (1914 p53, referring to 1912)

"Warrai tribe: - This is a tribe usually called Wolwonga by whites. It is now entirely decadent, its remnant occupying the country between a place called Rum Jungle and Brock's Creek on the short railway line that runs south from Darwin."

Professor W.E.H. Stanner mentions the Warray in two manuscripts, which are numbered 419 and 425 in the bibliography compiled by Diane Barwick and Judith Wilson. Professor Stanner's manuscripts relate to the period of his fieldwork in Daly River in the early 1930's.

"The Warrai (who apparently were centred on the Stapleton and Adelaide River districts) frequented the Middle Daly River in the vicinity of the Crossing" (doc 419 op cit p6)

"I was given by MalakMalak old men only general indications of Kungarakan country. They pointed away from the river to the west of north beyond Litchfield station, which they considered to be MalakMalak country. The Warrai were always mentioned as their northerly neighbours. So I was persuaded that the Kungarakan country was on, or in the direction of, the Finniss River, and was probably to the north and east of the Djerat country." (doc 425 op cit p10)

"In 1954 Durmugam told me that there were two DagTjerait men in Darwin; one of them was called Short Johnny (?Djani). The Kungarakan were "different" from the Djerait. I made this note:

MM----->PP-----> Tj\_\_\_\_\_> Kungarakan. (K doubtfully on Daly River itself)." MM=MalakMalak, PP=PongaPonga, Tjerait=Tj

K and Tj low down on Blackfellows Creek. After K, then Warrai. (Both K, W at Rum Jungle, 46 Mile, Darwin River, Adelaide River).

Moonlight at Adelaide River is Warrai survivor. One also at Humpty Doo. Both can talk Wagaman.

On 30 May 1932 I tried to find a Kamor named Pubara at Adelaide River. I failed to find him but noted that "the Adelaide river district is the territory of the Warrai, who are possibly linked with the Wulna further north-west, and the "paper bark tribes" further on. Only two or three (I am told) of the Warrai remain. This district is now a working centre mainly for MULLUKMULLUK, many of whom have been away from their Daly home for decades, or lesser periods. One Leo, now working here, who is neda (bro) to Old Matthew, left the Daly as a boy and has worked here ever since. He has made several trips back to his home, and about 1915 worked with Dr. Basedow for several years: now he tells me he is "frightened" to go back there.

A few inquiries show me that the MM who are working "permanently" on the Adelaide have ceased to speak Madngella. They merely "hear" it, "little bit". If anything they have a narrower linguistic range than the Daly MM, except that some of them have a knowledge of Warrai, which the Daly natives do not possess." (doc 425 op cit p2)

During 1932 Stanner stopped for a day at Adelaide River town and recorded the names of Warray people living there and some Warray kin terms.

All the older sources agree in reporting that Adelaide River town was in Warray territory. This is confirmed by all the older Aboriginal people I have worked with. Both Mrs White and Mrs Fejo stated that Adelaide River town, which is known as Amungal to Aboriginal people throughout the region, was in Warray country. This was confirmed by other Aboriginal people knowledgeable about the area.

Therefore there can be no doubt that Adelaide River (Amungal) was in Warray country. The outer boundaries are less certain. To the north-west, the older reports agree that the Warray met the Larrakiya at Rum Jungle. Parkhouse and Spencer state that Rum Jungle was in Warray country and Basedow states that the country extended from Mount Charles and Gunn (which are two low hills close to the junction of the Batchelor road and the Highway). Stanner says that both the Warray and Gungarakayn were at Rum Jungle, 46 Mile, Darwin River and Adelaide River. Stanner also states that Stapleton, the station to the north-west of Adelaide River town was Warray country.

Obviously the location of the Gungarakayn is also relevant here. From the previously quoted statements of Stanner's it would appear that the Gungarakayn occupied an area covering Tabletop Range, the upper Reynolds and Finnis rivers and the eastern half of the Wagait Reserve. This would accord with evidence given in the Finnis River land claim. The evidence clearly argues that Batchelor and Rum Jungle were originally Warray and that in the north-west the Warray extended up towards, but did not include, Darwin and Manton River dams and their country included a small portion of the upper Finnis.

To the north and north-east Marrakai was in Wulna territory, and Old Mount Bunday was in Limilngan country (author's fieldwork). The Margaret River at its junction with the Adelaide has a Warray name jaman-duwak-gutminyu [hairbelt-across-put] (the place) where the hairbelt was put across. While a name of this type could be a calque on an original form in another language, it provides some evidence for the area being Warray.

To the east were the Uwiynmil, called Awiynmil by the Warray and others. These people were always described to me as the "Mary River mob", suggesting that the upper Mary river was the centre of their territory. To the south-east around Pine Creek was a now completely forgotten language group, called by Spencer Wulwulam. Spencer recorded a small kinship vocabulary in this language (in his fieldnotes in the Museum of Victoria). My consultants knew nothing about this group, though they did know about the easternmost dialect group of Jawoyn, the Ngarla?mi (called an-ngarlami by Mrs White).

Linguistic evidence indicates that Hayes Creek was in Warray territory. Many Warray placenames are characterised by an element la. The aboriginal name of Hayes Creek lorrgla contains this morpheme showing that it was within Warray country. The Douglas River was within the country of the Wagiman (Cooke and Merlan : pers comm). These two pieces of evidence correlate fairly well with that given by Parkhouse, Basedow and Spencer concerning the south-eastern boundary of the Warray.

To the south-west there is the evidence of Dahl that Mt Shoobridge [Garrabang] was in Warray territory. Evidence from place names unequivocally confirms this. Immediately adjacent to Garrabang is jarniyn-merrrk-gatbiyinyu [kangaroo-chest-held itself] (the place) where the kangaroo held its chest. This place name contains an old form of the word chest \*-merrrk, which is now an-mek. This preservation of an old form indicates that the place name is of some antiquity. The south-western neighbours of the Warray were the Gamu, and beyond them were the Malak-Malak.

From the evidence, more or less supported, presented here it appears that the Warray essentially occupied the valleys of the Margaret and the upper Adelaide rivers. To the east on the upper Mary river there were the Uwiynmil, to the south-east were the Wulwulam, to the south on the Douglas river were the Wagiman, to the south-west were the Gamu, to the west on the Tabletop Range were the Gungarakayn, to the north-west on Darwin and Manton rivers were the Larrakiya, and to the north were the Wulna, with the Limilngan being on the north-eastern boundary around Old Mt Bunday station.

#### 1.4 Linguistic and Cultural Relationships.

The linguistic relationships of Warray are considered in detail in Harvey 198. In brief Warray is a member of the large Kunwinjkuan language family.

Within that family it was probably most closely related to the extinct Wulwulam language. The most closely related living language is Jawoyn. From the little information available on Uwiynmil it is clear that it and Warray are reasonably closely connected. Gungarakayn is also a member of the Kunwinjkuan language family, but the connection between it and Warray is much more distant than those between Warray and its eastern neighbours. Warray is not related to the other neighbouring languages, except in so far as these languages are members of the Australian language family.

Culturally there are only two systems which link the Warray to other peoples in the area. One is the ngirrwat naming ritual system (1.6.2). The ngirrwat system is found among the Daly River tribes, the Gungarakayn and the Wajigiyn as well as the Warray. The other is the section system which they shared with the Uwiynmil (1.5.4). This section system is the only one found for many hundreds of kilometres.

On balance it would appear that the strongest connections of the Warray in pre-contact times were to the east. Certainly the linguistic evidence points this way, and I would be more inclined to give weight to the sharing of an isolated section system than to the sharing of a more widespread naming ritual. Nowadays however the Warray are more usually associated with the Gungarakayn, though it is clear from Stanner's comments (1.3) and the genealogies of my consultants that the Warray had much to do with the Gamu and the Malak-Malak from the turn of the century onwards.

### 1.5 Social Organisation.

As a result of the dramatic population collapse and associated movements discussed in sections 1.2 and 1.3 it is not possible to present a detailed discussion of the traditional social organisation. However there is sufficient information to present an outline of the major aspects.

#### 1.5.1 Kinship.

While many other aspects of traditional life have fallen into disuse the kinship system is still largely maintained. Most people at Humpty Doo are able to determine kin relationships according to the table and refer to such determinations as being "Aboriginal/blackfellow way". The kin-terms bapa sibling, mang.gang cross cousin, wetji (now referring to both grandmothers) and gagu (now referring to both grandfathers) are used by all members of the community, even the children.

#### 1.5.2. The Dyadic Suffix.

There are two ways of forming dyadics in Warray. One is the suffix \_miyi, which was used by both consultants. It may be observed in line 1 of Text 9.

1. al-walin-miyi ba-yajiyn-lul  
F-mother-DY 3plS-went-pair  
The mother and the daughters, they went.

In response to English elicitation bases dyadics involving members of different generation levels used the senior term in the dyadic. Whether alternative constructions using the junior terms were possible is unknown (as in Ngalakan - Heath, Merlan & Rumsey pp114-116). When the people involved are of the same generation level a choice is involved for the reference terms as these, but not the address terms, are gender marked. In cases where a dyadic involved a mixed sex group of siblings or cousins the feminine marked reference terms were used.

2. al-wulgan-miyi ba-yajiyn-lul  
F-sibling-DY 3plS-went-pair  
a) The two sisters went.  
b) The sister and brother went.

3. a-wulgan-miyi ba-yajiyn-lul  
M-sibling-DY 3plS-went-pair  
The two brothers went.

The other method of forming dyadics, used only by Mrs O'Brien, is to prefix the 1dlinc pronoun njama to the relevant kin term.

4. njama-bapa ba-yajiyn  
DY-sibling 3plS-went  
The two siblings have gone.

#### 1.5.3. Avoidance.

The long period of white contact in this area has led to the breakdown of traditional social organisation. Avoidance is no longer practised. However from discussions with my main consultants and others it would appear that the Warray had the usual avoidance patterns found in traditional aboriginal society. Text 2 on initiation in its later parts details how once a boy was initiated, he and his sisters had to avoid one another. Nowadays while the formal aspects of brother/sister avoidance are no longer practiced, it is still noticeable among

people older than approximately 40 that brothers and sisters still in effect avoid one another. Such brothers and sisters rarely speak to one another, often using children as messengers, even when living in adjacent camps or in the same camp. They also tend to avoid one another physically.

Sisters and sisters-in-law tend to have very strong relationships characterised by co-habitation and co-operation. However the relationship between sisters also shows some elements of avoidance. While sisters may address each other by name and use direct speech, there are also indirect speech mechanisms.

1. warriba ban-ba-wu muya  
children 1sgO-3plS-give tucker  
Children give me tucker!

While 1 has the literal gloss indicated, it may be used by a woman and be understood as being addressed to her sister. Alternatively if a woman has daughter(s) her sisters may address her with indirect speech acts that directly name her daughter(s).

The universal mother-in-law avoidance relationship was in force among the Warray. I have not observed enough interactions between in-laws to comment on the extent to which it survives in present day life. Traditionally mother-in-law and son-in-law had to avoid one another totally. They could not address one another and were not even supposed to be in physical proximity to one another. The mother-in-law was supposed to cover her head if her son-in-law was in the vicinity.

There was an avoidance register in Warray used in addressing other affinal relatives such as the brother-in-law. Mrs White refers to this register as "sideways language". Neither of my consultants remember this register as involving lexical replacement (c.f. Dixon 1980 : 59). From the little information available it appears that the avoidance register involved a suffix -lawu which was attached to nominals, the use of plural forms with singular reference, and a more extensive use of potential verb forms.

2. nguk-lawu ban-ba-wu gan-a-ga-ng-u  
tobacco-AV 1sgO-2plS-give IRR-2plS-have-NP-DAT  
Would you mob give me any tobacco if you mob have any? (addressed to one person)

The suffix -lawu is primarily attested in samples of normative avoidance speech. However there is one example of its occurrence in ordinary speech.

3. amala gan-bujapbujap-m-i jarlak gaji belam-lawu



Neg IRR-poke around-Aux-NP hole that snake-AV  
gan-ngal?-ni-yn  
IRR-come out-Aux-NP  
Don't poke around that hole! A snake might come out!

In this example it also appears to have an avoidance marking function, though rather a literal one.

#### 1.5.4. The Section System.

The Warray had a section system. It is recorded by Spencer (1914 : 53) in some detail. It has fallen into complete desuetude and it took considerable and persistent inquiry before my consultants were able to remember the section names. Indeed for some considerable time Mrs White denied all knowledge of the system. Neither of my consultants was able to give the normative rules for the operation of the section system. However according to Spencer (op. cit.) the following rules applied.

- a). An Adjumbitj man marries an Allpungerti woman, and the children are Appularan (males) and Allpularan (females).
- b). An Appularan man marries an Allinmitj woman, and the children are Adjumbitj (males) and Alljambitj (females).
- c). An Appungerti man marries an Alljamjbitj woman, and the children are Auinmitj (males) and Allimitj (females).
- d). An Auinmitj man marries an Allpularan woman, and the children are Appungerti (males) and Allpungerti (females).

Following these rules produces the system set out in Table 1.2 (the correct forms of the section names are used, rather than Spencer's versions. a- is the masculine prefix and al- is the feminine prefix.)

Table 1.2 : The Warray Section System

—

The little available contemporary evidence indicates that Spencer's rules are correct. Mrs White and her siblings state that they are -jambitj, and this is confirmed by Mrs O'Brien. Mrs White and her siblings state that their father and aunt were -bularrang. This conforms with the patrilineal descent patterns given by Spencer. The neighbouring Uwiynmil had a cognate section system. Using the names given by my Uwiynmil consultant Mr Arbuth, and assuming that the rules given by Spencer also apply Table 1.3 sets out the Uwiynmil section system.

Table 1.3 : The Uwiynmil Section System.

—

(a- is the Masculine class marker, and iyn- is the Feminine class marker)

—

Allowing for the differences in the feminine prefixes and other slight variations, this is obviously the same system as Spencer recorded for the Warray.

In his short discussion of the Warray section system Spencer (ibid : 54) states "the organisation is closely similar to that of the southern Arunta where there are only four class names. It must however be remembered that though there are only four such names yet, in all tribes in which this is so, each of them is divided into two groups so that, for example, one group of adjumbitj men intermarry with only one group of allpungerti women, the other group of the latter women are forbidden to these men. In most tribes distinct names are given to the two groups so that there are eight in all."

It is not entirely clear what Spencer means by this statement. If he means that the Warray had an Aranda kin system, then he was quite clearly mistaken. It is possible that he is rather obscurely referring to the fact that the correct marriage section contains a number of kin types who are not potential spouses. However the class of potential spouses within the correct marriage section would not have been identical in the Warray section system to that in Southern Aranda section system, because the kin systems permit different marriage possibilities.

#### 1.6.1 Mamulbak : The Conception Totems.

Another area where Spencer appears to have been partially misinformed is in relation to the mamulbak, the Warray conception totem system. In his discussion of the mamulbak system, Spencer states "The child belongs to a totemic group associated with its father's side of the tribe but not to his father's own totemic group." (ibid : 193). Spencer goes on to detail some examples of totem descent but states that he was unable to obtain details of the system in full.

Spencer's presentation of a system of indirect patrilineal inheritance of mamulbak totems is in conflict with the information set out in Text 1 where Mrs White details how she received her totem. Her aunt went out hunting and found a long neck turtle near Lidawi (Beatrice Hill). She brought the turtle back to camp and everybody ate it and vomited. Her mother, in early pregnancy, was among those who ate it and vomited and thus she knew she was pregnant. Therefore Mrs White's aunt found her totem for her. This description clearly indicates that

the Warray mamulbak system is one of conception totems, not one of indirect patrilineal inheritance of totems.

It may be that be that Spencer confused two totemic systems, one a system of conception totems called mamulbak, and the other a system of totems concerned with patrilineages. Spencer gives a list of mamulbak totems which includes a number of inedible items such as stone axes and white ochre. He describes this as being a feature of the inland tribes, not occurring with coastal peoples. Spencer also states that the mamulbak totems are divided into two classes; one group associated with the \_jambitj/\_bularrang patrimoiety, and the other group associated with the -bangardiyn/-wimitj patrimoiety. At the end of his discussion Spencer states "When their old customs were in force the old man said that the Warrai people never killed their own totemic animal and that if he were to see anyone else killing it he would be angry and would ask him, Why have you killed my mumulbuk?". This prohibition on killing one's mamulbak was confirmed by my consultants (though it is no longer practised).

The prohibition on killing one's mamulbak would seem to make little sense in the case of non-food items. This fact and Spencer's statements about indirect patrilineal descent and patrimoiety associations of totems would suggest that as well as having a system of mamulbak totems, which are remembered by my consultants, the Warray had another patrilineally based system of totems which included inedible items.

Alternatively Spencer's comments on patrilineal inheritance of totems, may indicate that men tried to ensure their children's conception totems were associated with their own. This sort of manipulation of totems is described by Elkin (1938 :169 -172) as occurring in a wide area of central and northern Australia, and produces a sort of indirect patrilineal inheritance of totems. The presence of inedible items on Spencer's list would presumably indicate that a food item inducing vomiting was not the sole recognised signal for pregnancy in traditional times. Any item which by some method was viewed as indicating the pregnancy would presumably have become the baby's totem.

#### 1.6.2 Personal Names.

A child will receive one of its names by the ngirrwat system. ngirrwat was translated as "name swapping" by Mrs White. It was practised by the Warray, the Gamu, the Gungarakayn, the Wajigiyn, the Malak-Malak, the Matngella, the Ngan'gi Wumirri, the Marithiyel, the Marimanintji and the Murinhbatha, all tribes to the south and west of the Warray. Mr Arbutt, my Uwiynmil consultant denied knowledge of it, so the Warray may have been the easternmost tribe using the ngirrwat system. The ngirrwat system among the Daly River tribes is discussed in Stanner (1937), and among the Watjikinj by Elkin (1950).

Under the system as it still operates among the Warray and Gungarakayn an older person will give their name to a child and they then become ngirrwat to one another and may refer to each other as "my ngirrwat". There is no information from my teachers on how this system fitted into the kinship and section systems, nor what sort of relationship it produced. It appears that the system was universal. All the Warray and Gungarakayn people I know have ngirrwat names.

Most people also have their other name given to them through the ngirrwat system. Alternatively they may have as their other name, the name of the place where their mamulbak (conception totem) was found. I do not know what factors condition the choice of ngirrwat vs mamulbak as the source for a name.

#### 1.6.3 Initiation.

From Text 2 on initiation we may see that initiation of boys among the Warray followed the usual pattern (Elkin 1938 p 203 - 207). The men would remove the boys from the camp and take them some distance away to another camp with shelters that the men had made. The men kept the boys there for a long time and put them through the law tjutjuk.

When this was finished the men painted designs on the boys with red and white ochre. They then took them back to the main camp where they were welcomed by the women who put armbands, headbands and hairbelts on them. However their sisters were not among the women who welcomed them. From initiation onwards brothers and sisters had to avoid one another.

The secret Text 12 is concerned with the initiation of girls. The crucial event for girls was the onset of menstruation and at this time a girl was secluded from the main camp on her own.

#### 1.6.4 Marriage.

As observed in 1.5.1 on kinship and 1.5.4 on the section system, the evidence appears reasonably clear that the Warray had a Kariera kinship system, with cross cousin marriage. The passage from Spencer quoted and discussed earlier in 1.5.4 "one group of Adjumbitj men intermarry with only one group of Allpungerti women, the other group of the latter women are forbidden to these men." would indicate that actual cross cousin marriage was prohibited, with more distant cross cousins being the marriage partners. If this was so then no trace of such a prohibition now survives (see 1.5.4).

The Warray had the universal aboriginal system of promising spouses (Berndt & Berndt 1985 p 197 - 199). As usual in this system women were promised very young to men much older than themselves. In Warray the promised spouse is always described as being "given from the law".

3.     nal njek:-u-wu tjukung-yang tjutjuk-yang pan-wu-y  
man 1sg-OBL-DAT aunt-OR law-OR 1sgO-give-r  
My aunt promised me my man from the law  
(They been promise me that old man)

In one case

4.     tjatpula wu-y tjutjuk a-kala-wu al-kulpe ka-kelngaymiyi-n old man  
give-r law NF-3sg-DAT F-woman NC-married-irr  
pulk-yang  
white ochre-OR  
She is the promised wife for that old man. She is married from white  
ochre.

Mrs White described the promised spouse as being "from white ochre". It is not entirely clear what was meant by this. Further enquiries about the statement did not prove fruitful. Little balls of white ochre are used in sexual magic in the Darwin area and it may be that the comment "from white ochre" relates to this phenomenon.

#### 1.6.5 Funeral Practices.

From Texts 3 and 4 it is clear that the Warray practised the system of tree platform exposure of corpses found throughout this area of northern Australia. According to the texts, a grass table antjetpan (tjetpam - grass) is made by laying sticks across branches and then covering the sticks with grass. Then the corpse is placed on top and covered with paperbark. The description in Text 3, lines 3 and 4, of the head being taken around the camp with somebody saying " I am bringing the head for you mob to see, he has gone forever, he cannot come back" presumably relates to a skull as opposed to a head as such. After the corpse had rotted, the bones were wrapped up in naka grass. They were probably then carried around for some time as this is normal practice in northern Australia, and were eventually hung up in banyon trees. It is possible that there were other final resting places for bones than banyon trees.

A considerable time after the death (nowadays a year) a shade laying ceremony kulak is held. This ceremony is concerned with finally laying the dead person to rest, but I did not obtain full details on it.

#### 1.7 Economic Life.

##### 1.7.1 Food Sources.

The country occupied by the Warray is well within the monsoon belt and as such is amply watered and would have provided abundant and relatively easily obtained food supplies.

It seems most likely that as with nearly all hunter-gatherer societies most of the food would have consisted of various types of vegetables and small game gathered chiefly by the women. There was quite a variety of vegetable food *muya* and game *wang* available to them. There appear to have been three main varieties of vegetable staples.

#### 1. Yams.

There are many types of vines which have edible underground tubers. These were dug up by the women using yamsticks *mul*. There is a specific verb *pi-nj* which describes this activity (There is a more general verb *pan-ka-ngi* to dig ) It appears that the favoured wood for yamsticks was ironwood *langwalak:u*.

#### 3. Lilies.

Cycads and yams grow almost exclusively on the higher ridge and point land. They do not grow on the blacksoil floodplains that formed a major part of the territory of the Warray. On the floodplains lilies were probably the main vegetable food source. The Warray make a much finer set of terminological distinctions among the various lilies than does present day botany. Both the red lily, *tjinganj* (*nelumbo nucifera*) and various types of white lily (the various *nymphaea* sps especially *nymphaea violacea*) are found on the floodplains of the Adelaide and the Margaret. The Warray have names for four different types of *nymphaea violacea*;

*mapul*

*pampulangu*

*tumwekwek:u*

*kumututu*

As well there is a word *kinjini* which apparently describes a young form of the *tumwekwek:u* lily. Lily seeds (raw or roasted), lily stems *kankok* and lily roots were all eaten. Apart from the *nelumbo* and *nymphaea* species which are called lily in English, the Warray also regard a number of other edible aquatic plants, *yili*, *meltuk:u* and *manampay* (all unidentified as yet) as belonging to the same group as the lily family.

In addition to these three main plant food sources the Warray also consumed a wide variety of seeds and fruits.

As mentioned there is a multitude of small game in this area. Turtles, goannas, snakes, fish, echidnas, lizards and flying foxes are all eaten. Turtles were usually gathered by the women. There is a specific verb *putjapputjap-m-al* which describes how the women would in the dry season, poke around the mud in

drying up billabongs with yamsticks searching for turtles. Turtles (usually the long neck turtle, *Chelodina rugosa*) are plentiful and were undoubtedly a major food supply especially in the dry season. Goannas are also plentiful. They are usually caught by the men who spear them or simply grab them and swing them around and around (the verb is waruwaru-m-al) to break their necks. Flying foxes and birds were killed with throwing sticks kurutu. Magpie geese nganpal appear from comments to have been a popular food.

The Darwin area is not particularly rich in big game such as kangaroos and emus. On the other hand wallabies, especially the agile wallaby pulak, are plentiful and would presumably have been the main larger game food source in traditional times.

### 1.7.2 Material Culture.

#### a) Woven Objects.

There are two main sources of weaving material in this area; fibre from the banyon tree punji and pandanus leaves merinj and yangal. Banyon fibre was prepared by the women rubbing it on their thighs (the verb is pok-la-m) into string anpik. I do not have any descriptions of how pandanus leaves were prepared but presumably the Warray used the same methods as other peoples in the Top End.

From the banyon fibres the women made loincloths walp:e and dillybags litj:i; from the pandanus baskets tup:u were made. Presumably fishing nets wunek were also woven though I do not know which fibre they were made from.

#### b) Weapons

The Warray had two types of spears. One type was the barbed 'hook' spear which was made from ironwood langwalak:u. As the name implies this spear had projections down the side and it was used in fighting. The name for this type of spear puk:u is also used as the generic for spear.

The other type of spear was the stone spear. This consisted of a shaft made from bamboo anpunj or phragmites tarin with a stone head which was tied on by banyon fibre. The banyon fibre was rubbed with wax from the roots of ironwood trees kak. The Warray distinguished stone spears with white heads lawuk from those with dark heads tjimpilang. Stone spears were used for hunting. The Warray of course had woomeras tjun.

Apart from hook spears the Warray also had nullanullas warawara for fighting. They also had the boomerang puran though I do not know what purposes it was used for. As elsewhere in Australia the European metal axe tjutju appears to have displaced the stone axe mariyumpun very early. The word tjutju appears

in Spencer's list of totems from early this century with the gloss 'stone axe' (Spencer op cit p193) and tjutju is the only word used by Mrs White and Mrs Fejo for describing axes. Therefore it would appear that even at the turn of the century in the same way as the metal axe had displaced the stone axe so the word tjutju had displaced mariyumpun and become something of a generic.

c) Canoes.

There are words for two different types of canoe; a dugout canoe pamunj and paperbark rafts kuliampin.



## 2. PARTS OF SPEECH

In Warray verbal and non-verbal stems are easily distinguished by morphological criteria. Verbal stems are that class of stems which may take the aspect/mood suffixes and the pronominal prefixes (4.3). All other stems are non-verbal stems. The non-verbal stem class may further be sub-divided on syntactic grounds into a nominal class and a particle class. Nominals are that class of non-verbal stems which may function as predicates in verbless clauses. Particles are that class of non-verbal stems which cannot so function.

For EOB there was no overlap between the nominal and particle classes. However as DW did not use the privative constructions (3.7.3), the Negator *amala* occurred as both a nominal and a particle in her speech.

1.     *ngek wik amala bat-ga-ga-ngi*  
1sg water Neg 1sgSNP-PR-have-A  
I have no water

It is important to note that in 1 *amala* modifies the nominal *wik water*, not the VC *bat-ga-ga-ngi I have*. If it modified the VC, then the VC would take Irrealis prefixing, as it does in 2.

2.     *gaji amala mulmek gat-yang a-garla-wu*  
that Neg liking IRR1sgS-be NP CL-3sg-DAT  
I do not like him.

The correct literal translation of 2 is I do not have liking for him, not I have no liking for him. 3 demonstrates *amala* functioning as a particle.

3.     *ajang.gi ngirri amala-wu-n nal-wa*  
maybe dog Neg-DAT-PRM man-could be  
Maybe it is a dog if not it could be a man.

In Warray there are a number of reasons for positing separate noun and adjective nominal sub-classes.

1.     Nouns and adjectives take different inchoative suffixes (3.3).
2.     Nouns and adjectives show quite distinct patterns of class marking (3.2.1 & 3.2.2).
3.     Adjectives, but not nouns take the Oblique suffix (3.2.3).
4.     In EOB's lexicon adjectives may be productively derived by reduplication of noun or verb roots (3.2).

There are also a number of reasons for establishing a pronoun subclass.

1. Only pronouns may form adnominal genitives (3.7.7).
2. Pronouns take the Oblique suffix, but in a slightly different pattern to adjectives (3.2.3)
3. Pronouns form special emphatic forms with the COM suffix -yiwu in a quasi-instrumental sense (3.9).
4. In EOB's lexicon there is a suffix -weleng self (?) which occurs only with pronouns (3.9).

Therefore the following part of speech stem classes are posited based on a mixture of morphological and syntactic criteria.

1. Verb
2. Nominal, with the following subclasses
  - a) Nouns
  - b) Adjectives
  - c) Pronouns
3. Particles

Membership of these stem classes is mutually exclusive, with the exception in DW's lexicon of the Negator *amala* which is a member of both the Particle and Noun classes. Nominal and verb roots are defined in terms of their possibilities of occurrence within these stem classes. Verb roots are that set of roots which in an un-derived form occur only in verb stems (In EOB's lexicon adjective roots may be derived by reduplication of verb roots 3.2). Nominal roots on the other hand may occur in both nominal and verb stems.

## 2.2 Nominal Lexemes and the Structure of Nominal Stems.

The great majority of nominal lexemes are unanalysable root forms. However nominal lexemes may also be derived in a number of ways. They may be phrasal forms.

1. wang an-gujik-u  
animal Cl-black-OBL  
buffalo (lit. black animal)

They may be derived by compounding which is a fairly productive process in Warray (3.2.4) For EOB deverbal nouns may be productively formed from verbs belonging to the -m-arl conjugation, by reduplication of the verb root and the

addition of the -mi nominalising suffix (4.). For EOB adjectives may be formed by reduplication of noun or verb roots.

2.     muya   -muya-muya  
tucker       greedy for tucker

3.     dil?   -dil?-dil  
to paint     painted, spotted

The precise limits on the productivity of this process synchronically in EOB's lexicon are not certain. However it has been significant historically as a large number of adjective roots are reduplications. The pair in 3 and other noun/verb root - reduplicated adjective root pairs occur in DW's lexicon, but she did not use the process productively. Nouns are occasionally derived from nominal roots by use of the class markers, but this process is not productive (3.2.1).

Nominal stems have the following basic structure (given that 0- is a class marker.)

Class marker + root (+ Oblique)

Compounding processes compound roots (3.2.4). Determining the ordering of additional suffixes beyond the Oblique is problematic as examples with more than one suffix are very rare. The only double suffix combinations consistently attested are combinations of a case or number marker followed by the PRM suffix.

#### 2.2.1 Class Marking of Nouns.

Nouns are grouped into four classes in Warray.

- a).    A class marked by al- containing nearly all human female nouns.
- b).    A class marked by a- containing some human male nouns.
- c).    A class marked by an- containing non-detachable/regenerative body part nouns and some part of the landscape nouns.
- d).    A class marked by 0- containing all other nouns.

##### A. The Human Female Class.

The human female class shows the most consistent pattern of marking of the three classes with substantive markers. al- occurs on all roots which inherently refer to human females, and on all gender variable roots.

al-gulbe	woman
F-woman	
al-wulgan	sister
F-sibling	
a-wulgan	brother
M-sibling	

Kinship terms which are used for address form an exception to this. Warray has some kin terms which are used for address only, some which are used for both address and reference, and some which are used for reference only. Terms which are used for reference only are class marked, whereas the other two types are not class marked (1.).

reference	address	
mother	al-walin	bulbul

grandmother wetji (both reference and address)

This lack of class marking on kin terms used for address, and indeed further for vocatives in general, is found in all the prefixing languages of Northern Australia for which there is accurate information. Marrithiyel (Green pers com), Ngan.gi Kurung.gurr (Reid pers com), Nung.gubuyu (Heath 1984 : 217 & 222), Ngalakan (Merlan 1983 : 56), Mangarrayi (Merlan 1982 : 77), Warndarang (Heath 1980 : 32) and Mara (Heath 1981 : 94) all have noun class systems which are realised through prefixes to the root. In all of these languages address kin terms do not take class marking. In Ngalakan, Mangarrayi, Warndarang, Nunggubuyu and Mara vocatives in general are not class marked. In Warray words such as al-dumarru old woman retain class marking when they are used vocatively.

In Wagiman, which does not have a noun class system, reference kin terms consist of the address terms and the prefixes na- Masc and ngal- Fem (cognate with Warray a- and al-) and a suffix -mang (Cooke 1987 : 153).

address	reference	
sister	biyakin	ngal-biyak-mang
grandfather	mundi	na-mundi-mang

It would appear likely that this lack of class marking for address kin terms, and vocatives in general, found throughout what constitutes a very diverse group of languages results from some feature common to prefixing noun class systems.

It would seem likely that the relevant feature would be most obvious in a language where the noun class system plays an important role in the grammatical

system. Nung.gubuyu is such a language. Class marking is found with all classes of nominals and in the pronominal prefix system. It plays a major role in discourse cohesion (Heath *ibid* : 604). In Nung.gubuyu it is possible to omit class marking from any noun (Heath *ibid* : 169-170). Heath states that the absence of a class prefix is correlated with the foregrounding and focussing of the nominal. As the vocative use of a nominal is the most foregrounded and focussed it can have, it is obvious from this why vocatives lack class marking in Nung.gubuyu at least.

The question then arises as to why focussed and foregrounded nouns should lack class marking. The answer would appear to follow from the function of a noun class system. The purpose of a noun class system is presumably to indicate which out of a number of potential groups of nouns a noun actually belongs to (Often these groupings then play an important part in discourse cohesion - they do not do so in Warray).

When a speaker uses a nominal in a foregrounded and focussed sense, they are primarily interested in gaining the hearers attention rather than in indicating any grouping (or related discourse) function. Therefore there is less reason to class mark such nominals. Given that vocatives are the paradigm case of such nominals, and that in traditional society address kin terms were an important class of vocatives it is unsurprising to find that address kin terms lack class marking in a wide variety of very distantly related languages.

The extent to which other nominals lack class marking appears to be related to the general importance the noun class system in each language. In Nung.gubuyu, where the noun class system is very important (e.g. for discourse tracking), the class markers may be omitted from any nominal. In Warray where the system is unimportant from any functional perspective, the occurrence of class marking in nominals is entirely lexically controlled.

The noun al-gaway catfish is anomalously a member of the human female class.

#### B. The Human Male Class.

Class marking with a- does not display semantic consistency. Nouns inherently referring to human males and spirit entities show the following marking patterns.

a-bulu	boy	[EOB only]		
a-jamurru	policeman			
a-joykmilpe	doctor			
a-jurriyn	young boy	a-lil boy	a-wurumbi	devil
barrikut	white man			
jatbula	old man			
mam	spirit			

mambirihu	spirit
marlwa	spirit
mululuk	initiaand
nal	man

Gender variable nouns take a-, with the exception of garnjoy woman's son-in-law (al-garnjoy man's mother-in-law ). Also class marked with a- are the following higher animates.

a-bijijingmi	duck sp	a-jawijawiju	ibis sp
a-ngiku	dingo		

### C. The Part Class.

The major and by far the numerically dominant sub-class of nouns in the part class are body parts. In Warray the great majority of body part nouns are marked with the an- prefix. However nouns referring to bodily fluids, excretions and hair are normally unmarked (i.e. they belong to the 0- class). As such class marking contrasts an alienable detachable/ regenerative body part set (belonging to the semantically unmarked 0- class) with an inalienable non-detachable/regenerative body parts (marked by an-).

The contrast between the two marking patterns is nicely exemplified by the noun roots nguk faeces, guts and mala/-mara leaf, which may take both patterns. In its 0- marked form nguk may mean either faeces or guts, however in its an\_nguk form it can only mean guts. Similarly for leaf the unmarked form mala may indicate leaves either on the tree or on the ground, whereas the an- class form an-mara is only attested referring to leaves on the tree.

There are a small number of body part lexemes whose class marking is somewhat anomalous in terms of the contrast posited. The reasons for the anomalous class marking of these lexemes are discussed in detail in Harvey 198. The major point to be noted here is that the patterning of anomalous class marking is much better explicable if the focal "whole" notion of the body part class is taken to be the individual as a social as well as a physical entity, rather than the body. With the individual as a focal notion it is understandable why the following entities which are parts of the individual's social or physical identity, but not the body parts, are class marked as inalienable.

an-bong	track	an-mewel	clothes
an-nyi	name		

It is important to note that this class marking defined division of alienable/inalienable does not co-incide with the set of inalienable body parts

which is defined by the possibility of verbal cross-reference of the whole and incorporation into the VC (5. & 5.). Apart from body parts there is a small class of geographical terms which are marked with an-.

an-barn	sky
an-gangilaki	this side of the river
an-gimiyn	point
an-lung.ga	billabong
an-bul-	water [EOB only]
bamngul	cloud
bupal	creek
golal	plain
jaynbalk	saltwater
lun	cave [EOB only]

However, as the preceding forms demonstrate, there are no semantic parameters determining whether a geographical feature will be class marked with an- or not. Apart from body parts and geographical features the following nouns also belong to the an- class.

an-bart	billycan	an-bik	string
an-buyn	bamboo		
an-goy [EOB]	~ an-goy.ng [DW]	soup, stew	

There are occasional examples where the an- prefix is omitted. This has not been observed with the other substantive class markers.

1. letma ban-ya-m-iyn  
tooth 1sgO-swear-Aux-PP  
He swore at me (an-letma tooth)

#### D. Derivational Use of the Noun Class Markers

The class markers have only a very minor derivational use in Warray. Only one lexeme derived by use of the class markers formed part of the lexicon of both my consultants.

-dumarrru	al-dumarrru
blind	old woman

In addition to this lexeme DW's lexicon contained two other such derived lexemes.

wili an-wili  
house, hole dreaming place

lurlak a-lurlak  
shade shelter (made from branches)

EOB did not accept either of these derived forms. Apart from these two pairs there are a few other pairs showing equivalent correspondances between 0- and substantively class marked nouns.

wik an-wik  
water skin

bul an-bul- [EOB only]  
trouble water

jurriyn [DW only] a-jurriyn  
spring boy

However it seems most unlikely that these items are historically related (in the first case it appears likely that the historical form for water was \*wak. The Jawoyn and Wagiman cognates are wak and wa?-an respectively).

### 2.2.2 Class Marking of Adjectives.

The occurrence of the class markers with nouns is largely describable in terms of a system that is identical to that found in many languages. Certain classes of nouns are defined by semantic criteria, and most nouns within each class take a particular prefix, which is thereby the marker of that class. There are greater or lesser degrees of correlation between the putative semantically defined classes and the morphologically marked classes.

In nearly all languages with systems of this type there is a general expectation of concord between a head noun and a modifying adjective. Class marking of adjectives in Warray does not conform to this expected pattern. Instead the following general patterns are found.

- a) a- is the unmarked form, being possible with any referent.
- b) al- is found only with human female referents
- c) an- is the usual form with referents lower on the animacy hierarchy.



d) 0- is only very infrequently found. Usually there is an immediately preceding head noun, and such forms are probably better analysable as compounds (3.2.4 : 40 - 42).

These patterns of adjectival class marking reveal superclassings based on a human/higher animate vs other entities distinction. The human/ higher animate superclass is marked by a-. Within this superclass the occurrence pattern of al- reveals that there is a marked human female subclass. The other superclass, marked by an- is an everything else superclass. However the possible occurrence of a- with any type of referent shows that this second superclass is itself marked with respect to the first superclass. Essentially similar adjective class marking patterns revealing animacy based superclassing patterns are found in Warray's close relative Jawoyn (Merlan) and its more distant relative Gunjeŋmi (Evans).

While the Warray adjectival superclassing patterns show a general congruity with those found in Jawoyn and Gunjeŋmi there are some important differences. In Warray there are lexical restrictions on the class marking of certain adjectives.

-murdek	big	(does not take an-)
-gubam	lots	(does not take an- or al-)
-wak	little	(does not take a- or al-)
-bitbit	red	(does not take a- or al-)
-durk	white	(does not take a- or al-)
-gujik	black	(does not take a- or al-)
-jerriyn	one	(does not take a- or al-)

An interesting example demonstrating these restrictions occurs in Tt 11 line 13.

1. ba-gundiyi-n-iyŋ an-jerriyn al-murdek  
3plS-play-UNM-PI Cl-one F-big  
He played around with his older daughter.  
lit. They played around, the big female one.

The head adjective -jerriyn in the NP an-jerriyn al-murdek is not lexically capable of taking al-. However the modifying adjective -murdek is capable of taking it, and shows al- because the NP has a female referent. There does appear to be a correlation between lexical restriction of class marking and the adjective being on a quantitative gradation scale. Adjectives on the maximal side of the gradation scale such as -gubam lots, -murdek big either prohibit an-, or like -buruyu tall rarely take it. Adjectives on the minimal side of the

gradation scale such as -jerriyn one, \_wak little either prohibit a-, or like -jatjbik short rarely take it. However the significance of this fact is not precisely clear. It does not appear to relate to the animacy factors discussed previously. Even adjectives which do not show lexical restrictions or preferences occasionally show exceptional class marking. In 2 a human male referent takes an an- marked adjective.

2. gaji nal an-warru-n yajiyn ban-ji-yi  
that man Cl-bad-PRM went lsgO-say-PP  
He told me that that bad man had gone.

These lexical restrictions/preferences and irregularities such as that in 2 are not found in Jawoyn and Gunjeŋmi.

Another factor affecting class marking of adjectives is function. When adjectives function as adverbs or as comments on situations (this second function is restricted to a-muku good and a-warru bad in the data available), or as the equivalents of English quality nouns such as coldness or heat, they almost always take a-.

### 2.2.3 The Oblique Suffix.

The Oblique suffix is -wu (c.f. 3.7.7 for the allomorphy of this suffix). The analysis of the Oblique suffix is somewhat problematic. Formally the suffix is identical with the Dative, and apart from two exceptions involving pronouns (c.f. 1 - 5), it cannot co-occur with the dative. Therefore it is rather doubtful that the oblique can in fact be formally constituted as a separate suffix from the dative.

The main reason for separating the two is ease of understanding. The Dative/Oblique suffix has a very wide ranging pattern of occurrence (3.7.7 & 5.). Throughout most of this wide range it is characterisable as a relational suffix, and therefore classes with the other case markers (3.7). However there are a number of situations where the Dative/Oblique suffix appears without any relational content. In these situations context would lead us to expect either a nominal without case marking, or a nominal case marked with only a non-dative case marker. In nearly all of these cases the Dative/Oblique suffix does not appear to have any substantive content at all. It appears to function essentially as a stem forming, and especially an oblique stem forming, suffix. As the term Dative is normally understood in a relational sense it is desirable in the interests of avoiding confusion to have a separate term for referring to the non-relational functions of the Dative/Oblique suffix. Therefore the terms Dative and Oblique are used to describe the relational and non-relational functions respectively of the Dative/Oblique suffix.

The Oblique is found with adjectives, pronouns and the demonstrative ana [DW] ~ ngana [EOB] there. EOB also used it with the demonstrative gaji that. Its pattern of occurrence and functions are somewhat different with each of these groups. The occurrence of oblique stems with adjectives in un-case-marked functions is to some degree lexically controlled. Some adjectives do not permit the Oblique; others use it rarely; others use it fairly frequently; and others require it.

Simple Stem	Oblique Stem		
big -murdek	Required	Prohibited	
different -wirrang	normal	rare	
lots -gubam	about equally		
short -jatjbik	less common	more common	
black -gujik	Prohibited	Required	

There is a correlation between occurrence of an Oblique stem and the occurrence of the class marker an- in adjectives (3.2.2). Roots which do not permit an- (such as -murdek big ), or take it only rarely (-buruyu tall ) do not permit the Oblique. Conversely stems which require an- (-gujik black ) also tend to require the Oblique. However the second correlation is not absolute, -jerriyn one requires an-, but does not permit the Oblique. If an adjective has an oblique stem then that stem must be used when the adjective takes a case marker other than the dative. The only exception is \_wirrang different which is attested both with both simple and oblique stems in non-dative case marked functions.

The form and pattern of occurrence of pronominal oblique stems is similar to that of adjectival oblique stems. Like adjectival oblique stems they are found in place of simple stems, in un-case-marked usages and in non-dative case marked forms. However there are a number of differences between adjectival and pronominal oblique stems. Firstly the 1st and 2nd singulars show oblique stem variants in dative case marked functions.

1.     bapa ngek-u-wu at-gul-m-iyn wang ban-wo-y  
 father 1sg-OBL-DAT 1sgS-ask-Aux-PP meat 1sgO-give-PP  
 I asked my father to give me meat.

2.     ngirri wa?-wa-m-arl-ayn ngek-u  
 dog R-bark-Aux-UNM-PI 1sg-DAT  
 The dog was barking at me.

3.     wang nguny-u-wu  
 meat 2sg-OBL-DAT

The meat is yours.

4. an-nga-m yiliyn ji-yi nguny-u  
2sgS-hear-PP how say-PP 2sg-DAT  
Did you hear what he said to you?

Occasionally in EOB's speech these pronouns show stems with double oblique marking.

5. gaji warri-wak-u li-yn ngek-u-wu-lik  
that child-little-OBL fall-PP 1sg-OBL-OBL-LOC  
That little child fell on me.

These oblique stem datives are nearly always used when the pronoun is in genitive function, and are commoner than the simple stem datives in other functions. Secondly unlike adjectives, the oblique stems are not required in non-dative case marked forms. Instead there are some fairly clear discourse correlations to the occurrence of pronominal oblique stems. Pronominal oblique stems are normally found when the pronoun is in a non-utterance-initial position.

6. ngirri letbal ga-ni-ni ngek-u-lik  
dog close NP-PR-sit 1sg-OBL-LOC  
The dog is sitting close to me.

7. ngek-lik mutjla bali-yajiyn-lul  
1sg-LOC together 1plSNP-go A-pair  
(He is) next to me. The pair of us are walking together.

8. an-bart nguny-u-yang-an  
P-tin 2sg-OBL-ABL-PRM  
(I got that) tin from you!

9. gaji wayn ga-ji-ny-u-n gaji a-garla-wu ngek amala  
that like that NP-do-NP-DAT-PRM that Cl-3sg-OBL 1sg Neg  
That one can do as likes, that one, He (can, so long as he does not bother) me.

However they are neither restricted to, nor required in this position.

10. ngek-u-yang buran at-wo-y gaji mi nal  
1sg-OBL-ABL boomerang 1sgS-give-PP that got man  
genganawu bu-m

over there hit-PP

That boomerang that I gave him, He grabbed it and hit the man over there.

11. buku gaji nguyn an-bula-m wakmiwu  
spear that 2sg 2sgS-make-PP alone  
Did you make that spear on your own?

Thirdly pronominal oblique stems are found conveying allative/ locative, and ablative case meanings, otherwise marked by -lik and -yang respectively (3.7.4 & 3.7.5).

Allative.

12. amala letbal gan-yayn al-garla-wu  
Neg close IRR-approach NP F-3sg-OBL  
Do not approach close to her!

Locative.

13. matj ga-jim-in an-larl-u nyama-wu  
wind NP-come-NP Cl-cold-OBL 1dlinc-OBL  
A cold wind is blowing on us.

Ablative.

14. nguk amala gat-na ajang.gi ba-mok-mi ngek-u  
tobacco Neg IRR1sgS-see maybe indefS-steal-Aux PP 1sg-OBL  
I cannot find my tobacco. Maybe somebody has stolen it from me.

It appears likely that discourse factors of focus and emphasis are the controls on the occurrence of oblique vs locative/ablative marking of these locational case functions. A comparison of 6 with 13 shows that factors such as affectedness or information structuring of the clause would not appear to be relevant.

Apart from adjectives and pronouns, the demonstrative ana there also shows an oblique variant ana-wu. This variant is uncommon. In the few examples it is attested in it is always in the clause initial theme position. In EOB's speech the demonstrative gaji that also shows an oblique stem gaji-wu variant in clause initial position.

15. gaji-wu-muk-an gan-ba-jim-in marriwak-u-yang

that-OBL-COLL-PRM IRR-3plS-come-P ages-OBL-ABL

That lot should have come ages ago.

The oblique suffix with the demonstratives behaves very differently from the oblique suffix with adjectives and pronouns. With the demonstratives the oblique suffix appears to be have some kind of focus marking function. With adjectives and pronouns it is chiefly concerned with deriving oblique stems in backgrounded positions. It is by no means clear that the two patterns of usage are related either synchronically or diachronically.

No obvious reason suggests itself for the development of oblique stems in adjectives, but pronouns do cross-linguistically have a tendency to develop oblique stems from dative/genitive forms. It would appear likely that the use of the oblique suffix with demonstratives has a quite different origin. In Jawoyn, the related dative suffix -gu/-wu functions as a nominal, temporal and locational specifier (Merlan pers com). It is possible that the use of the oblique with demonstratives relates to this pattern historically.

Given the synchronic differences and the possible diachronic differences it might appear that another term should be devised for the oblique suffix with datives. However given the rarity of its occurrence synchronically this is not a profitable course.

#### 2.2.4 Compounds.

While neither of my consultants used nominal compounding particularly extensively (however c.f 3.7.4), it would appear from the range of nominal compounds attested that it was a major process in Warray. This would accord with the general structure of the language (compounding is a major process in the Verbal Complex 4.1). It would also accord with the structuring of other languages in the Gunwiyn.guan family, both close and distant relatives of Warray; and with evidence summarised by Mithun (1984 : 880 - 881) that compounding is one of the processes most affected by the lack of language use which characterises language death situations such as that affecting Warray. Formally the following productive compound types are attested.

1. ngubat-yul

foot-ground by/on foot (noun + noun)

2. a-wirrin-muku ga-yiyn-yiyn

Cl-song-good NP-PR-be NP

He is a good singer. (noun + adjective)

3. an-gimitj-buru-buruyu

P-face-R-long

long face (noun + reduplicated adjective)

4. lang-walak-u [DW] ~ leng-wolak-u [EOB]

some-hot-OBL

ironwood (adjective + adjective)

These orderings are the same as the orderings found in simple NPs with the modifier following the head (5.). Reduplication of adjectives, as in 3, has an intensive function (3.5). Therefore it would appear that productive nominal compounding in Warray uses the following basic structure (allowing for 0- as a class marker).

Class Marker + Modifiee Nominal Root + Modifier Nominal Root

The noun + adjective compound is by far the most frequent and productive type of compound. Body parts are by far the most commonly compounded nominals. Some of these compounds simply refer to other body parts.

5. an-dum-ngarndi forehead

P-face-front of neck

However synechdochic compounds are particularly frequent.

6. a-/al-dum-jaminy-u a man/woman with bad eyes

M-/F-eye-bad-OBL (lit. the bad-eyed male/female one)

7. a-yel-gubam-u a fat man

M-flesh-big-OBL (lit. the big-fleshed male one)

8. a-murlu-nendu He who was kicked in the hip by a M-hip-horse  
horse. (lit. the horse-hipped one)

9. al-garra-dren She whose leg was run over by a train.

F-leg-train (lit. the train-legged one)

The names of a number of natural species are formally synechdochic compounds.

10. a-bam-gubam(-u) Brown snake\_

Cl-head-big-OBL

11. an-garra-bitbit tree sp (leea rubra)\_  
Cl-leg-red
12. a-ngarndi-bit-u Eucalyptus miniata\_  
Cl-throat-coloured-OBL
13. (a-)ganim-bali-wu frill-necked lizard  
Cl-ear-big-OBL
14. ngarndi-jaman Burdekin duck  
front of neck-hairbelt
15. mara-bali-wu Leichardt tree  
leaf-big-OBL
16. jen-bulang-u tree sp  
tongue-wild-OBL

Nominal compounds are in general right branching in Warray (verbal compounds are also right branching 4.1 & 5.). One of the major pieces of evidence for this is the class marking of compounds which shows a general conformity to a right branching pattern. Compounds with a rightmost noun generally show the class marking patterns of nouns. Compounds with a rightmost adjective generally show the class marking patterns of adjectives.

The preceding examples show a full range of class marking for compounds with a rightmost noun. a- with a human male referent (8); al- with a human female referent (9); an- with a part referent (5); and 0- elsewhere (1 and 14). Compound nouns referring to detachable/regenerative body parts anomalously take the an- prefix, when on general principles 0- would be expected (3.2.1).

17. an-nabat-bidiyn  
P-finger-nail  
fingernail

A comparison of these forms with the following shows that this anomalous class marking cannot be explained in purely formal terms.

18. (an-)nabat-jerriyn  
P-hand-one  
one-handed ~ five
19. (an-)nabat-girranglul



P-hand-two

two-handed (refers to the correct method of passing things to avoidance kin)

It appears that when 18 means one-handed class marking with an- is obligatory. However when it means five class marking varies between an- and 0- (0- would be the expected class for the lexeme five ). 19 shows the same variation as five. Therefore it is the case that whenever a compound nominal functions as a body part lexeme it is class marked with an-, whether this conforms to the general principles of part class marking set out in 3.2.1 or not. Given the high frequency of synecdochic and other body part compounds it would appear that class marking with an- has the function of distinguishing body part compounds which are body part lexemes from other types of body part compounds. The variable class marking of the lexemes five and two-handed would appear to be a reflection of the clash between the class of the compound lexeme and the class suggested by their obvious synchronic analysability.

Synchronic analysability also appears to be an important factor affecting the class marking of noun + adjective compounds. As stated compounds with a rightmost adjective show a pattern of class marking generally congruent with that of adjectives. a- is possible with any class of referent, al- occurs with human female referents (however c.f. 36), and an- occurs with referents lower on the animacy hierarchy. The following example is a good illustration of the adjectival nature of class marking of noun + adjective compounds.

20. ngirri an-gujik-u a-layn-buruyu ga-gan-ga-n

dog Cl-black-OBL Cl-tail-long NP-PR-have-NP

The black dog has a long tail. (noun + adjective)

In 20 we have a literal body part compound with a 0- class (but higher animate) referent being class marked with a-. This would be the normal adjective class marking with such a referent. There are some examples such as 15 and 16 where a noun + adjective compound shows 0- marking, but these are all highly obscure synecdochic species name compounds (natural species belong to the 0-class). Other compounds of this type such as 13 show variation in class marking between 0- and a-, or between 0- and an- (c.f. 24). This patterning of class marking would suggest that a semantic continuum from the relatively literal (e.g. 10 - 12) to highly obscure (e.g. 15 - 16) controls the synchronic analysability, and thereby the class marking of compounds. Relatively literal forms are indeed analysed as compounds, whereas highly obscure forms are treated as unanalysable. There is a middle area on the continuum where forms are variably analysed, and thus show variable class marking.

There is other evidence which shows that noun + adjective compounds are in general to be formally classed with adjectives. Firstly they take the adjective inchoative, and not the noun inchoative (3.3 : 2). Secondly the more literal synecdochic compounds generally take yang, the to be copula and not ga-ngi, the to have copula (though they can do so as in 20), arguing that they are adjectival ascriptions (as in 21) and not possessed nouns (as in 22).

21.   nal a-dum-jaminy-u ga-yiyn-yiyn  
man M-eye-bad-OBL NP-PR-be NP  
The man has bad eyes. (lit. The man is bad-eyed)

22.   an-gi a-murdek-jang.gi ga-gan-ga-n  
P-nose Cl-big-very NP-PR-have-NP  
He has a very big nose.

In addition to the ordinary compound types exemplified in 1 - 4, and so far discussed, a number of nominal super-compound forms also occur in Warray. In most cases these appear to be relatively simple compounding of a compound.

23.   an-dum-mija-wek  
P-eye-hair-little  
eyebrow/lash

24.   an-mek-mu-durru-m-durru-m  
P-chest-bone-?  
breastbone [DW only]

25.   (an-)bam-jili-wilek-wilek  
P-head-mouth-charcoal-charcoal  
brown snakes with striped head [EOB only]

In 23 we have an initial compound eye-hair which is then compounded with the adjective little. The whole compound is class marked with an- because it is a lexemic body part compound. 24 is a cranberry compound. 25 is of interest because the corresponding form used by DW, bamjiwilewilek is no longer synchronically analysable as a compound. This provides further evidence for the view that more obscure compound forms will tend to be re-analysed as monomorphemic lexemes.

While the super-compounds in 23 - 25 are relatively unproblematic structurally there are two other types of compounds which do not conform to the structural template given for compounds. Unfortunately both of these are only

attested a couple of times. One type attested with both consultants involves the verbal pronominal Indirect Object prefix nat-.

26. bun-nat-dingding  
feather-IO-sticky  
bird sp

27. a-nat-litji-muku [DW] an-litji-muku [EOB]\_  
Cl-IO-dillybag-good Cl-dillybag-good  
snake sp snake sp

These forms are of considerable interest involving as they do an otherwise exclusively verbal morpheme. They provide evidence that nominal and verbal compounding is essentially a single phenomenon. However without more information it is not possible to comment further on this aspect. The other type of compound was only used by EOB.

27. a-gu-bimek-u  
Cl-big-dew-OBL  
a big dew

28a. a-gu-gulube-wu b) a-gulube-gubam-u  
Cl-big-cold-OBL Cl-cold-big-OBL  
a big cold a big cold

EOB gave the forms in 28 as alternates of one another. 28b is an ordinary noun + adjective compound. However 28a and 27 are unlike all other compound forms. Strictly speaking they are cranberry compound forms as no independent nominal root -gu exists. The alternate forms given in 28 suggest that the -gu is a reduction of -gubam, but no method of verifying (i.e. disproving) this suggestion presents itself. Whether or not this is the source of -gu these forms display an otherwise unattested adjective + noun ordering. The class marking and the occurrence of the Oblique suffix (3.2.3) show that 27 and 28a are adjectives, which contradicts the general right branching pattern of Warray compounds. Again without more information it is not possible to comment further on these forms.

One very interesting feature of Warray is the occurrence of alternate or suppletive root forms in compounds. One set of lexemes show alternate root forms when they occur as the initial element in a compound.

-buye stinking buyet-  
an-gibe back gibat-  
an-je thigh jat-

an-nebe	hand	nabat-
an-ngube	foot	ngubat-

Apart from nominal compounds, these forms are also used when the body parts are incorporated (5.), and as the inchoative stem (for stinking 3.3). The only one of these lexemes attested in second position is *\_buye*. When it is in second position the form found is *-buye* and not *buyet-*.

29. an-nguk-buye-buye  
 Cl-guts-R-stinking  
 beetle sp.

The following somewhat unusual compound illustrates the different forms nicely.

30. an-buyet-buye-rru  
 Cl-stinking-stinking-OBL  
 Chinese mint, *hiptus*

This form is not a reduplication (29 shows reduplication of *-buye*). Rather it conforms to the compound template we have given, with the first occurrence of the lexeme showing *buyet-*, and the second occurrence showing *-buye*. The class of lexemes showing suppletive forms in modifiee position in compounds is limited to *wik* water, which for EOB only shows a form *an-bul-* in compounds. However unlike the previous set this suppletive form is found only in nominal compounds, and then only in the meaning of water (c.f. 36). When water is incorporated into the verbal complex the free root *wik* is used (5.).

Perhaps the most interesting class of suppletions are those found with the following class of adjectives when they occur as the modifier nominal.

lexeme	free	compound
bad	-warru	-jamiyn
big	-murdek	-bali, -gubam
little	-wak(wak), -wekwek	-wak, -wek(wek), -wirlang
lots	-gubam	-jetjerr
short	-jatjbik	-jupu

Some further comments on this set are required. The root *-warru* does in fact occur in compound structures. However it does not mean bad in such compounds, but rather functions as one of the two methods of forming the privative (3.7.3). Of the two compound alternants of big, *-bali* is attested only with body parts (*-gubam* is also attested in body part compounds). The difference

in the free and compound meanings of \_gubam is especially interesting. The compound alternant of lots is presently only attested in the following expression.

31. a-ngoni-jetjerr-u  
Cl-word-lots-OBL  
lots of words

As indicated the roots -wak and -wekwek may occur both free and bound, but -wekwek is rare as a free form. The following is a particularly interesting compound involving -wak.

32. ngek al-murdek-wak-u at-yungoy-iyen bul  
1sg F-big-little-OBL 1sgS-be-PI trouble  
ba-jim-u-n ba-bu-ji-yn  
3pls-come-DAT-PRM 3pls-hit-recv-PP  
I was a little bit big (just adolescent) when the war (came). They  
came and fought.

-wirlang is only attested in the following body part compound (No other body part compounds involving little are presently attested).

33. a-dum-wirlang-u  
M-eye-little-OBL  
He has little eyes.

-jupu is similarly attested only in the following.

34. an-jat-jupu(-wu)  
P-leg-short-OBL  
short-legged

The extent of the use of all of these forms is not fully clear. In elicitation forms such as

35. an-gimitj-jatjbik-u  
P-face-short-OBL  
short-faced

were obtainable. On the other hand bad and big which were by far the most commonly compounded adjectives invariably used the compound roots in compounds.

Interestingly it appears that only the compound forms of these adjectives may occur in inchoatives and factitives (3.3 & 3.4).

As we mentioned in our initial discussion, nominal compounding was not particularly extensively used by either of my consultants. This was most strongly the case for DW. The most productive compound form she used was a noun + adjective form involving the adjective -maymak pleasing, sweet. If this adjective is compounded with an inanimate noun X, then the resulting compound means that some person Y is desirous of/greedy for X (Y likes X animate is expressed by verbs).

36. girri amala gan-in-wu-n a-girri-maymak-u  
money Neg POT-1/2plO-give-P Cl-money-pleasing-OBL  
He never gives us any money. He is really greedy for money.

37. al-garla a-wik-maymak-u  
F-3sg Cl-booze-pleasing-OBL  
She really likes her booze.

While this was the only noun + adjective compound, not involving body parts, which occurred with any frequency, both consultants occasionally gave other such noun + adjective compounds.

38. al-gulbe-muku ga-yiyn-yiyn  
F-woman-good NP-R-be NP  
She is a pretty woman. [DW]

39. ngirri a-ngiku bin-ga-ba-gut-m-arl warri-ba  
dog M-dingo 3plO-NP-3plS-bear-Aux-NP child-PL  
ngirri-wekwek-u  
dog-little-OBL  
The dingoes are bearing many pups. [EOB]

I would expect that such noun + adjective compounds were much more frequent when Warray was an actively used language. In addition to the compound forms so far discussed there are also quasi-compound forms.

40. nal a-murdek-jang.gi an-gurrung wuki-yiwu ga-yiyn-yiyn  
man Cl-big-very P-arm twisted-COM NP-PR-be NP  
He is a very big man with a twisted arm.

41. nyil-a an-nguk jawijawiju an-ji an-doy an-jaway  
bring-IMP P-guts ibis P-liver P-heart P-lungs

wang nguk yikirring-u bali-ja-yn

meat guts lplc-DAT lplSNP-eat-A

Bring us ibis guts, liver, heart, lungs. (Bring) the insides for us. We will eat them.

In 40 and 41 instead of the usual class marked forms the bare roots wuki twisted and jawijawiju ibis are found. The sequences an-gurrung wuki-yiwu and an-nguk jawijawiju do not form single phonological words as true compounds do. On the other hand the pause between the two does not appear to be as clear as for fully independent phonological words. Morphologically the sequences pattern as if they were compounds. Therefore it would seem most apt to characterise the sequences as quasi-compounds. Given that nominal compounds and simple NPs have essentially the same structure examples such as 40 and 41 argue that compound and simple NP are focal points on a continuum rather than discrete concepts.

### 2.3 Inchoatives.

Warray has two inchoative suffixes; -ji-yn the adjective inchoative (formally identical to the reciprocal suffix 5.); and -nayi-yn the noun inchoative. -ji-yn is by far the more frequent inchoative.

1. -gutjgutj i-gutjgutj-ji-yn

wet lplS-wet-inch-PP

wet We got wet.

Most adjective inchoatives are formed according to the pattern of 1, with -ji-yn being suffixed to the un-class-marked root. However if an adjective has an alternate or suppletive compound root (3.2.4), then that compound root must be used in the inchoative. The adjective lexemes so affected are as follows.

lexeme	free	compound
bad	-warru	-jamiyn
big	-murdek	-bali, -gubam
little	-wak, -wekwek	-wekwek, -wirlang
lots	-gubam	-jetjerr
short	-jatjbik	-jupu
stinking	-buye	buyet-

Two of these adjective lexemes big and little have two compound roots. Of the two big roots, -bali is attested only with body parts, whereas -gubam is attested with both body parts and other classes of nouns. The only inchoative

presently attested for big is gubam-ji-yn. However the following example suggests that a compound inchoative involving -bali would be possible.

2. dum-wirlang-ji-yn  
eye-little-inch-PP  
He became little-eyed.

As the noun inchoative -nayi-yn was comparatively infrequent some examples showing its range are given.

3. gangik ga-gangik-nayi-n  
dark NP-dark-inch-NP  
dark It is getting dark.

4. murtbal nang.giyn bambik-nayi-yn  
witchetty grub whatchamacallit pygmy goose-inch-PP  
The witchetty grub, whatchamacallit, becomes a pygmy goose.

5. an-wik a-warru ga-yiyn-yiyn jatbula-nayi-yn amugoy  
P-skin Cl-bad NP-R-be NP old man-inch-PP all right  
His skin is no good. He has become an old man all right.

Somewhat anomalously at first sight -nayi-yn is also found with the adjective -murdek big.

6. a-murdek-nayi-yn nal-wirru ga-yiyn-yiyn gijewek la-m  
M-big-inch-PP man-really NP-PR-be NP beard pierce-PP  
He has become adult, he is a proper man, (his) beard has pierced through.

7. al-murdek-nayi-yn ajang.gi an-wak ga-gan-ga-n  
F-big-inch-PP maybe Cl-little NP-PR-have-NP  
She has become female big. Maybe she will have the baby (soon).

However the evidence shows that these inchoatives are not the anomalies that they initially seem. Firstly they differ formally from the adjective inchoatives by the presence of the class markers a- and al-. Secondly the pattern of this class marking conforms to that of nouns rather than adjectives. With adjectives a- can be used with a human female referent (3.2.2), whereas it cannot be with nouns (3.2.1). The form a\_murdek-nayi\_yn cannot be used with a human female referent; as with nouns the al- form al\_murdek-nayi-yn must be used. These inchoatives are not inchoatives meaning to become big of the adjective -murdek big, but are rather noun inchoatives meaning to become human male big and



to become human female big of the nouns a-murdek human male big and al-murdek human female big respectively. Usually they mean to become adult, but 7 shows that a specifically female way of becoming big may also be described with this inchoative type. This inchoative occurs as an auxiliary in the verb wul-nayi\_yn to turn into.

## 2.4 Factitives.

Formally factitives are compound verbs in Warray (4.1). There are three auxiliaries which are used to form factitives. The two common and fully productive factitive auxiliaries are \_nik\_b\_arl, (the causative auxiliary 4.1) and -wo-y. They are used with both nouns and adjectives and are apparently in free variation.

1. an-mewel at-dilmi-wo-y  
P-clothes 1sgS-dry-fact-PP  
I dried the clothes. [-dilmi dry]

2. amala gan-a-nyi-wu ju-m gaji-n  
Neg IRR-2plS-name-fact die-PP that-PRM  
Don't name him! He is dead that fellow! [an-nyi name]

3. at-gorri-gorri wek at-wekwek-nik-b-iyn  
1sgS-R-break firewood 1sgS-little-fact-Aux-PP  
I broke the firewood up into little pieces. [-wekwek little]

4. gaji a-ngiku wek-yi multji-nik-b-iyn  
that M-dingo fire-ERG fear-fact-Aux-PP  
Fire frightened that dingo (away). [multji fear]

The third factitive auxiliary is -m-arl. It is less common than the other two factitive auxiliaries, but it does appear to be productive.

5. at-gubam-m-iyn  
1sgS-big-fact-PP  
I grew him up. [-gubam big]

6. at-gujili?-m-iyn  
1sgS-full-fact-PP  
I filled it. [gujili full]

3 and 5 demonstrate that if an adjective has a special compound root that root will be used in the factitive, as it is in the inchoative (3.3). In addition to these factitive denominalising auxiliaries, Warray also uses the auxiliary -bu-m as a denominaliser with the meaning to make/create noun X (4.1).

7. wirrin song wirrin-bu-m to sing, to make a song

8. deyp tape deyp-bu-m to tape, to make a tape

As 8 shows this denominalisation is productive for cognate Object verbs at least. Neither of my consultants used factitives with any great frequency. In some cases the inherently factitive verb bula-m to make was used.

9. wang ga-jip-m-arl a-malmal-u ga-bula-n bali-ja-yn

meat NP-bash-Aux-NP Cl-soft-OBL NP-make-NP 1plSNP-eat-A

an-letma a-warru bat-yajiyn

P-tooth Cl-bad 1sgSNP-be A

He is bashing the meat to make it soft for us to eat. I have bad teeth.

Alternatively an inchoative and a separate cause clause was used.

10. wek-lik an-walng?-wo-y gamu-ji-yn

fire-LOC 2sgS-hang over-Aux-PP tough-inch-PP

You hung it over the fire and it became tough.

## 2.5 Comparison and Intensification.

There are no comparative or superlative forms as such in Warray. Intensive forms are used, so that instead of forms such as "X is bigger than Y", forms "X is big, Y is very big" are found. There are a number of ways of forming intensives. The suffix -wirru properly may be used.

1. a-wulgan ngek-u-wu a-murdek-jang.gi ga-yiyn-yiyn

M-sibling 1sg-OBL-DAT Cl-big-very NP-PR-be NP

a-garla a-murdek-wirru ga-yiyn-yiyn

CL-3sg Cl-big-properly NP-PR-be NP

My brother is very big, (but) he is properly big.

This example also demonstrates the common way of expressing the concept very big -murdek-jang.gi. This involves use of a suffix -jang.gi, which is very frequent with -murdek, but which is otherwise attested only in the following.

2. al-garla al-dumarru-jang.gi

F-3sg F-old woman-very

She was really an old woman.

2 is difficult to translate. The force of the utterance is that the person referred to was a prime exemplar of the Aboriginal age-status class of old women. 2 shows that intensification is not restricted to adjectives. A third affixal method of forming intensives is with the prefix *diki-* really (c.f. 5.).

3.     *an-diki-durk-u ga-yiyn-yiyn*

Cl-really-white-OBL NP-PR-be NP

(She) is really white.

4.     *a-diki-walak mirral*

Cl-really-hot sun

The sun is really hot.

Reduplication of adjective roots and non-human noun roots creates intensive forms (Reduplication of human noun roots has a different function 3.6).

5.     *gijewek an-buru-buruyu an-ga-gan-ga-n*

beard Cl-R-long 2sgS-NP-PR-have-NP

You have a really long beard.

6.     *waynlak         waynla-waynlak*

now     right now

7.     *lukluk         luklu-lukluk*

hurry up     Come on and hurry up

## 2.6 Number Marking.

The major number marking system in Warray is that found in the pronominal prefixes (4.4). Kin nouns (1.) and pronouns (3.8) are the only nominal classes with systematic morphological marking of plurality. Other types of non-singular marking focus on set concepts rather than plurality.

A. *-nalak* [EOB] ~ *-nanak* [DW] : only, enough.

*-nalak* ~ *-nanak* indicates that the proposition conveyed by the text is delimited by the word it is suffixed to. As such this suffix is not in fact a number marking suffix, but it is more closely aligned with number marking (which

also has a delimiting function) than with any other system. Therefore it is analysed in this section.

1. girrangajerriyn amala girranglul-nanak bat-but-ga-ga-ngi  
three Neg two-only 1sgSNP-3plO-PR-have-A  
I do not (have) three (children), I only have two.

2. dayn?-mi an-jerriyn-nanak yumbal li-yn  
cut-Aux-PP Cl-one-only tree fall-PP  
(The axe)cut through in only one blow and the tree fell down.

3. gaging ngikba at-malak-li-liyn gaji-nanak  
yesterday night 1sgS-dance-Aux-PI that-enough  
Last night I danced for a long time. That is enough.

4. mimi jatbula amala gat-na-n marriwak-u-yang-nanak  
uncle old man Neg IRR1sgS-see-P long time-OBL-ABL-enough  
at-na-y bat-yajiyn bat-na-y mulgingla  
1sgS-see-PP 1sgSNP-go A 1sgSNP-see-A poor fellow  
wakmiwu ga-ni-ni  
alone NP-PR-sit  
I have not seen old uncle. It is a long enough time since I saw him. I  
will go and see him. Poor fellow, he is all alone.

It appears that -nalak is an exclusively nominal suffix. Attempts to elicit it suffixed to a VC were not successful. Thus He can only sing, he cannot dance can only be expressed by 5 and not by 6.

5. wirrin-nanak ga-wirrin-bu-n bin amala gan-nuw-i  
song-only NP-sing-Aux-NP but Neg IRR-dance-NP  
He can only sing songs, he cannot dance.

6. \*ga-wirrin-bu-n-nanak amala gan-nuw-i  
NP-sing-Aux-NP-only Neg IRR-dance-NP

Similarly

7. ngek-nanak at-na-y bunin ngal?-jim ngek-u-wu  
1sg-only 1sgS-see-PP ghost out-come 1sg-OBL-DAT  
Only I saw the ghost come out, (only) me.

appears to be the only possible way of presenting this statement.

8. \*at-na-y-nanak  
1sgS-see-PP-only

is not apparently an alternative.

B. -lul [DW] ~ -?lul [EOB] : pair.

-lul ~ -?lul is a suffix which indicates that the group of entities which it refers to is an aggregation of two subgroups. Normally it would be used with groups that consist numerically of two entities. However it can be used with groups that consist of more than two entities.

9. al-dumarru al-walin-miyi ba-yajiyn-lul  
F-old woman F-mother-DY 3plS-went-pair  
The old woman, the mother and the daughters, the pair of them went.

9 refers to a group of three people, a mother and her two daughters. \_lul is used as the group of three consists of a subgroup of the mother and a subgroup of the two daughters. It is not clear how far this use of -lul for groups which are numerically more than two extends, but it is probably the case that -lul is restricted to small groups in the general environ of numerical two. Certainly all other examples involve just two entities. In the available material -lul modifies the pronominal prefixes on an ergative basis (However c.f 17 following).

10. nyama in-ba-na-y-lul  
1dlinc 1/2plO-3plS-see-PP-pair  
They saw the pair of us.  
\*The pair of them saw us.

-lul is frequently used to form conjoined NPs.

11. ngek jugung-lul banini-nay-na-y ajang.gi dumgiga  
1sg aunt-pair 1plS->2ONP-R-see-A maybe sleep  
girranglul  
two  
Auntie and I, we will look after you, maybe for a couple of days.

12. gaku an-ga-nat-ji-yn jugung-lul bali-yajiyn-lul  
after 2sgS-NP-IO-say-NP aunt-pair 1plSNP-go A-pair  
ban-ga-ga-n bordaan

1sgO-NP-take-NP Darwin

You tell him that aunt and I are going, she is taking me to Darwin.

### C. Plurals and Collectives.

Apart from kin nouns and pronouns, there are only two nominal lexemes which have morphological plurals.

13. warri child warri-ba children\_

14. al-gulbe woman al-marndu-ba women

It would appear that the -ba suffix found with these two plurals is a variant of the kin noun plural -be. There are two productive ways of forming collective nouns in Warray. Collectives of noun roots with inherent human reference are formed by reduplication (2.).

15. jatbula jatbu-jatbula

old man R-old man

old man the old men

16. al-dumarrru al-duma-dumarrru

F-old woman F-R-old woman

old woman the old women

The other method of forming collectives is with the suffix -muk COLL. As a suffix it behaves in the same way as -lul pair. It modifies nominals, and the pronominal prefixes on an ergative basis. However when specifically questioned about the possibility of modifying the transitive Subject EOB stated that 17 would be acceptable.

17. nyama in-ba-na-y-muk

1dlinc 1/2plO-3plS-see-PP-COLL

They all saw us two.

Neither of my consultants gave forms such as 17 spontaneously though. Marking of collectivity is not found simply to mark plurality. The most common occurrences of both -muk and reduplication are in situations where a speaker is describing what a class of persons should do or did do. Thus in Text 2 on initiation where there are descriptions of what the various classes of kin relations do during an initiation ceremony we may observe the occurrence of both -muk and reduplication. The necessity of distinction between plurality and collectivity is shown most obviously by the collective marking of plural nouns.

18. al-marndu-ba-muk muya jela ba-barn-ga-n-iyn  
 F-woman-PL-COLL tucker yam sp 3plS-dig-Aux-UNM-PI  
 The women dug up jela yams.

19. nal gaji-n al-marndu-marndu-ba ga-yiyn-yiyn  
 man that-PRM F-R-woman-PL NP-PR-be NP  
 That man is always after women.

However there is a tendency for collective marking to be less frequent with plural nouns.

20. marriwaku wang an-bitbit-u ba-mayim nal-muk yikin  
 old days animal Cl-red-OBL 3plS-get PI man-COLL 1plexc PROM  
 al-marndu-ba muya i-ngum-bu-n-iyn bigirring-u  
 F-women-PL tucker 1plS-cook-Aux-UNM-PI 3pl-DAT  
 In the old days the men used to catch cattle and we women used to  
 cook the tucker for them.

In 20 the inherently plural noun al-marndu-ba is not marked with \_muk, whereas nal is. It is not apparently possible to form collectives on the inherently singular forms al-gulbe woman and warri child.

#### D. Numerals.

The following numerals occur in Warray.

an-jerriyn one  
 girrang-lul [DW] ~ girrang-?lul [EOB] two  
 girrang-a-jerriyn three  
 girrang?lul-girrang?lul [EOB] ~  
 yeli-girranglul [DW] four  
 (an-)nabat-jerriyn five

The only root particular to the numerals is -jerriyn one. All the other numbers consist of compounds of this and -lul pair, girrang-girrang a few, and nabat- hand. The compound form for three is unusual in that the class marker a- appears medially in the compound. No other compound in Warray conforms to this pattern (3.2.4). The Warray numeral system morphologically conforms to Hale's (1975 : 295 - 297) analysis of Australian numeral systems as indefinite determiner systems.

There are a number of ways of expressing the ordinal concept first. First in an entity sequence is expressed by yungay-yang front-ABL.

21. jatbula anaba yarrba-yang gelngaykmiyi-yn yungay-yang  
old man there far-ABL marry-PP front-ABL  
al-garla-wu  
F-3sg-DAT  
She was married to that old man from far away as her first (husband).

Yungay-yang is also rarely used with event sequences.

22. i-wayi-yn ju?mi bigin yungay-yang ba-yajiyin  
1plS-return-PP afternoon 3plFOC front-ABL 3plS-went  
We came back (late) in the afternoon. They had gone first.

However the normal way of marking first in an event sequence is to use the suffix -miyn (5.9.4). yitjmi before may also indicate at first.

23. ini-warli-n-iyn in-nga-m yitjmi amala  
1plS->2O-call out-UNM-PI 1/2plO-hear-PP before Neg  
gan-in-nga-n  
IRR-1/2plO-hear-P  
We kept on yelling out to you till you heard us, at first you did not hear us.

lurra-yang behind-ABL can convey the ordinal meaning last.

24. a-garla lurra-yang  
CL-3sg behind-ABL  
He is always last.

## 2.7 Case Marking

Case marking in Warray has adnominal, intraclausal and interclausal functions. Warray has six case markers.

1. -yi Ergative/Instrumental
2. -yiwu Comitative
3. -lik Locative
4. -ba Perlative
5. -yang Ablative
6. -wu Dative



The case markers mark a very wide and sometimes overlapping range of relationships and there is considerable variation in their occurrence patterns. This section is concerned with the range of semantic relationships they may indicate.

#### 2.7.1 -yi : Ergative/Instrumental.

-yi has two functions. One is to mark the Subjects of VCs, the ergative function; the other is to mark instrumentals. In its ergative function -yi is optional. In elicited material (consisting of one or two isolated clauses usually), ergative marking tended to occur in the following situations;

a) Two equal status 3rd person participants.

1. bu-m gurruwak-yi gaging anjalmi a-garla-yi bu-m  
hit-PP name-ERG yesterday in turn CL-3sg-ERG hit-PP  
gurruwak  
name  
David hit him yesterday and in return he hit David.

2. an-wak amba bu-m-wu-n nal genganawu-yi  
Cl-little where hit-PP-DAT-PRM man over there-ERG  
Which one of those kids did the man over there hit?  
lit. Where is the kid that the man over there hit?

An example without ergative marking is;

3. nal an-buruyu jik-m-iyn nal an-datjbik-u  
man Cl-tall fear-Aux-PP man Cl-short-OBL  
The short man fears the tall man.

b) Non-Human Transitive Subjects.

4. jap-lik burluk-ni-wiyn gan-yiny-u motika-yi bu-m  
road-LOC cross over-Aux-PP IRR-go irr-DAT car-ERG hit-PP  
He was going across the road when a car hit him.

5. ngirri-yi ban-bi-yn gaging  
dog-ERG 1sgO-bite-PP yesterday  
A dog bit me yesterday.

An example without ergative marking is;

6. mirral ga-dilmi-wu-n an-mewel  
sun NP-dry-fact-NP P-clothes  
The sun is drying the clothes.

The ergative can, however, occur in other situations,

7. ebing-yi ana-dayn?-mi an-bam  
who-ERG 2sgO-cut-Aux PP P-head  
Who cut you on the head?

though it is not common in circumstances other than the two mentioned. Most transitive Subjects are unmarked as the referential tracking systems will usually suffice to disambiguate Subject from Object (5.7.2). EOB used the ergative much more frequently than DW in elicited material.

In texts the ergative shows a quite different pattern of occurrence. It is found in clauses with a high transitivity value (Hopper and Thompson 1980), when such clauses have the following two functions;

1. Introducing important participants into the text.
2. Describing happenings which are significant in the story.

Thus it appears that ergative marking in texts has a discourse level function of indicating the presentation of important information in a text, whereas in the elicited material it has an intraclausal disambiguation function. Ergative marking is not restricted to transitive Subjects. There are two examples, both from Text 11 of ergative marked intransitive Subjects.

8. jatbula-yi gundi-yi-n-iyn an-wak mamam a-garla-wu  
old man-ERG play-Aux-UNM-PI CL-little daughter CL-3sg-DAT  
The old man used to play around with his young daughter. (lines 1 & 2)

9. yayn al-dumarru-yi ji-yi a-garla-wu  
come IMP F-old woman-ERG say-PP CL-3sg-DAT  
"Come up!" the old woman said to him. (lines 6 & 7)

8 and 9 approach closely a proto-typical transitive clause. 8 introduces one of the two major participants to Text 11, and 9 describes a significant event (the old woman telling the old man to climb the rope, which she intends to cut while he is climbing it, thereby killing him). There is also one example of an ergative marked intransitive Subject from elicitation.

10. nguk ju-yi ngirri-yi amala gan-ni-yn gaji-lik  
 shit shit-PP dog-ERG Neg IRR-sit-NP that-LOC  
 A dog shitted (there)! Do not sit there!

The ergative marking in this example appears to fall within the textual principles given. The ergative marked intransitive Subject occurs in a clause which could have what may be described as significant consequences. As there are only a small number of occurrences of ergative marking in the texts it is possible to list all occurrences.

a) Text 2 - Ergative marking occurs three times; on jatbula-yi in line 1, on al-duma-dumarru-yi in line 6 and on bulbul-yi in line 9. The first and second examples introduce a major class of participants to the text. The third example describes a significant event in the text.

b) Text 5 - Ergative marking occurs once on meningitj-yi in line 2. This clause is the most affective transitive clause in the text and describes a significant event in the text.

c) Text 11 - Ergative marking occurs three times; on jatbula-yi in line 1, on al-dumarru-yi in line 6 and again on al-dumarru-yi in line 9. These three clauses describe the crucial events in the story.

d) Text 12 - Ergative marking occurs twice in Text 12 (unpublished). Once on the clause describing the immediate cause of the main event in the text, and once on the clause describing that major event. Both clauses are transitive clauses with affected Objects.

Some of these examples clearly demonstrate that ergative marking in texts is not concerned with disambiguation or marking of non-human transitive Subjects.

11. barndi ga-ba-bula-n al-duma-dumarru-yi  
 armlet NP-3plS-make-NP F-R-old woman-ERG  
 The old women make armlets.

12. bulbul-yi jugung wetji bigirring-u ga-ba-wuk-mayn  
 mother-ERG aunt grandmother 3pl-DAT NP-3plS-carry-Aux NP  
 wek al-wulgan amala gan-ja  
 firewood F-sibling Neg IRR-eat  
 The mothers, the aunts, the maternal grandmothers get firewood for them (to cook for them). The sisters can no longer eat (with them).

In neither 11 nor 12 can there be any ambiguity as to the Subject of the clauses. A larger corpus of texts would be needed before it could be definitely established that the function of ergative marking in texts is to mark the introduction of important information. The functions of ergative marking in texts and the elicited material are rather different and do not appear to be reconcilable as being facets of some underlying supercategory of ergative marking function.

-yi behaves differently in its instrumental function from its ergative function. -yi is obligatory in the instrumental function. This is the ground on which the instrumental is distinguished from the ergative. 8 and 9 show that intransitive Subjects may be ergative marked. Given this fact, it is necessary to provide evidence that the two are in fact separate. Otherwise \_yi could perhaps be analysed as marking a class consisting of Actors and instrumentals. Some examples of instrumentals are;

13. ba-balawa-m wili an-durk-u-yi  
3plS-paint-PP house Cl-white-OBL-INS  
They painted the house white.

14. ngirri ga-ni-ni guw-iyn an-bik-yi  
dog NP-PR-sit tie-PP P-rope-INS  
I tied the dog sitting (there) with a rope.

15. jingayn Warray-yi bali-boy?-m-iyn an-nyi  
lily sp Warray-INS 1plSNP-tell-Aux-PP P-name  
We call the "red lilly" jingayn in Warray.

16. ga-dirri?-m-arl an-bart an-nebe-yi  
NP-crawl-Aux-NP P-knee P-hand-INS  
He is crawling on his hands and knees.

#### 2.7.2 -yiwu : Comitative.

-yiwu marks the following relationships.

##### a) Accompaniment.

1. al-wulgan-yiwu i-yajiyn bordaan  
F-sibling-COM 1plS-go PP Darwin  
I went to Darwin with my sister.  
lit. With sister, we went to Darwin.

b) "having"

2. ga-wayi-n wik-yiwu

NP-return-NP water-COM

She is coming back with water.

3. amala letbal gan-yayn al-garla-wu bulbul-yiwu

Neg close IRR-come NP F-3sg-DAT sick-COM

ga-yiyn-yiyn

NP-PR-be NP

Do not approach her. She is sick.

4. nal gijewek-yiwu genganawu ga-jim-in

man beard-COM over there NP-come-NP

The man with the beard is coming up over there.

c) Instrumental.

5. al-dumarru mutj-m-iyn lawa wik-yiwu

F-old woman mix-Aux-PP flour water-COM

The old woman mixed the flour with water (to make a damper).

6. loywa-yiwu ga-ba-balawa-n

red ochre-COM NP-3pls-paint-NP

They are painting (traditional designs on the boys) with red ochre.

7. an-mewel-yiwu gat-guwi-yi-n a-muku gaji

P-cloth-COM IRR1sgS-bind-refl-P Cl-good that

gat-yu bin amala matj nyim ngek-u-wu an-bam-lik

IRR1sgS-lie but Neg wind enter 1sg-OBL-DAT P-head-LOC

I should have bound up (my head) with cloth. If I had, I would have slept well, but I did not. The wind blew right into my head.

The common element to the use of -yiwu would appear to be association with of the marked entity with another, usually more important, entity. -yiwu overlaps the range of -yi in marking instrumentals. However instrumentals are predominately marked by -yi, with -yiwu being a relatively infrequent alternative. The COM is also used to form the emphatic form of the pronouns (3.8).

### 2.7.3 The Privative.

Only EOB used privative constructions. DW used the Negator *amala* as a modifier expressing lack of (3.1). The privative constructions used by EOB are formally nominal compounds (3.2.4), and not case marked constructions.

1.     *an-lung.ga a-wik-miyn dil-m-iyn*  
P-billabong Cl-water-PRIV dry-Aux-PP  
The billabong is waterless. It has dried up.

2.     *a-wang-warru*  
Cl-meat-PRIV  
(I am) meatless.

*-miyn* does not occur as an independent nominal root (though there is a formally identical, but presumably unrelated suffix *-miyn* first 5.). *\_warru* does occur as an independent nominal root meaning bad, but it cannot be compounded with this meaning. Instead a special compound form *\_jamiyn* must be used (3.2.4). When the form *-warru* is compounded it has the privative meaning shown in 2. The compound with *-miyn* is more common than the compound with *\_warru*, and may thus be taken to be the unmarked privative form.

#### 2.7.4 *-lik* : Allative/Locative.

This suffix indicates motion towards or being in physical proximity to an entity.

##### a) Allative.

1.     *manma-yajiyn lurlak-lik*  
1dInclSNP-go A shade-LOC  
We will go into the shade.

2.     *an-ngube gaji ga-bu?-m-arl-u banini-ga-ngi*  
P-foot that NP-swell-Aux-NP-DAT 1plS->2ndONP-take-A  
*a-gudangyi-lik ana-ga-na-n*  
Cl-clever-LOC 2sgO-NP-see-NP  
If that foot keeps on swelling up, we will take you to       the       doctors.  
He will have a look at you.

Allatives of place names are not normally case marked.

3.     *i-yajiyn gunaynjarr*

1plS-went Point Stuart  
We went to Point Stuart.

However rarely they do occur case marked.

4. amala gat-ji-jim-in bordaan-lik  
Neg IRR1sgS-H-come-P Darwin-LOC  
I never used to come to Darwin.

b) Locative.

5. girri-lik willi ngek-u-wu  
hill-LOC camp 1sg-OBL-DAT  
My camp is near the hill.

6. lurlak-lik bali-ni-ni-wiyn  
shade-LOC 1plSNP-PR-sit-A  
We are sitting in the shade.

7. ga-gulu-j-i wek-lik  
NP-stand-Aux-NP fire-LOC  
She is bending over the fire.

8. li-yn yul a-gutjgutj-u-lik  
fall-PP ground Cl-wet-OBL-LOC  
He slipped on the wet ground.

9. ngubat-yul bat-yajiyn jap-lik  
foot-ground 1sgSNP-go A road-LOC  
I am going along the road on foot.

10. lurra an-gibe-lik ga-ni-ni  
behind P-back-LOC NP-PR-sit  
It is behind your back.

11. dirri?-m-iyn-boy yumbal-lik an-wak-u  
crawl-Aux-PP-perl tree-LOC Cl-little-OBL  
The baby has crawled under the tree.

12. belam ga-dirri?-m-arl-boy jap-lik  
snake NP-crawl-Aux-NP-perl road-LOC  
The snake is crawling across the road.

The lexeme *camp le* has an irregular locative alternant *lerrik*. This form may function as a locative case marked form, and it may also function as a locational stem forming *lerrik-lik camp-LOC* and *lerrik-yang camp\_ABL*. Regular forms *le-lik* and *le-yang* also occur, though they are less frequent than the irregular forms. For EOB the masculine locative form of *big a-murdek-lik* has an alternate meaning equivalent to *-gubam lots*.

#### 2.7.5 -ba : Perlative

##### a) Perlative

1.     *bigin genganawu waykan-ba ba-gurditj-yajiyin*  
3plFOC over there high-PERL 3pls-round-go PP  
They went via/by the high (road).

2.     *motika ga-yiyn-yiyn genganawu anjalmi an-gibe-ba*  
car NP-PR-go NP over there in turn P-back-PERL  
The car is going over there in reverse via/by the back

-ba is usual but not obligatory in the perlative function.

3.     *waykan jap ba-jim ba-gurditj-jim minbuliyn-yang*  
high road 3pls-came 3pls-round-came place name-ABL  
They came round via/by the high road from Minbuliyn.

-ba is also rarely found marking allative/locative functions.

##### b). Allative

4.     *ngi-bayimi ba-yajiyin minbuliyn-ba*  
that way-side 3pls-go PP place name-PERL  
They went that side to Minbuliyn.

##### c) Locative

5.     *amala gan-getleng?-m-i ngek-u-wu-ba*  
Neg IRR-cough-Aux-NP 1sg-OBL-OBL-PERL  
Don't cough on me!

#### 2.7.6 -yang : Ablative.



This marker has a wide variety of uses. The common element to these various uses appears to be that it marks that something may be viewed as a source or origin.

a) Ablative.

1. ga-wayi-n bupal-yang  
NP-return-NP creek-ABL  
He is coming back from the creek.

2. ngal?-ni-yn lurlak-yang  
come out-Aux-IMP shade-ABL  
Come out of the shade!

3. ga-yirr?-mayn yumbal-yang  
NP-pull out-Aux NP wood-ABL  
He is pulling (nails) out of the wood.

a) Source.

4. angi le ngek-u-wu bipi-yang  
here country 1sg-OBL-DAT father-ABL  
This country is mine, from (my) father.

5. gaji amala ajang.gi a-wirrang ajang.gi Oenpelli-yang  
that Neg must be Cl-different maybe Oenpelli-ABL  
It cannot be them. It must be a different mob, maybe from Oenpelli.

6. at-ni-niyn al-marriyn-yang  
1sgS-stay-PI F-girl-ABL  
I stayed there from (when I was) a young girl.

7. waynlak at-gut-j-ang dumgiga-yang  
just then 1sgS-get up-Aux-PP sleep-ABL  
I just got up from sleep.

8. marriwak-u an-bik ba-mayim bunyi-yang waynlak-u  
old days-OBL P-string 3pls-get PI banyon-ABL now-DAT  
an-bik barrikut-yang amala bunyi-yang  
P-string white man-ABL Neg banyon-ABL  
In the old days they used to get string from banyon trees. Nowadays (  
(they get) string from the whites, not from banyon trees.

c) Causal.

9. giyak-bu-k bulbul-yang

sweat-Aux-PP sick-ABL

He is sweating from fever.

10. bulbul lagi-yn wik-yang a-gubam bi-ng

sick feel-PP booze-ABL Cl-lots drink-PP

He is sick from drinking too much booze.

In clauses a wide variety of entities may potentially be viewed as a source or origin. It appears that -yang can be used in place of any of the other case markers if an entity can be so viewed. Examples showing it overlapping into the ranges of the other case markers are;

a) Ergative

12. jugung-yang nat-butj-bu-m al-garla-wu

aunt-ABL IO-send-Aux-PP F-3sg-DAT

Her aunt sent her (the clothes).

b) Instrumental

13. ga-yurr-mayn wek yul-lik an-nebe-yang

NP-drag-Aux NP firewood ground-LOC P-hand-ABL

ga-nyil-arl lerrik-lik

NP-bring-NP camp-LOC

She is dragging the firewood along the ground by hand. She is bringing it to camp.

c) Locative

14. girri-yang at-ngubat-jap-m-iyn an-ngubat-bidiyn

stone-ABL 1sgS-foot-stub-Aux-PP P-foot-nail

I stubbed my toenail on the stone.

d) Dative

15. muya bali-mutj-ja-yn-lul ngek-u-yang

tucker 1plSNP-together-eat-A-pair 1sg-OBL-ABL

The tucker the pair of us are eating together is mine.

### 2.7.7 -wu : Dative.

This case marker has a very wide range of functions. At a clause level it marks purposives, benefactives and goals. It also marks predicate genitives. Adnominal genitives are restricted to pronouns. With pronouns the dative functions to some extent as a general oblique case marker, being also found in place of -lik and -yang (3.2.3). Interclausally the dative marks purposive relationships and adjunction (these functions are considered in 5.3.2.7 and 5.5.1). We should also note that the dative is found as a part of the VC inflections in the Infinitive (4.3.2.1), and that the oblique suffix found with nominals is derived historically from the dative (3.2.3). The dative unlike the other case markers has three allomorphs;

-yu which occurs after i final verb forms from the -ngi, -mi and -0 conjugations and the deverbal nominaliser -mi (4.), when the final i is not preceded by a palatal consonant.

-wu which occurs after all other vowel final stems and after bu-m the Set A form of the verb to hit.

-u which occurs after all other consonant final stems

In addition two nominals have irregular datives; a-buye smelly - an-buye-rru, and yebe lplinc - yaburru.

#### a) Purposive.

1. an-wak ga-nyi-bu-n muya-wu  
Cl-little NP-cry-Aux-NP tucker-DAT  
The kid is crying for tucker.

#### b) Benefactive.

2. wang ba-ji-yi ga-ba-nyil-arl yaburru  
meat 3plS-PRMise-PP NP-3plS-bring-NP lplinc DAT  
They promised to bring some meat for us.

#### c) Goal.

3. amala gan-may at-ji-yi al-garla-wu nyi-bu-m  
Neg IRR-get NP 1sgS-say-PP F-3sg-DAT cry-Aux-PP

"Do not touch it" I said to her and she burst into tears.

4. jim an-wak-u jen-wilik-m-iyn ngek-u  
come Cl-little-OBL tongue-poke-Aux-PP 1sg-DAT  
That kid came up and poked his tongue at me.

5. at-nabat-way?-m-iyn a-garla-wu  
1sgS-hand-wave-Aux-PP CL-3sg-DAT  
I waved at/to him.

d) Complements.

6. multji bat-yajiyn belam-u  
fear 1sgSNP-be A snake-DAT  
I am afraid of snakes.

7. bin-boy?-m-arl-ayn gule gaji girrang?lul-u  
3plO-tell-Aux-UNM-PI story that two-DAT  
He told me a story about those two.

e) Predicate Genitive.

8. ngirri jatbula-wu  
dog old man-DAT  
The dog belongs to the old man.

f) Adnominal Genitive

Only pronouns may form adnominal genitives.

9. bat-dirri?-m-iyn bat-ba-j-ang munjiwa  
1sgSNP-crawl-Aux-A 1sgSNP-search for-Aux-A knife  
ngek-u-wu  
1sg-OBL-DAT  
I am crawling around looking for my knife.

If the possessor is non-pronominal then a construction with a dative pronoun marking the genitive relationship occurs.

10. jatbula genganawu al-wulgan a-garla-wu jim na-y  
old man over there F-sibling CL-3sg-DAT come see-PP The old man over  
there's sister came and saw him.

lit. The old man over there his sister came and saw him.

11. le a-garla-wu a-murdek jatbula-wu le  
camp CL-3sg-DAT Cl-big old man-DAT camp

The old mans camp is big.

lit. His camp is big. The camp is the old mans.

2.7.8 -wanyu [EOB] ~ -wanyuk [DW] : like.

This suffix is not a case marker. However as it is a relational marker like the case markers it is most appropriately considered in this section.

1. laliyn an-wik abulangu-wanyuk ga-yiyn-yiyn an-dil?dil-u  
goanna P-skin crocodile-like NP-PR-be NP Cl-spotted-OBL  
Goannas have spotted skin like crocodiles.

In combination with the Negator amala, -wanyu is used to express dissimilarity.

2. ngek amala al-wulgan-wanyuk ngek barriyn-bu-m  
1sg Neg F-sibling-like 1sg 1sgS->2sgONP-hit-A  
an-ga-nyi-bu-n

2sgS-NP-cry-Aux-NP

Me, I am not like (my) sister. Me, I will hit you and you will cry.

-wanyu may not be suffixed to VCs. Instead the particle wayn like that, in that way is used (c.f. 5.).

## 2.8 Pronouns.

Table 3.2 : The Personal Pronouns.

sg	dl	pl
1 inc	nyama	yebe
exc	ngek	yikirring
2	nguyn	nigirring
3	a-garla	bigirring
F	al-garla	

The 1exc, 2 and 3 plurals all have irregular PRM forms (c.f. 5.9.1.). The expected forms do rarely occur.

yikirring-an	nigirring-an	bigirring-an
1plexc-PRM	2pl-PRM	3pl-PRM

However the usual PRM forms are the following.

yikin nigin begin

These three irregular PRM forms have a much greater frequency of occurrence than the PRM forms of the other pronouns. As one of the major reasons for the occurrence of free pronouns is for emphasis it is unsurprising to find morphologically marked PRM forms extending their range. The 3pl pronoun like all morphemes expressing the concept 3pl, can also express the indefinite notions someone/no-one (c.f. 4.4).

1. ngirri gaji amala bigirring-u gok ebing-u  
 dog that Neg indef-DAT Dont know who-DAT  
 That dog does not belong to anyone. Whose is he?

The 3rd singular root -garla patterns in terms of class marking as if it was an adjective (3.2.2). The al- prefixed form is possible only with human female referents. The a- prefixed form is possible with any class of referent including human females.

2. a-garla-nalak an-jerriyn ga-ni-ni al-garla-nalak  
 Cl-3sg-only Cl-one NP-PR-sit F-3sg-only  
 She is the only one (here).

Like all adjectives -garla cannot take the 0- class prefix, and like adjectives such as -murdek big, it is lexically restricted from taking the an- class prefix. Therefore non-human entities always take the a- prefixed form.

3. buku dul?-m-iyn a-garla-yiwu  
 gun burst-Aux-PP Cl-3sg-COM  
 The gun went off by itself.

Unlike the other pronouns, the 3rd singular is attested with modifiers, thereby showing further similarities to adjectives.

4. gaji a-garla bambutj-m-iyn Amungal-lik  
 that Cl-3sg born-Aux-PP Adelaide River-LOC  
 He was born at Adelaide River.  
 lit. That him was born at Adelaide River.

Despite its adjectival characteristics the 3sg pronoun undoubtedly classes with the other pronouns as it shares all their distinguishing characteristics. Two of the distinguishing characteristics of pronouns, their ability to function as adnominal genitives, and their occurrence with oblique stems are discussed in 3.7.7 and 3.2.3 respectively. Another characteristic of the pronouns is the use of COM marked pronouns as emphatic forms, apparently with a quasi-instrumental meaning (the COM suffix can mark instrumentals 3.7.2).

5.     ga-ja-bi-rl ngirri a-garla-yiwu  
NP-lick-Aux-NP dog Cl-3sg-COM  
The dog is licking (his paw) by himself.

6.     ebing ana-wu buku amba-yang  
who there-OBL spear where-ABL  
Who did you get that spear from?

at-bula-m ngek-yiwu buku  
1sgS-make-PP 1sg-COM spear  
I made that spear by myself

This use of the COM -yiwu in this function appears to be restricted to pronouns. There is only one example of another nominal which may have the COM in this function. The function of the comitative in this example is not entirely clear.

7.     in-ba-butj-bu-n-iyn i-yungoy-iyn le-yiwu  
1/2plO-3plS-send-Aux-UNM-PI 1plS-go-PI country-COM  
warri-ba i-bun-ga-n-iyn  
child-PL 1plS-3plO-take-UNM-PI  
Sometimes they would send us off. We would go by the country and take the kids.

It is possible that it is functioning in some emphatic instrumental sense similar to that shown in 5 and 6 but this is by no means certain. EOB also used a suffix -weleng self (?) only attested with pronouns, which from the limited examples of its occurrence appears to function in much the same way as -yiwu.

8.     duk-m-iyn a-garla-weleng  
crack-Aux-PP Cl-3sg-self  
It cracked by itself.

9.     an-garra lurlak bat-na-na-yi-yn ngek-weleng  
shadow 1sgSNP-PR-look-refl-A 1sg-self  
I am looking at my shadow myself.

Apart from their occurrence in this emphatic function with -yiwu and -weleng the pronouns do not normally occur to describe Subject or Object entities, as these are already covered by the pronominal prefixes. When they do so occur, free pronoun Subjects and Objects appear to have a purely emphatic function. Some examples of free pronoun Subjects may be found in Text 5 lines 3 and 4, Text 6 line 4, Text 8 lines 3 and 4, and Text 10 line1.

## 2.9 Definite Demonstratives.

This class includes the demonstrative pronoun, the demonstrative adverbs and certain demonstrative locationals and directionals. They are grouped together because they form part of a system based on two degrees of distance from the speaker.

1.     Proximate : the area including the speaker

2.     Non-proximate : everything else

Table 3.2 : The Definite Demonstratives

Proximate	Non-proximate
textual &	gaji
locational	that
locational	angi    ana [DW] ~ ngana [EOB]
here	there
place	ngirlak [EOB] ~ ngurlak [DW]    gaji-lik
this place	here    that place
anaba-lik	
the place	there
non-specific	angilak    ginganawu
over here	over there
directional	guta    ngiba
this way	that way

This demonstrative class obviously consists of a disparate set of roots which do not form a morphological class. As with any demonstrative system, usage is very much a matter of perspective and there is considerable overlap in the usage of forms in each class. The translations given for each demonstrative are



those which appeared to me from observation, as opposed to translation, to be the core meaning of that demonstrative. Most demonstratives show a fair range of usage form this core. It would probably take a fluent bilingual to give fully accurate English translations of the Warray demonstratives.

The definite demonstrative system is chiefly concerned with locational deixis, where rather fine distinctions are made. The definite demonstratives, other than gaji, do not play a major role in textual deixis and cohesion.

1. gaji : that.

gaji may be used in contextual deixis (pointing to things in the real world in which the speaker is situated) in the same way as all the other demonstratives.

1. ngirri gaji ga-wa?-wa-m-arl  
dog that NP-R-bark-Aux-NP  
That dog is barking.

2. gaji warri-ba girranglul al-wulgan-u  
that child-PL two F-sibling-DAT  
Those two kids are (my) sisters.

However it is the only demonstrative which may be used for textual deixis (pointing to things which are mentioned in a speech act, and which are not present in the real world context in which the speaker is situated).

3. amala gaji an-wat-m-iyn  
Neg that 2sgS-spoil-Aux-PP  
Not that way, you have spoilt it.

4. a-lil gaji ga-yiyn-yiyn ga-mok-mayn a-jamurru-yi  
M-boy that NP-PR-be NP NP-steal-Aux NP M-policeman-ERG  
ga-ba-ba-j-i gaji ga-ba-mayn ga-ba-guw-arl  
NP-3plS-search-Aux-NP that NP-3plS-get NP NP-3plS-lock up-NP  
If that boy keeps on stealing things the police will search for him and  
get him and lock him up.

There is no proximal counterpart of gaji. angi here is used when entities are physically proximate to the speaker. However entities such as temporals which are not so locationally viewed simply occur without a demonstrative.

5. ajang.gi ngikba a-larl-wa

maybe night Cl-cold-could be  
Maybe it could be cold tonight.

The ablative form gaji-yang then, therefore, and so, thus is used extensively in textual deixis (5.9.7).

2. angi : here.

angi translates both here and this (when it has a locational component, this = the one here).

6. angi yayn  
here come IMP  
Come here!

7. matj angi gan-gulu-j-i gok a-bili-gubam  
wind here IRR-stand-Aux-P Dont know Cl-hard-lots  
(I wish) this wind here would stop. I dont know, it is so strong.

3. ana [DW] ~ ngana [EOB] : there.

Three variants, ana, anaba and ana-wu of there occur. The basic root is ana which occurs chiefly as a bound form in compounds.

8. ana-ga-gulu-j-i  
there-NP-stand-Aux-NP  
The one standing there.

9. ana-ebing ga-jim-in  
there-who NP-come-NP  
Who is that coming up there?

While it is possible for ana to occur as a free form, the normal free form of there is anaba.

10. anaba gulu-j-i-jiyn merriyn  
there stand-Aux-UNM-PI pandanus  
There used to be a pandanus there.

anaba is the stem used whenever a case marker is added.

11. angi-yang at-mi ban-ba-wo-y anaba-yang amala

here-ABL 1sgS-got 1sgO-give-PP there-ABL Neg

I got it from this (mob) here. They gave it to me, not that (mob) there.

The oblique stem *ana-wu* is a rare variant found only in unsuffixed uses. As stated in 3.2.3 it is not clear what factors control its occurrence.

4. *ngirlak* [EOB] ~ *ngurlak* [DW] : this place here.

The distinction between this demonstrative and *angi* here is not easily drawn. It appears that it is slightly more specific than *angi*, indicating not just the general area of the speaker, but rather specifically indicating where the speaker is.

12. *bun-warli ga-ba-jim-in ngurlak*

3plO-call out NP-3plS-come-NP this place here

Call out to them to come here.

13. *le at-gubam-ji-yn ngurlak-yang*

country 1sgS-big-inch-PP this place here-ABL

I grew up from this country here.

14. *jatbula ju-m le ngurlak a-garla-wu*

old man die-PP station this place here Cl-3sg-DAT

This station used to belong to old man who have died.

5. *gaji-lik* and *anaba-lik*.

These two forms are morphologically analysable, and consist of *gaji* and *anaba* plus the locative case marker *-lik*. They mean that place and the place there, and are virtually interchangeable in use.

15. *an-ga-yiyn an-ga-na-n amala-wu-n le gaji-lik*

2sgS-NP-go NP 2sgS-NP-see-NP Neg-DAT-PRM place that-LOC

*an-ga-yiyn an-ga-ba-j-i ajang.gi gaji-lik yajiyn*

2sgS-NP-go NP 2sgS-NP-search-Aux-NP maybe that-LOC went

When you go if you do not see him at that place (Berrimah), you go and search. Maybe he has gone to that place (Anula).

16. *anaba-lik gut-m-iyn nguk*

there-LOC put-Aux-PP tobacco

He has put the tobacco in that place there.

6. angilak : over here, hereabouts, round here.

This demonstrative appears to be historically analysable as consisting of angi here and \*-lak, putatively the old form of the locative case marker -lik. As such it would be expected that it, rather than ngirlak would function as the proximal equivalent of gaji-lik and anaba-lik. However it appears to indicate a non-specific as opposed to a specific proximity and as such is the counterpart of ginganawu over there. angilak covers a wide range and in some cases the nuance of non-specificity is so slight that it becomes virtually indistinguishable from the specific angi and ngirlak, in much the same way that the use of over here and here shade into one another in English.

17. merriyn angilak ga-gulu-j-i nyama-lik  
pandanus over here NP-stand-Aux-NP 1dline-LOC  
There is a pandanus over here/here next to us.

In other cases only the non-specific translation is appropriate.

18. wili angilak jatbula-yang barrikut ju-m  
station hereabouts old man-ABL white man die-PP  
wung-ayn le  
leave-PP station  
All the stations hereabouts used to belong to the old white man. He died and left the stations.

This example contrasts with 14,

jatbula jum le ngurlak agarlawu  
This station here used to belong to the old men who have died.

where ngurlak restricts the description to the station here only. EOB used a locative case marked form of this demonstrative angilak-lik. The difference between the use of the case marked and un-case-marked forms is not clear.

7. ginganawu ~ ganganawu [EOB only] : over there/round there/ thereabouts.

ginganawu was the form of this demonstrative most commonly used by both my consultants. However EOB stated that there was also a variant ganganawu, which had been used as well. This demonstrative would appear to have been composed historically of the oblique form of there ngana-wu used by EOB, and a morpheme ga ~ gi, which apparently also occurs in the variant of this way gi-guta-wi?mi

used by EOB. Like angilak in relation to angi, ginganawu is often virtually synonymous with ana there.

19. gaji yuyu ginganawu ban-wu  
that leave it over there 1sgO-give  
I do not want that. Give me that one over there/there.

However as with angilak there are many occasions where a non-specific translation is required.

20. warri-ba ba-yang ginganawu  
child-PL 2pls-go IMP over there  
You kids, go over there.

8. gi-guta-wi?mi [EOB] ~ guta [DW] : this way.

guta indicates motion towards the speaker. As stated the variant used by EOB may involve the gi- morpheme found in ginganawu. The provenance of the -wi?mi suffix is uncertain. It appears to involve the \_(?)mi nominalising suffix (4.).

21. yayn guta angilak letbal ngek-u-lik  
come IMP this way over here close 1sg-OBL-LOC  
Come this way over here and (sit) close to me.

9. ngiba ~ ngila(-wart) : that way.

The root is historically \*ngi (still found in the compound ngi\_bayimi that side. c.f. 29 following). ngiba is the normal form with ngila(-wart) being a rare alternative in un-case-marked uses. ngiba describes motion away from or lateral to the speaker.

22. ngiba muya bambulangu-yiwu arriyn-jalak-m-iyn  
that way tucker lily sp-COM 1sgS->2sgO-show-Aux-PP  
gaji-woy gwiki an-nyi  
that-one of place name P-name  
That way, the place I showed you with the bambulangu lilies, Gwiki is  
the name of that place.

The ablative form ngiba-yang from that way is frequently used as an alternative to guta this way.

23. ngiba-yang ga-jim-in  
that way-ABL NP-come-NP  
He is coming from that way/this way.

10. -bayimi [DW] ~ -bay?mi [EOB] : side.

This lexeme compounds with various of the demonstratives to indicate this side and that side. This side is normally guta-bayimi, compounded with the directional guta this way, even if used in a locational sense, as in 24.

24. angi amala guta-bayimi angilak-nanak ban-ga-nun-nu-n  
here Neg this way-side over here-only 1sgO-NP-PR-burn-NP  
wek-wanyuk  
fire-like  
It does not hurt here, on this side. Only over here it burns me like fire.

25. gan-in-gubal-le-n guta-bayimi wut-m-iyn  
IRR-n3plO-nearly-shoot-P this way-side miss-Aux-PP  
He nearly shot us. (He fired) this side but he missed.

26. jim jap wul-m-iyn guta-bayimi ngal?-jim  
come road follow-Aux-PP this way-side out-come  
He followed the road and came up this side.

There is a separate lexeme an-gangilaki, which means this side of the river. That side is expressed in three ways; as either ana-bayimi, ngi\_bayimi or ginganawu-bayimi. These forms are presumably more specifically translated as;

ana-bayimi the side there  
ngi-bayimi the side that way  
ginganawu-bayimi the side over there

but in usage they are for all practical purposes synonymous and appear to be largely interchangeable. They also indicate the other side as well as that side.

27. bali-burluk-ni-wiyn ana-bayimi bali-yajiyn  
1plSNP-cross over-Aux-A there-side 1plSNP-go A  
We are going to cross over to that side/the other side

28. ginganawu-bayimi ni-yn ngek-u  
over there side sit-IMP 1sg-DAT

Sit down that side/the other side of me

29.   ngi-bayimi jap i-jim  
that way-side road 1plS-come  
We came on the road that side.

EOB also compounded this lexeme with a pronoun form once.

30.   yaburru-bay?mi la-m-guya jun-bu-m  
1plinc DAT-side shoot-PP-here miss-Aux-PP  
He shot our side, but he missed.

## 2.10 Interrogatives/Indefinite Demonstratives.

Warray has six interrogative/indefinites;

abing [EOB] ~ ebing [DW]       who  
nginyang    what thing  
yiliyn       how  
amba   where  
amba-wayin   when  
amba-amba ~ amba-?lul [EOB only]   how much/how many

Unlike many aboriginal languages these forms do not have an extensive indefinite use. They are chiefly used as interrogatives. When used as indefinite demonstratives they express a non-specific indefiniteness, "unknown". The specific indefinite categories no-one/someone are on the whole identified with the category 3 plural (3.8 & 4.4). However in sentential constructions an apparently conjunctive no-one form involving abing and a particle bulun none occurs.

1.    waynlak guyn gat-yiyn bin amala bulun ebing  
today M.O. IRR1sgS-go P but Neg none who  
gan-bun-na-na warri-ba  
IRR-3plO-R-look child-PL  
I thought I was going to go today but there is nobody else to look after  
the children.

The specific locative indefinite nowhere is similarly expressed by an apparently conjunctive combination of bulun and amba-lik.

2.    marriwak-u ba-jibiyn-bu-n-iyn le waykan-lik wik

old days-OBL 3plS-stay ages-Aux-UNM-PI camp high-LOC water  
a-gubam bulun amba-lik wik a-gubam le an-jerriyn-lik  
Cl-lots none where-LOC water Cl-lots camp Cl-one-LOC  
ba-yu-yiyn  
3plS-lie-PI

In the old days, every year they would stay for ages on the high ground.  
There was lots of water about and nowhere else to camp, because of all the water  
they had to camp together.

The general entity interrogative nginyang may indicate an unknown entity  
or reason.

3. gul-nginyang gaji ga-yu-yu  
S.O.-what that NP-PR-lie  
I do not know what that is lying (there)  
lit. I think what that lying (there).

4. nginyang-u ga-ba-bu-ji-n-lul  
what-DAT NP-3plS-hit- recip-NP-pair  
Why are the pair of them fighting?

gul-nginyang-u  
S.O.-what-DAT  
I do not know why.  
lit. I think why

There is a hesitation form nang.giyn whatchamacallit, with a corresponding  
verb nang.giyn-m-arl to do whatchamacallit (intr & tr).

1. abing : who.

abing may be used of domestic dogs as well as humans;

5. ebing ngirri nguny-u-wu  
who dog 2sg-OBL-DAT  
Which one is your dog?

2. nginyang : what thing and yiliyn : what way/how.

nginyang is a more general form than abing. abing can only be used of a  
referent which is definitely established as a human or a domestic dog. nginyang  
is the usual interrogative for domestic dogs and is the interrogative for all



other entities. It is also the interrogative for entities whose referential status is unknown;

6.     ana-nginyang ga-gulu-j-i  
there-what NP-stand-Aux-NP  
What is that standing there?

ajang.gi ngirri amala-wu-n nal-wa  
maybe dog Neg-DAT-PRM man-could be  
Maybe it is a dog, if not it could be a man.

nginyang can only be used when the speaker wishes to inquire about an entity associated with the situation described by the VC. If the speaker wishes to ask about the situation described by the VC itself then yiliyn how is used. The following examples show the different usages of the two forms.

7.     nginyang ga-mayn-mayn  
what NP-PR-get NP  
What is she doing?  
lit. What is she touching?

an-mewel ga-gemebijip-m-arl  
P-clothes NP-roll up-Aux-NP  
She is folding up clothes.

8.     yiliyn an-ga-jiyn-ji-yn  
how 2sgS-NP-PR-do-NP  
What are you doing?  
lit. How are you doing?

9.     jatbula nginyang ga-bula-n  
old man what NP-make-NP  
What is the old man making?

buku ga-bula-n  
spear NP-make-NP  
He is making a spear.

10.    yiliyn an-ga-bula-n bamuyn  
how 2sgS-NP-make-NP canoe  
How do you make a canoe?

11. an-nga-m yiliyn ji-yi  
2sgS-hear-PP how say-PP  
Did you hear what he said?  
lit. Did you hear how he said?

Both the dative and ablative forms of nginyang may be used to indicate why.

12. nguyn nginyang-u amala gan-ja  
2sg what-DAT Neg IRR-eat  
You, why arent you eating?

13. bul ga-ba-yami-ji-n-lul ajang.gi nginyang-yang  
trouble NP-3pls-argue-recip-NP-pair maybe what-ABL  
Those two are arguing. (We do not know) why.

It appears that nginyang-u is non-past oriented for what reason? and that nginyang-yang is past oriented from what cause?.

3. amba : where.

amba is one of the few morphemes that occurs both free and bound. It is normally bound when it occurs pre-verbally or in clause initial theme position, and free elsewhere. It has a variant ambala which occurs free in the positions where amba occurs bound.

14. amba-yajiyn al-wulgan ngek-u-wu  
where-go PP F-sibling 1sg-OBL-DAT  
Where did my sister go?

15. ambala yajiyn  
where go PP  
Where did he go?

16. an-wak nguny-u-wu amba  
Cl-little 2sg-OBL-DAT where  
Where are your kids?

When amba occurs case marked with the locative -lik it means in what place/whereabouts/somewhere.

17. amba-lik gut-m-iyn an-na-y  
where-LOC put-Aux-PP 2sgS-see-PP

Did you see in what place/whereabouts he put it?

18. an-mewel arriyn-wo-y an-ga-nan-na-n ngek-u  
P-clothes 1sgS->2sgO-give-PP 2sgS-NP-PR-see-NP 1sg-DAT  
at-ji-yi nguny-u-wu bin amba-lik an-lagi-yn  
1sgS-say-PP 2sg-OBL-DAT but where-LOC 2sgS-toss-PP  
Those clothes that I gave you to look after, I told you (they were)  
mine but in what place/whereabouts have you chucked them.

EOB used a form amba-boy which way (lit. where-along) involving the  
otherwise verbal suffix -boy along, perrelative.

19. amba-boy a-jim  
where-along 2plS-came  
Which way did you come?  
lit. Where did you come along?

amba is the unmarked interrogative/indefinite. It serves as the stem for  
the amba-wayin when and amba-amba ~ amba-?lul how much forms, and a wide variety  
of interrogative/indefinite inquiries and statements, beyond the purely  
locational, are expressed with amba. Thus instead of Who is that? it is more  
common to ask Where is X from?. In the following example the concept nobody else  
is expressed as amala amba\_yang not from anywhere else.

20. an-nebe at-dayn?-mi ngek-u-wu ngek amala  
P-hand 1sgS-cut-Aux PP 1sg-OBL-DAT 1sg Neg  
amba-yang ngek-nanak an-nebe at-dayn?-mi  
where-ABL 1sg-only P-hand 1sgS-cut-Aux PP  
I cut my hand, me, nobody else, just me, I cut my hand.

What kind/like? is normally expressed with amba.

21. amba-wanyu jibak an-mi  
where-like fish 2sgS-got  
What kind of fish did you get?

22. gok an-dum an-gimitj amba-wanyuk ga-yiyn-yiyn  
Dont know P-eye P-face where-like NP-PR-be NP  
I do not know what he looks like.

A form based on nginyang what is also rarely attested.

23. nginyang-wanyuk ga-yiyn-yiyn an-gimitj  
what-like NP-PR-be NP P-face  
What does she look like?

amba is the normal interrogative in which questions.

24. an-wak amba bu-m-wu-n nal  
Cl-little where hit-PP-DAT-PRM man  
a) Where is the child the man hit?  
b) Which one of those children did that man hit?

abing who is a possible, though not common, alternative.

25. al-marndu-ba ebing-yi in-warli-yn  
F-woman-PL who-ERG 1/2plO-call out-PP  
Which one of those women called out to us?

4. amba-wayin : when.

This interrogative is a cranberry compound based on amba. The form \_wayin does not occur elsewhere in Warray. However a cognate form is found in the related Jawoyn language. The Jawoyn word for where is gurni, which is unrelated to amba, but when is gurni-wayen, with a -wayen morpheme that would appear to be related to -wayin found in Warray.

26. ambawayin ga-wayi-n ajang.gi ga-ni gaji-lik  
when NP-return-NP maybe NP-stay that-LOC  
When will she come back? Maybe she will stay there.

5. amba-amba ~ amba-?lul [EOB only] : How much, How many.

The reduplicated form amba-amba is the commonest interrogative for quantity of mass, being used by both my consultants.

27. warri-ba amba-amba bun-ga-gan-ga-n  
child-PL how many 3plO-NP-PR-have-NP  
How many children do you have?

28. bok amba-amba an-mi an-jerriyn  
honey how much 2sgS-got Cl-one  
How much honey did you get this time?

However EOB used the amba-?lul form involving the -?lul pair suffix (3.6) as frequently than she used amba-amba. DW once used a reduplicated form of yiliyn how instead of the usual amba-amba form.

29. yili-yiliyn bun-ga-gan-ga-n  
R-how 3plO-NP-PR-have-NP  
How many (children) do you have?

There is no specific interrogative for quantity of time How long. Normally a construction of the type;

30. yajiyn ga-ni ambawayin ga-wayi-n  
went NP-stay when NP-return-NP  
How long will he stay?  
lit. He went. He will stay. When will he return?

with a "when was/will the endpoint of the situation be" type clause is used. A rare alternative is;

31. ambawayin an-ni-niyn an-wak  
when 2sgS-stay-PI Cl-little  
How long did you stay there as a child?  
lit. When were you staying (there) as a child?

where ambawayin is combined with an imperfective verb form expressing duration (4.8.2).

## 2.11 Temporals.

Temporals may usefully be divided into three groups. The first group consists of those temporals which have today as a reference point.

-marriwak a long time ago, in the old days  
gaging-ba ~ the day before yesterday, a few days  
gaging-ba-woy ago  
gaging yesterday  
gaging ngikba last night  
waynlak today, nowadays  
larriwu [DW] ~ lorriwu [EOB] tomorrow  
larriwu-jerriynba [DW] ~ the day after tomorrow, in a few lorriwu-  
jerrinyba [EOB] ~ days time  
lorriwu-yi [EOB only]

The second group of temporals are those which describe a specific period of time without necessarily referring to a specific point in time.

ngikba           night  
ngikba-yang morning  
jow?mi(-wu) [EOB] ~ ju?mi [DW]           afternoon, evening  
jandi week (probably from English   Sunday)  
jibiyn           year, wet season  
buyn.garrang       end of wet/start of dry

All of these terms without further specification may refer to tonight, this morning etc. With the temporals referring to parts of the day it is possible to add waynlak today to specify that this afternoon etc is intended. This is quite common with jow?mi but rare with ngikba and njikbayang. There is no word for day as a period of time in Warray. Instead dumgiga sleep is used.

1.     ngek jamuyn-lul banini-nay-na-y ajang.gi dumgiga  
1sg grandfather-pair 1plS->2ONP-R-see-A maybe sleep  
girranglul  
two  
Grandfather and I will look after you, maybe for a couple of days.

The Warray appear to have counted the passage of years by counting wet seasons.

2.     jibiyn ngurlak i-jim-in-iyn i-ni-niyn  
year this place here 1plS-come-UNM-PI 1pS-stay-PI  
le i-jibiyn-bu-n-iyn  
camp 1plS-stay ages-Aux-UNM-PI  
We used to come here every year and stay for ages.

The third group of temporals consists of those words which relate one point in time to another.

yitjmi           before/already  
waynlak       now, just then, soon  
gaku ~ gakuy       after

The form waynlak has a wide range of meanings now, just then, soon, nowadays and today. Given this range its meaning would appear to be best defined as close to/the same as now/today. In addition to the simple form waynlak there

is a reduplicated form waynla-waynlak and an idiomatic phrasal lexeme waynlak angilak (lit now/today over here ). These two derived forms in general function as emphatic equivalents of the simple form in the close to/the same as now range of meanings. However waynlak angilak is also attested meaning then, at that time with a temporal reference point that is neither now nor today.

3. at-na-y waynlak angilak gok amba-lik ba-ga-ngi  
1sgS-see-PP then Dont know where-LOC 3plS-take-PP  
I saw it then (earlier today). I do not know where they took it.

4. a-wulgan ngek-u-wu a-garla-miyn wirrin-bu-m  
M-sibling 1sg-OBL-DAT NF-3sg-first sing-Aux-PP  
wirrin waynlak angilak  
song then  
My brother was the first to sing then (last night).

Yitjmi expresses the concepts before, at first and already.

5. at-but-mi yitjmi-yang  
1sgS-get water-Aux PP before-ABL  
I have already got the water.

6. yitjmi at-yu-yiyn bupal-lik waynlak amala wik ga-wuli-yn  
before 1sgS-lie-PI creek-LOC now Neg rain NP-rain-NP  
My camp was down at the creek before but not now it is raining.

7. bordaan yajiyn yitjmi Berrimah-lik yajiyn  
Darwin went before Berrimah-LOC went  
He went to Darwin but he went to Berrimah first/ before.

gaku ~ gakuy has a number of functions. Its unmarked use is to indicate later.

8. gakuy bat-yajiyn  
after 1sgSNP-go A  
I will go later/afterwards.

However it often simply indicates temporal reference after the time of the speech act.

9. gakuy bat-nat-ji-yi an-ga-yiyn  
after 1sgSNP-IO-say-A 2sgS-NP-go NP

Afterwards I will tell that you are going.

It can occur with waynlak, the combination of the two meaning soon after.

10. waynlak le ga-nu-n gakuy  
soon country NP-burn-NP after  
Soon all the country will be burning.

For the other functions of gaku ~ gakuy c.f. 5.9.3. The only case marker systematically attested with the temporals is the Ablative. When it occurs with a temporal it indicates that the situation involving the temporal has a continuing relevance, and as such frequently causes a clause to have a perfect interpretation as a comparison of 11 and 12 demonstrates.

11. gaging at-jim  
yesterday 1sgS-came  
I came here yesterday.

12. gaging-yang at-jim  
yesterday-ABL 1sgS-came  
I have been here since yesterday.

However in other cases it simply indicates present relevance.

13. le marriwak-u i-yu-yiyn gaji-lik  
camp old days-OBL 1pls-lie-PI that-LOC  
We used to camp there in the old days (Minbuliyn).

14. le marriwak-u-yang i-yu-yiny-u  
camp old days-OBL-ABL 1pls-lie-PI-DAT  
That is where we used to camp in the old days.

In 14 the fact of camping there in the old days is of continuing relevance as it is serving as the defining characteristic of a particular place at the present time. In addition to ablative marking EOB also occasionally used instrumental marking with apparently the same significance.

15. jibiyn an-jerriynba-yi amala gat-na-n-u gaji-n  
year Cl-other-INS Neg IRR1sgS-see-P-DAT that-PRM  
I have not seen that fellow since last year.



\_Mature specimens of the king and western brown snakes have large heads. This particular name for brown snakes (there are other names) refers only to such specimens.

\_ This tree has bright red stalks

\_ This tree has rough dark red-grey to black bark to half trunk height, with smooth white bark on the upper trunk and branches

\_ There is cultural evidence that this form is synchronically analysable. This snake sp lives in trees and is liable to drink the milk from young girls' breasts at night. It would appear likely that there is a relationship between this cultural connection to the feminine and the occurrence of the lexeme dillybag in the compound.

\_Both my consultants used this plural form. However only EOB used the singular. DW used the adjective an-wak little to convey the singular meaning child.

### 3. VERBAL LEXEMES AND VERBAL CATEGORIES

In Warray, as in other prefixing languages, Verbal Complexes are the most morphologically complicated words. There are three obligatory elements in VCs : the verbal predicate, minimally expressed by a verb root; the pronominal prefix complex, which conveys information as to the person and number of the Subject and Object of the verbal predicate; and the aspect/mood/tense suffixes which in combination with the three prefix complex sets convey information about aspect, mood and tense. In addition to these basic elements Warray, like other Gunwiyn.guan languages, shows a strong tendency to compound or affix other types of information (adverbs, body parts, directionals) into the VC. VCs have the following structure in Warray.

Pronominal Prefix Complex + (Indirect Object) + (Adverb) + (Noun) + Root + (Auxiliary) + (Reciprocal/Reflexive) + Aspect/Mood/Tense Suffixes + (Directional/Motional Suffixes)

The pronominal prefix complex shows a complicated and somewhat irregular internal ordering of Subject and Object morphemes which is examined in 4.4 In this grammar the term Verb refers to the following set of VC constituents.

(Adverb) + (Noun) + Root + (Auxiliary) + (Reciprocal/Reflexive) + Aspect/Mood/Tense Suffixes

This chapter is concerned with the structure of verbal lexemes and the aspect, mood and tense categories marked in the VC. The term lexeme refers to verbs requiring dictionary entries; viz mono-morphemic forms and non-predictable compounds. Productive compounding (i.e. incorporation of nouns and adverbs 5.) and intransitivisation (reciprocal/reflexive 5.) are examined in the following chapter as these processes are centrally concerned with grammatical relations.

#### 3.1 The Verbal Lexeme System.

The Warray verbal lexeme system conforms to the pattern found throughout the north-central and north-western areas of Australia. There are a small number of mono-morphemic lexemes (hereafter simple verbs), invariably consisting of a verb root, which are capable of taking the aspect/ mood/tense suffixes directly. The great majority of verbal lexemes are however compounds consisting of either a nominal or a verbal root and an auxiliary. Most of the auxiliaries also occur as independent (usually mono-syllabic) verbs.

Compounding of roots and auxiliaries to form verbal lexemes is a productive process, though it shows a fair degree of lexicalisation. It is in

most cases possible either to assign a specific meaning to a root or to discern a common element of meaning to the various occurrences of a root.

juluk-j-ang to spill (intr)

juluk-m-arl to spill (tr)

The root *juluk* is clearly to be assigned the predicate meaning *spill*. The choice of different auxiliaries serves to derive a transitive/ intransitive verb pair. This is the normal method of forming such pairs.

jul?-j-ang, jul?-ni to go down

jul?-m-arl to fish; to dip [DW only]

jul?-nik-b-arl to put down, to drop off

The root *jul?*, while it cannot be assigned a specific predicate meaning as *juluk* can be, is associated with the concept of downwards movement. With *jul?-j-ang*, *jul?-ni* and *jul?-nik-b-arl* this concept is directly present. With *jul?-m-arl* the concept is less obvious. For DW this verb has two meanings to dip and to fish, which suggests that the concept of downwards motion into water is relevant. For EOB this verb has only the to fish meaning, and it is not clear that any downwards motion concept is present.

There is evidence that the assignment of predicate meanings to roots has psychological reality for speakers. The most direct evidence for this is a comment made by EOB concerning the following example.

1. bin-ga-gundi-wu-n

3plS-NP-laugh-Aux-NP

He is laughing at them.

She commented "gundi mean laugh". Further for EOB adjectives may be productively derived from verb roots by reduplication (3.). For both EOB and DW verbs belonging to the dominant *-m-arl* conjugation (4.6), most frequently *li(?)li-m-arl* to run, sometimes occurred with the auxiliary being omitted.

2. gaji warri-wak-u ga-li?li

that child-little-OBL NP-run

That child is running.

Phonologically compound verb roots are a distinctive class (2.), and they serve as a domain for iconic reduplication (4.7). The combination of these various factors argues that speakers do indeed treat compound verb roots as a distinctive predicate class.

The *jul?* verb set demonstrates that the choice of different auxiliaries is not necessarily contrastive (*jul?-j-ang* and *jul?-ni* mean the same thing). However the choice of different auxiliaries is usually contrastive, but not normally in terms of an auxiliary having its own specific predicate meaning as an auxiliary. Table 4.1 lists the auxiliaries presently attested, their frequencies and their meaning as independent forms if they so occur.

Table 4.1 : Auxiliary Verbs.

-m-arl	69 (intr)	
	59 (tr)	
-lili-m-arl	to run	1 (tr)
-b-arl	4	
-nik-b-arl	to put up	1 (intr)
	10 (tr)	
-ja-rl	to eat	2 (tr)
-bi-rl	to drink	2
-lagi-rl	to toss	1 (tr)
-bu-m	to hit	6 (intr)
	28 (tr)	
-la-m	to spear	1 (intr)
	6 (tr)	
-wo-y	to give	7 (tr)
-na-y	to see	2 (tr)
-ga-ngi	to take	4 (intr)
	8 (tr)	
-j-ang	to stand	10 (intr)
	1 (tr)	
-yu-ng	to lie	3 (intr)
-mi	to get	5 (intr)
	18 (tr)	
-ji-yi	to talk	1 (intr)
-jim	to come	2 (intr)
-ni	to sit	3 (intr)

-li 2

-gayi-yn 1

-nayi-yn inch 1 (intr)

-ji-yn inch 1 (intr)

-yi-yn refl 2 (intr)

EOB only

-guw-arl to tie 1 (tr)

-wayi-yn to return 1 (intr)

Most of these auxiliaries, as previously stated, also occur as monosyllabic simple verbs, which is a very common pattern in northern Australia. Somewhat unusually the Warray auxiliary system includes a few forms which are themselves compound verbs, most importantly -nik-b-arl, which is a fully productive auxiliary.

In most cases there is little or no connection between the meaning of the auxiliary as an independent form and its occurrence in a compound. Approximately half the compound verbs (128/258) take the -m-arl auxiliary, which does not occur independently. The verbs taking a particular auxiliary do not in general form a natural semantic class. Taking the verb la-m to spear as an example, we find that it occurs as an auxiliary in the following compound verbs.

girliyn-la-m	to line up (intr)	dit-la-m	to pinch
gi-la-m	to pour, to water	jat-la-m	to poke
jitj-la-m	to point	mu-la-m	to have intercourse
bok-la-m	to rub string (irr)		[DW only]

While some idea of piercing or aiming appears to be common to most of these verbs, it is of the vaguest and most general kind. It is not at all obvious that even this vague commonality could be said to be present with bok-la-m to rub string. Further verbs such as jap-m-arl to stab, and wut-m-arl to aim, which would have to belong to any aiming/piercing natural class take another auxiliary. Therefore the verbs taking the \_la\_m auxiliary cannot be said to be a natural class. This pattern is quite typical of all the auxiliaries.

However if an auxiliary has an independently identifiable meaning, then there is a strong general correlation between the independently identifiable transitivity of that particular form and the transitivity of the compounds taking it as an auxiliary (c.f. Table 4.1). This would suggest that the transitivity value of the independent form is the unmarked transitivity value of the auxiliary, and that this transitivity value is the contribution of the

auxiliary to the meaning of the compound. As we have already stated the normal method of forming transitive/intransitive verb pairs is by using different auxiliaries to the same root. This would appear to be the only contribution of most auxiliaries, but some of them have identifiable functions beyond simply providing a transitivity value.

This is most clearly the case for the auxiliary -nik-b-arl to put up. This auxiliary contributes not merely a transitive value to the compound, but functions as a causative transitiviser. With nominal roots \_nik\_b\_arl is one of the three auxiliaries which may be systematically used to form factitives (which are formally compound verbs in Warray 3.4). With verb roots -nik-b-arl is used to form the causative partner in many inchoative/causative pairs.

Intransitive		Transitive
barlng?-j-ang	to stick	barlng?-nik-b-arl to stick
barrak-bu-m	to spread	barrak-nik-b-arl to spread
dil-m-arl	to dry	dil-nik-b-arl to dry

The second auxiliary which may systematically be used to form factitives is -wo-y to give. In this factitive forming function it naturally has a consistent causative function. However in its occurrence with verb roots it does not show any consistent causativising pattern, though its compounds are normally transitive.

gundi-yi-yn	to laugh	gundi-wo-y	to laugh at
mal-ja-rl	to eat poison	mal-wo-y	to poison
walng?-m-arl	to hang out (intr)	walng?-wo-y	to hang out (tr)

The third factitive auxiliary is -m-arl which is used to form adjectival factitives.

-gubam	big	gubam-m-arl	to raise someone
-jakmi	straight	jakmi-m-arl	to straighten
-jamiyn	bad	jamiyn-m-arl	to badden

The -bu-m to hit auxiliary productively acts as a denominaliser for nouns. -bu-m does not show an entirely consistent predicate meaning in this function.

jibiyn	year	jibiyn-bu-m	to stay for ages (intr)
[to make it years?]			
melang	light	melang-bu-m	to shine
[to make a light]			
wek	fire	wek-bu-m	to make a fire (intr)

an-wik	skin	wik-bu-m	to skin [EOB only]
wirrin	song	wirrin-bu-m	to sing [to make a song]

However the glosses (including the [] glosses) suggest that to make noun X is the basic meaning of -bu-m as a denominaliser. The creation of the following new denominal compound by EOB provides reasonably solid evidence that this is indeed the basic, and certainly the productive, meaning of -bu-m as a denominaliser.

deyp	tape	deyp-bu-m	to tape, to make a tape
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Essentially it would appear that in the verbal compounding system the auxiliaries function as verbalisers, verbalising either nominal roots or verb roots. It is likely that historically many verb roots occurred independently as particles. In other Gunwiynguan languages Jawoyn (Merlan), Ngandi (Heath 1978 : 90 - 91) verb roots may occur independently in discourse. They are not presently so attested in Warray (however c.f. 2), but given the limited textual material available the possibility of a similar phenomenon cannot be dismissed. There is some internal evidence for the compounding of independent particles. The particle gel married occurs as a free form.

3.     gaji gel a-garla-wu amala  
        that married Cl-3sg-DAT Neg  
        She is not married to him.

It also occurs in the verb gel-ngayk-mi-yi-yn to be married (ngayk-mi-yi-yn is the reflexive form of the verb ngayk-m-ar1 to keep, to wait for, to look after ). The adverb wok heavily is found as a modifier to the verb ngir?-m-ar1 to breathe. It may occur as a free form in a particle + verb construction, or prefixed to the verb.

4.     amala gan-wok-ngir?-m-i gulube-yi an-gi  
        Neg IRR-heavily-breathe-Aux-NP cold-INS P-nose  
        a-gubam ajang.gi ga-gan-ga-n  
        Cl-lots maybe NP-PR-have-NP  
        He cannot breathe properly from a cold. Maybe his nose has lots of  
        (mucus).

5.     wok ga-ngir?-m-ar1  
        heavily NP-breathe-Aux-NP  
        He is snoring.

The verb root *mot* to be quiet, is normally found in the compound verb *mot-m-arl* to be quiet. However it is also found in the two following imperatives.

6.    *mot-ji*            you (sg) shut up!  
      *be quiet-say*

7.    *mot-ba-ji*    You (pl) shut up!  
      *be quiet-2plS-say*

6 would be the regular singular imperative of an unattested compound verb *\*mot-ji-yi* (*ji-yi* to say ). However the plural imperative form in 7 shows an irregular ordering. The regular plural imperative of a putative verb *\*mot-ji-yi* would be *\*ba-mot-ji*. This argues that historically an independent particle *mot* to be quiet has been compounded to the inflected imperatives of the verb *ji-yi* to say.

Verbal compounding in Warray is not limited to the compounding of roots and auxiliaries. Adverb and noun incorporation are also compounding processes which produce verb stems. Incorporation differs from the compounding of roots and auxiliaries in a number of ways (c.f. 5.).

1.    In incorporation the verb maintains its independent predicate meaning and does not simply function as a verbaliser.

2.    Incorporated nouns show an inner locative argument relationship to the verb.

3.    Incorporated forms fall within the scope of iconic reduplication.

4.    Incorporation shows only a minimal degree of lexicalisation (e.g. *ngarndi-wul-m-arl* to chase [lit. throat-follow]).

Nevertheless the possibility of lexicalisation and the fact that incorporated forms fall within the domain of habitual/progressive verbal reduplication (4.7) show that incorporation is a compounding process which forms verb stems. The following sets of motional and positional verbs provide a particularly clear illustration of the fact that incorporation and the verbalisation of roots by auxiliaries are sub-types of the same compounding process.

8. a) *burluk-jim*   b)    *burluk-yang*   c)    *burluk-ni*  
     *across-come*   *across-go*   *across-sit*  
     *to come across*    *to go across*        *to go across*

9. a) *gurditj-jim*   b)    *gurditj-yang*        c)    *gurditj-m-arl*  
     *around-come*   *around-go*    *around-Aux*



to come around      to go around      to go around

10. a)          dirri?-jim   b)          dirri?-yang   c)          dirri?-m-arl  
crawl-come   crawl-go      crawl-Aux  
to come crawling   to crawl      to crawl

11. a)          ngal?-jim   b)          ngal?-mi      c)          ngal?-ni  
out/up-come out/up-get   out/up-sit  
to come out/up      to get out/up      to come out/up

12. a) lili-jim   b)          lili-m-arl  
run-come      run-Aux  
to come running   to run

13. a) mok-yang   b)          mok-lili-m-arl      c)          mok-mi  
away-go          away-run-Aux          away-get  
to run away to run away to steal

14. a)          wirriyn?-yang      b)          wirriyn?-m-arl      c)          wirriyn?-ga-ngi  
walk-go          walk-Aux          walk-take  
to walk around      to walk around      to take someone for a walk

15. a)          duwak-yu-ng   b)          duwak-gut-m-arl  
across-lie   across-put-Aux  
to lie across      to put across

Taking 8 the verbs burluk-jim to come across and burluk-yang to go across are analysed as consisting of an incorporated adverb + a verb, because jim to come and yang to go maintain their independent predicate meanings. However the verb burluk-ni to go across is analysed as a root + an auxiliary, because ni to sit does not maintain its independent predicate meaning. The same principles may be applied to the other examples. It is of interest to note that whenever a particular verbal meaning such as to go across can be expressed by either an adverb + verb, or a root + auxiliary construction, that the root + auxiliary construction is much more frequent (i.e. burluk-ni is much more frequent than burluk-yang). The only exception is 10 where ngal?-jim and ngal?-ni express to come out/up with approximately equal frequencies.

### 3.2 Reflexive and Reciprocal Stems.

The following conjugations show special stems for the reciprocal and reflexive suffixes -ji-yn and -yi-yn.

1. Verbs taking -arl as the Unmarked Suffix, show a reflexive/reciprocal stem Root + (Aux) + i-.

2. The verb la-m to spear and its compounds show a reflexive/reciprocal stem in (-)li-.

3. The verb mi to get and its compounds show a reflexive/reciprocal stem in (-)mi-.

### 3.3 Overview of Verbal Categories.

The major verbal category distinction in Warray is that between what may be described as Realis and Irrealis verb forms. The Realis category consists of actualised events and positive future events whose realisation the Speaker is not uncertain of. The Realis is thus concerned with positive events whose realisation the Speaker is not uncertain of. The Irrealis category is concerned with all other events : negative events, events whose realisation the Speaker is uncertain of, and non-future positive unrealised events. The Irrealis is marked by a prefix gan- in the prefix complex, synchronically factorable in most forms but only historically factorable for some forms (4.4.1).

Within the Realis a mood distinction is made between Imperative, Hortative and Indicative forms. The Realis Indicative and the Irrealis make a distinction between Past and Non-Past forms. The distinction between Past and Non-Past is complicated, and is discussed in detail in 4.8.1 For present purposes it is sufficient to note that all verbs take the same forms in the past and future, but in the present considerations of verb class (stative, inchoative, other) and aspect (perfect, perfective) play a role in determining marking patterns. Present perfects and perfectives tend to take the same marking as past tense verb forms whereas other presents take the same marking as future tense verb forms.

Within the Irrealis the major distinction is between positive and negative forms. Negatives are phrasal forms involving the negator amala. Without the negator Irrealis VCs are interpreted as positive. With the negator they are interpreted as negative.

Within the categories established by the preceding distinctions the following further distinctions are made. The Past Negative is divided into Habitual (marked by habitual/progressive reduplication 4.7) and Non-Habitual (unmarked); The Realis Indicative Past is divided into Perfective and Imperfective (4.8.2); The Realis Indicative Non-Past is divided in a not entirely consistent manner into Present and Future by habitual/progressive reduplication (4.7).

As is common among inflectional languages there is in general no one to one correspondance between particular categories and their morphemic exponents. In Warray they are marked by complicated interactions of the following factors.

1. The three pronominal prefix sets
2. The verbal suffixes - there are up to five different suffixes.
3. Reduplication of portions of the VC.
4. Phrasal combination with particles.

The following table gives sample forms from two example verbs *gut\_m-arl* to put (down) and *na-y* to see, to look which show the combinations (the items in bold type) of morphemes expressing each category.

Table 4.2 : Realisation of the Mood, Mode, Tense and Aspect Categories.

Non-Past Positive Irrealis (NPPIRR)

*gali-gut-m-i, gali-na*

We might put it down/see him

Non-Past Negative (NPNeg)

*amala gali-gut-m-i, amala gali-na*

We can/will/should/ought not put it down/see him, We are not putting it down/looking at him, Lets not put it down/look at him

Past Positive Irrealis (PPIRR)

*gali-gut-m-arl, gali-na-n*

We were going to/wanted to/tried to put it down/see him, We should have put it down/seen him, we nearly put it down/saw him

Past Non-Habitual Negative (PNHNeg)

*amala gali-gut-m-arl, amala gali-na-n*

We did/could/not put it down/see him, We should/could/ought not to have put it down/seen him, We have/had not put it down/seen him, We was not putting it down/looking at him.

Past Habitual Negative (PHNeg)

*amala gali-gu-gut-m-arl, amala gali-nan-na-n*

We never used to put it down/see him

Imperative (IMP)

*ba-gut-m-a, ba-na*

You (pl) put it down!, You (pl) look at him!

Hortative (HOR)

i-gut-m-arl, i-na-n

Lets put it down/look at him

Future Indicative (FUT)

bali-gut-m-iyn, bali-na-y

We will/are going to/want to put it down/see him

a-ga-gut-m-arl, a-ga-na-n

You (pl) will/are going to/want to put it down/see him

ga-ba-gut-m-arl, ga-ba-na-n

They will/are going to/want to put it down/see him

Present Indicative (PR)

bali-(gu-)gut-m-iyn, bali-nay-na-y

We are putting it down/looking at him, We always put it down/look at him,  
We are trying to put it down/look at him

a-ga-(gu-)gut-m-arl, a-ga-nan-na-n

You (pl) are putting it down/looking at him, You (pl) always put it  
down/look at him, You (pl) are trying to put it down/look at him

ga-ba-(gu-)gut-m-arl, ga-ba-nan-na-n

They are putting it down/looking at him, They always put it down/look at  
him, They are trying to put it down/look at him

Past Perfective Indicative (PP)

i-gut-m-iyn, i-na-y

We put it down/saw him, We were putting it down/looking at him, We have  
put it down/seen him

Past Imperfective Indicative (PI)

i-gut-m-arl-ayn, i-na-n-iyn

We were putting it down/looking at him. We have been putting it  
down/looking at him, We used to put it down/see him

### 3.4 The Pronominal Prefix Complex.

In a number of Gunwiyn.guan languages the prefix complex is highly synthetic and it is not usually possible to easily separate out Subject and Object morphemes. However the Warray prefix complex has a largely agglutinative structure with separable Subject and Object morphemes. There are a few areas where irregularities are found and there are three unanalysable direferential prefixes which function as the equivalents of combinations of Subject and Object

prefixes. There are three sets of Subject prefixes : an unmarked set found in the Past Indicative, Imperative and Hortative (UNM); a set found in the Non-past Indicative (NP); and a set found in the Irrealis (IRR). There are some dialectal differences between DW and EOB, which are set out in the Tables.

Table 4.3 : The Subject Prefixes.

UNM	NP	IRR	
1sgS	at-	bat-	gat-
1dlincS		ma-	manma- gan-ma-
1plS	i-	bali-	gali-
1sgS->2sgO	arriyn-	barriyn-	garriyn- [DW]
ayiyn-	bayiyn-	gayiyn-	[EOB]
1sgS->2plO	arritj-	barritj-	garritj- [DW]
ayitj-	bayitj-	gayitj-	[EOB]
1plS->2ndO	ini-	ban-ini-	gan-ini-
2sgS	an-	an-ga-	gan-
2plS	a-	a-ga-	gan-a-
3sgS	0-	ga-	gan-
3plS	ba-	ga-ba-	gan-ba-

This table includes the three direferential prefixes as these prefixes pattern morphologically with the other 1st person Subject prefixes. Synchronically in a number of cases the Unmarked prefixes function as the base for the NP and IRR prefixes. Historically it appears that they did so in all cases (4.4.1). The reference of the Unmarked prefixes differs between Imperatives and Indicatives. With Indicatives 0- and ba- refer to 3sgS and 3plS respectively, whereas with Imperatives 0- and ba- refer to 2sgS and 2plS respectively.

If we examine the monoreferential Subject prefix paradigm, it would appear from a purely paradigmatic point of view that they could be more economically analysed along minimal/augmented lines. Thus taking the Unmarked forms, we could arrange them in the following paradigm.

Min	Aug	
1	at-	i-
1+2	ma-	i-
2	an-	a-
3	0-	ba-

Instead of the present less economical paradigm.

sg	dl	pl	
1exc	at-	i-	i-
inc	ma-	i-	
2	an-	a-	
3	0-	ba-	

However the 1dlinc is clearly a sub-category of the 1pl in the Subject prefix paradigm. 1dlincS forms could be replaced by 1plS forms for both consultants.

1. nguyn ngek i-na-y gaging nal gaji  
 2sg 1sg 1plS-see-PP yesterday man that  
 You and I saw that man yesterday.

There is no 1dlinc category in the Object prefix paradigm. It is subsumed into a general 1/2pl0 category.

Table 4.4 : The Object Prefixes.

sg	pl	
1	ban-	in-
2	ana-	in-
3	0-	bun- [DW] bin- [EOB]

Table 4.5 sets out the prefix complex forms found for the various combinations of Subject and Object.

Table 4.5 : Subject and Object Prefix Combinations.

2sg0	2pl0	3sg0	3pl0			
1sgSUNM		arriyn-	arritj-	at-	(at-)but-	[DW]
ayiyn-		ayitj-	(at-)bit-		[EOB]	
1sgSNP		barriyn-	barritj-	bat-	bat-but-	[DW]
bayiyn-		bayitj-	bat-bin-		[EOB]	
1sgSIRR		garriyn-	garritj-	gat-	gat-but-	[DW]
gayiyn-		gayitj-	gat-bin-		[EOB]	
1dlincSUNM	ma-	ma-bun-				
1dlincSNP	manma-	manma-bun-				
1dlincSIRR	gan-ma-	gan-ma-bun-				

1plSUNM	ini-	ini-	i-	i-bun-
1plSNP	ban-ini-		ban-ini-	bali- bali-bun-
1plSIRR	gan-ini-		gan-ini-	gali- gali-bun-
1sgO 1plO	3sgO	3plO		
2sgSUNM	ban-	in-	an-	bun-
2sgSNP	ban-ga-		in-ga-	an-ga- bun-ga-
2sgSIRR	gan-ban-		gan-in-	gan- gan-bun-
2plSUNM	ban-a-		in-a- a-	bun-a-
2plSNP	ban-a-ga-		in-a-ga-	a-ga- bun-a-ga-
2plSIRR	gan-ban-a-		gan-in-a-	gan-a- gan-bun-a-
1sgO 2sgO	3sgO			
3sgSUNM	ban-	ana-	0-	
3sgSNP	ban-ga-		ana-ga-	ga-
3sgSIRR	gan-ban-		gan-a-	gan-
3plSUNM	ban-ba-		ana-ba-	ba-
3plSNP	ban-ga-ba-		ana-ga-ba-	ga-ba-
3plSIRR	gan-ban-ba-		gan-a-ba-	gan-ba-
1/2plO	3plO			
3sgSUNM	in-	bun-		
3sgSNP	in-ga-		bun-ga-	
3sgSIRR	gan-in-		gan-bun-	
3plSUNM	in-ba-		bun-ba-	
3plSNP	in-ga-ba-		bun-ga-ba-	
3plSIRR	gan-in-ba-		gan-bun-ba-	

Synchronically in most cases, and it would appear historically in nearly all cases (4.4.1), the prefix complexes are formed according to the following template.

gan- (IRR) +1stS + Obj + 2ndS + ga- (NP) + 3rdS

In addition to the Subject and Object prefixes the prefix complex also includes the prefix mutj- together. This prefix always occurs immediately following the Subject prefix it modifies. As some Subject prefixes precede the Object prefixes while others follow, this means that mutj- does not have a fixed

position in relation to the Object prefixes. There is also a related free form *mutjla* together.

2.     *i-mutj-bun-warli-yn*  
1plS-together-3plO-call out-PP  
We yelled out to them together.

3.     *i-yajiyn mutjla bordaan*  
1plS-went together Darwin  
We went together to Darwin.

While the prefix template satisfactorily accounts for most prefix complex forms synchronically, there are a number of irregularities and exceptions. Prefix complexes involving the 2sg frequently do not conform to the template given.

Attested	Predicted
2sgIRR	gan- *gan-an-
2sgS->1sgO	ban- *ban-an-
2sgS->1/2plO	in- *in-an-
2sgS->3plO	bun- *bun-an-
3S->2sgO IRR	gan-a-(ba-) *gan-ana-(ba-)

It appears that historically the *an* syllable in the 2sg Subject and Object prefixes *an-* and *ana-* has been deleted under haplology, when preceded by a prefix of the form *Vn-* (*ban-* 1sgO, *in-* 1/2plO, *bun-* 3plO, *gan-* IRR). Prefix complexes involving these *Vn-* prefixes and the 2sg are synchronically irregular. It should be noted that the effect of this haplology has been to make 2nd and 3rd sg Subject forms the same when preceded by any of the relevant prefixes. The 2sgS prefix *an-* is always deleted, leaving *0-* which is the marking for the 3sgS category.

The other irregular prefix complexes are those with a 1sgS and a 3plO.

Attested	Predicted
1sgS->3plO UNM	(at-)but- *at-bun- [DW]
(at-)bit-	*at-bin- [EOB]
1sgS->3plO NP	bat-but- *bat-bun- [DW]
bat-bin-	bat-bin [EOB]
1sgS->3plO IRR	gat-but- *gat-bun- [DW]
gat-bin-	gat-bin- [EOB]



Historically it would appear that the final n segment of the 3plO prefix bun- has undergone a progressive assimilation in manner of articulation to the final t segment of the 1sgS prefixes. This progressive assimilation has been carried through more consistently in DW's dialect than in EOB's. For both speakers the 1sgS prefix at- is usually omitted in 1sgS->3plO UNM combinations.

4. but/bit-na-y (at-but/bit-na-y)  
1sgS->3plO-see-PP 1sgS-3plO-see-PP  
I saw them I saw them.

While the form in brackets is possible the other form is far more common. The deletion of at- does not appear to be random; at- tends to be present when the 1sgS is first introduced to the text, but tends to be deleted thereafter.

5. lidawi i-leya?-m-iyn i-leya?-m-iyn lilimun  
place name 1plS-pass-Aux-PP 1plS-pass-Aux-PP place name  
but-ga-ngi but-jalak-m-iyn le marriwak-u  
1sgS->3plO-take-PP 1sgS->3plO-show-Aux-PP place old days-OBL  
at-warrki-m-arl-ayn  
1sgS-work-Aux-UNM-PI

We passed lidawi, and we passed lilimun. (Then we got to Marrakai) and I took them and showed them the place where I used to work in the old days.

In 5 the 1sgS is introduced in the subsumed form of a 1plS, but is still deleted in the following clauses within the same text. The marking of plurality within the 3rd person is restricted by animacy and syntactic function. Human beings invariably receive plural cross-referencing. Ghosts and higher/middle animates nearly always take plural Subject cross-referencing. However plural Object cross-referencing is uncommon with these entities, other than domestic dogs. Other entities take singular cross-referencing.

6. waynlak angilak bat-but-nay-na-y a-gubam-u  
right now 1sgSNP-3plO-PR-see-A Cl-lots-OBL  
bondel-bondel  
magpie  
Right now I can see lots of magpies.

7. an-lung.ga-lik ba-ni-niyn but-na-y amala  
P-billabong-LOC 3plS-sit-PI 1sgS->3plO-see-PP Neg  
gat-le-n  
IRR1sgS-shoot-P

They were sitting (on the other side) of the billabong. I saw them (the wallabies) but I did not shoot them.

8. belam girranglul at-na-y jap-lik  
snake two 1sgS-see-PP road-LOC  
ana-ba-dirri?-yajiny-u-n  
there-3plS-crawl-went-DAT-PRM  
I saw two snakes crawl across the road there.

As 8 demonstrates singular cross-referencing may be found even if there is a numeral specifically indicating that the cross-referenced entity is plural (at-na-y, not \*at-but-na-y). In Warray the 3pl category also expresses the specific indefinite categories someone/no-one (3.9.1 & 3.10.1).

9. girri ngek-u-wu ba-mok-mi  
money 1sg-OBL-DAT indefS-steal-Aux PP  
Somebody stole my money.

10. bat-but-na-y  
1sgSNP-indefO-see-A  
I can see somebody (coming).

11. amala letbal gan-ba-jim-in  
Neg close IRR-indefS-approach-P  
Nobody could approach (her).

#### 3.4.1 Historical Analysis of the Subject Prefixes.

The diachronic analysis of the Subject prefixes is an area of some interest. An examination of the forms given in Table 4.3 would suggest that the UNM prefixes are the basic forms with the NP and IRR prefixes being derived from these. However this can only be maintained synchronically for the 2nd and 3rd person Subject prefixes (allowing for the irregularities involving the 2sg discussed in the previous section). Forms with a 1stS are mostly unanalysable synchronically.

The best point of departure for the reconstruction of the 1stS forms appears to be the IRR forms. In forms with a 2nd or 3rd S the morpheme gan- can be segmented, as it can be for 1dl inc S and 1plS->20 forms. The other 1stS IRR prefixes commence with ga and it seems most reasonable to view gan- as being the source for this. The development of the 1sgS forms is relatively unproblematic.

UNM	Source	IRR form	IRR
-----	--------	----------	-----

1sgS	at-	*gan-at-	gat-
1sgS->2sgO	arriyn-	*gan-arriyn-	garriyn-
1sgS->2plO	arritj-	*gan-arritj-	garritj-

The synchronic IRR forms may be derived from the proposed source forms by a reduction of \*an-a -> a. The same reduction is posited in the following discussion of the NP forms of these 1sgS prefix complexes. The situation with the 1plS form is slightly more complicated.

UNM	Source	IRR form	IRR
1plS	i-	*gan-i-	gali-

A change of \*n -> l is required. The same change is also posited for the NP form of the 1plS prefix. The suffix only, enough -nalak [EOB] ~ \_nanak [DW] which shows dialectal variation between l and n, provides some supporting evidence for the plausibility of this change.

The best point of departure for the reconstruction of the NP prefix forms is the 1plS -> 2ndO form ban-ini-. The UNM form of this prefix is ini-, which appears to consist historically of in- 1/2plO and i- 1plS. (However it is not possible to synchronically analyse ini- in this way as it also indicates 2sgOs). The NP form of this prefix is marked by a morpheme ban-. The NP forms of the other 1stS prefixes start with ba apart from the 1dlinc. The development of the 1sgS and 1plS forms follows the same course as for the IRR. The NP 1dlincS form requires a regressive assimilation of \*b -> m.

UNM	Source	NP form	NP
1sgS	at-	*ban-at-	bat-
1sgS->2sgO	arriyn-	*ban-arriyn-	barriyn-
1sgS->2plO	arritj-	*ban-arritj-	barritj-
1plS	i-	*ban-i-	bali-
1dlincS	ma-	*ban-ma-	manma-

It is rather a problem to explain why this \*ban- morpheme is found marking the NP category only with 1stS forms. It does not seem likely that it is related to the homophonous ban- 1sgO morpheme presently attested in Warray. There is however a correlation between the occurrence pattern of \*ban- and the distribution patterns of the verbal suffixes in the NP. There are two suffixes found in the NP in Warray. 1stS desiderative, and 2nd and 3rdS NP forms all take the Unmarked suffix. Non-desiderative 1stS NP forms take the same suffix as all persons do in the PP, the Set A suffixes (4.5 & Table 4.2).

These suffixes have cognates in the other Gunwiyn.guan languages. The Warray Set A suffix is found marking past realis perfective (approximately, the

exact details vary from language to language). The Warray Unmarked suffix is found marking the non-past for all persons (Again the nature of the category marked varies from language to language). Therefore it would seem most reasonable to reconstruct these suffixes as having originally had a past/non-past function in Proto-Gunwiynguan, unaffected by the person of the Subject (Alpher, Evans & Harvey).

The question then arises as to why 1stS NP forms synchronically in Warray take a historically past verbal suffix. No direct answer can be given to this question, but we can note that the morpheme \*ban- as posited, is found only with 1stSNP forms. Therefore it would seem likely that at some stage Warray had the following three constructions.

1. \*ban- + 1stS + verb + non-past
2. \*ban- + 1stS + verb + past
3. \*1stS + verb + non-past

Construction 1 now survives only in the desiderative (4.8.5), and construction 2 has replaced construction 3 elsewhere. However as there is no evidence as to the original function of \*ban- the reasons for this replacement remain unknown.

### 3.5 Verbal Suffixes

It is necessary to distinguish five different sets of suffixes. These sets are distributed as follows.

1. One set of suffixes is found in the Hortative, 2nd and 3rdS NP forms and the PIRR. It is also found in desiderative 1stS NP forms (4.8.5). It functions as the stem for the nominalised verb (5.) in all cases, and for the PI in most cases. This set is distributionally unmarked, and is therefore so named.

2. A second set of suffixes is found in the PP and with non-desiderative 1stS NP forms. There does not appear to be any obvious name for this set, and so it is called Set A.

3. A third set of suffixes is found in the NPIRR.

4. A fourth set of suffixes is found in the IMP.

5. A fifth set of suffixes is found in the PI. In most cases the stem for the PI inflections consists of the verb stem with the unmarked suffix.

However in some cases stems idiosyncratic to the PI occur, or the form may be unanalysable.

### 3.6 Conjugations.

In Warray there is no sharp distinction between regular and irregular verbs. There is a range in conjugations from the -m-arl/-arl/-b-arl conjugation, which with 135 members has approximately half the verbs in Warray as its members, then to the -bu-m/-m conjugation with 38 members and then through various small conjugations of mostly less than 10 members to semi-regular verbs and eventually to irregular verbs.

The \_m-arl conjugation is the dominant conjugation in Warray. It has 121 members (vastly more than any other conjugation). For EOB deverbal nouns may be productively formed from verb roots belonging to this conjugation, and to this conjugation only (4.). The only well established English verb root loan in Warray, warrki work has been assigned to this conjugation warrki-m-arl to work. EOB also occasionally coined/used a verb drangk\_m-arl to be drunk, which was also assigned to the -m-arl conjugation. The only other English loan root verb encountered was deyp\_bu-m to make a tape, which uses the auxiliary -bu-m in its specific denominalising to make noun X function (4.). It would therefore appear reasonable to regard the -m-arl conjugation as the unmarked conjugation for loan verbs.

Verbs in Warray may be grouped into two super-conjugations according to whether they take -rl/-arl as the Unmarked suffix or not. There are two differences between -rl/-arl verbs and other verbs. One of these is in the allomorphy of the PI. -rl/-arl verbs take -ayn in the PI whereas all other verbs take -iyn. The other and more important difference is that it is only -arl verbs which distinguish the NPIRR suffixes from the IMP suffixes. These two sets are identical for other verbs (including the three -rl verbs), whether the actual form is marked by -0, a substantive suffix, is irregular or even suppletive.

Apart from these differences in suffix allomorphy and distinctions, we also cite verbs from the -rl/-arl super-conjugation by a different form to the form used for other verbs. Verbs from the -rl/-arl super-conjugation are cited by that suffix form, which belongs to the Unmarked suffix class. Verbs belonging to the other super-conjugation are cited by the Set A suffix forms. It is necessary to so cite verbs from the other super-conjugation because of the following factors.

1. Four conjugations, those which have Set A suffix forms -m, -y, -ngi and -yn, all share an Unmarked suffix form -n.

2. Two conjugations, those which have Set A suffix forms -yi and -0, share an Unmarked suffix form -yn.

Also with those verbs from the above six conjugations which have cognates in other Australian languages, it is the Set A form which preserves the characteristic conjugation marker. This is true of all verbs other than \_rl/-arl verbs, and is the other reason why these verbs are cited by their Set A form.

For the -rl/-arl verbs on the other hand, it is the Unmarked form which corresponds to the conjugation marker found in cognates and this is one of the reasons why the Unmarked is used with these verbs. The other reason is that citing -rl/-arl verbs by their Set A form would cause confusion with verbs from the -yn conjugation (the Set A suffix for -rl/\_arl verbs is -yn/-iyn). In the case of the verb to toss there would be a complete confusion.

to toss	to break
Set A lagi-yn	wiji-yn
Unmarked	lagi-rl      wiji-n
PI	lagi-rl-ayn wiji-n-iyn

If to toss and to break were both cited by their Set A forms, the fact that they belong to different conjugations would be lost. The following highly irregular verbs are cited by the suffix forms given because these forms correspond most closely to the cognate forms found in other languages.

to sit	ni (Unmarked)
to go	yang (Imperative)
to bite	be [DW] ~ berr [EOB] (Unmarked)

The following table sets out the conjugational system. For non -arl verbs only the IMP is cited as the NPIRR is always the same. Compound verbs have the same inflectional pattern as their auxiliaries unless an exception is specifically stated.

Table 4.5 : Conjugations.

Set A UNM	PI	NPIRR	IMP		
nyil-arl	nyil-iyn	nyil-arl	nyil-arl-ayn	nyil-i	nyil-a
to bring					

(All -arl/-m-arl/-b-arl verbs. wung-arl to leave has an irregular Set A form wung-ayn.)

Set A UNM	PI	IMP	
lagi-rl	lagi-yn	lagi-rl	lagi-rl-ayn lagi
to toss			

bi-rl bi-ng bi-rl birlbirlang bi  
to drink  
ja-rl ja-yn ja-rl jujiriyn ja  
to eat

bu-m bu-m bu-n bu-n-iyn bu  
to hit

(Also balawa-m to rub, to paint, bula-m to make, ju-m to die, nawa-m to  
take something off somebody, nga-m to hear )

la-m la-m le-n le-n-iyn li  
to spear

(bok-la-m to rub string has an irregular PI form bok-lil-iyn)

na-y na-y na-n na-n-iyn na  
to see

(Also no-y to burn, wo-y to give. Both of these verbs have a u vowel in  
forms other than Set A)

warli-yn warli-yn warli-n warli-n-iyn warli  
to yell out

(Also jatbak-gayi-yn to walk with a walking stick, -ji-yn inchoative/  
reciprocal, mugayi-yn to show off, warri-yn to feel bad, wayi-yn to return,  
wiji-yn to break(intr), -yi-yn reflexive )

ga-ngi ga-ngi ga-n ga-n-iyn ga-ng  
to take

ba-j-ang ba-j-ang ba-j-i ba-j-i-jiyn ba-j-ayn  
to look for

(All -j-ang verbs, and j-ang to stand for EOB)

yu-ng yu-ng yu yu-yiyn yu-yn  
to lie

ni ni-wiyn ni ni-niyn ni-yn  
to sit

gorri gorri gorri-yn gorri-ny-iyn gorri  
to break

(Also dokorri to feel cold, windi to hang out (tr), wuli to rain )

ngunji-yi    ngunji-yi    ngunji-yn    ngunji-ny-iy    ngunji  
to talk

ji-yi ji-yi ji-yn junguj-iy    ji  
to say/do

ju-yi ju-yi ju-yn jun-iy    ju  
to defecate

wu-yi wu-yi wu-yn wun-iy    wu-y  
to climb

mi    mi    mayn    mayim may  
to get

be    biyn    be [DW] ~    bin-iy    bi  
to bite    berr [EOB]

yang    yajiy    iy    yungoy-iy    yang  
to go

jim    jim    jim-in    jim-in-iy    yayn  
to come

nyim    nyim    nyim-in    nyim-in-iy    nyim-i  
to enter

li-yn li-yn li-ngan    li-ngan-iy li-ynjayn  
to fall

bi-yn bi-yn bi-yn bi-ny-iy    bi  
to dig for yams [DW only]

giyak-li    giyak-li    giyak-li    giyak-li-liyn    giyak-li  
to sweat  
(Also malak-li to dance )

giyak-bu-k    giyak-bu-k    giyak-bu    giyak-bu-niy    giyak-bu  
to sweat

### 3.7 Reduplication.



Verbal reduplication is a complicated phenomenon both formally and functionally in Warray. There are essentially two types of verbal reduplication. One type involves the marking of certain habitual/progressive categories. The other type involves an iconic use of reduplication to mark repetition/duration.

#### A. Formal Structure of Verbal Reduplication.

The two types of reduplication are not formally distinguished when the verb is monosyllabic, both being realised by a complete reduplication of the verb. However if the verb is polysyllabic the two types reduplication are formally distinct. Habitual/progressive reduplication is invariably marked by reduplication of the initial CV of the verb.

1. bat-nga-ngarndi-yilyil-m-iyn  
1sgSNP-PR-throat-tickle-Aux-A  
I have a tickle in my throat.

The realisation of iconic reduplication is variable, being affected by the lexical and morphological analysability of the verb. Simple verbs show reduplication of the first two syllables.

2. an-ga-lingan-li-ngan  
2sgS-NP-R-fall-NP  
You are falling about.

3. at-gorri-gorri-ny-iyn wek  
1sgS-R-break-UNM-PI firewood  
I broke up the firewood.

4. nayi-na-yi gan-li-ynjayn  
R-watch-refl IRR-fall-NP  
Watch out for yourself! You might fall!

As 4 demonstrates this pattern holds for reflexivised simple verbs. The most common reduplication pattern for compound verbs consisting of a monosyllabic root + an auxiliary is reduplication of the root.

5. ga-lirr?-lirr-mi-yi-n ngirri  
NP-R-scratch-Aux-refl-NP dog  
The dog is scratching himself.

In addition to the type of reduplication exemplified in 5 compound verbs with mono-syllabic roots also show a pattern involving reduplication of the first syllable and the initial CV of the second.

6. ga-mukwa-muk-wayi-n

NP-R-muck up-Aux-NP

He is really mucking up.

7. ga-birl-bi-rl ga-nyolkma-nyolk-m-arl amala an-wak-u

NP-R-drink-NP NP-R-gulp-Aux-NP Neg Cl-little-OBL

gan-bi

IRR-drink

He is really gulping (his tea) down. He cannot drink it quietly.

This type of reduplication is the pattern found with nominals (3. & 3.). The exact difference in meaning between the pattern in 6 and 7, and that found in 5 is not entirely clear. However it does appear from the available examples that it is an emphatic sub-type of iconic reduplication. Compound verbs consisting of a polysyllabic root and an auxiliary generally show reduplication of the first two syllables of the stem.

8. ga-dadawk-dadawk-m-arl

NP-R-gnaw-Aux-NP

He is gnawing it.

9. diki-gujili?-m-a guji-gujili?-m-a really-fill-Aux-IMP R-fill-Aux-

IMP

an-ga-gujili?-m-arl-wirru

2sgS-NP-fill-Aux-NP-properly

Really fill it up! Keep on filling it up. You fill it up properly.

However compound verbs with closed disyllabic roots (2.) sometimes show the first syllable + initial CV of second pattern exemplified in 6 and 7.

10. an-ga-jili-jilil?-nik-b-arl

2sgS-NP-R-jingle-Aux-Aux-NP

You are jingling it.

There is no clear distinction in meaning between the two patterns for compound verbs with polysyllabic roots. The exact realisation of iconic reduplication in polysyllabic verbs varies somewhat as the preceding examples show. The pattern for reduplication appears to be as follows.

#### Base Reduplication

monosyllable        complete  
open disyllable    complete  
closed disyllable complete or initial CV(C)CV  
trisyllable or longer    initial CV(C)CV

Some verb roots such as *bujapbujap* to poke around and *martmart* to shine are inherently reduplicated. Such verb roots cannot undergo further productive iconic reduplication (i.e. lexical reduplication blocks iconic reduplication and therefore the two are formally the same phenomenon).

If a compound verb involves an incorporated adverb or noun then the form of iconic reduplication depends on the degree of lexicalisation of the incorporation compound. With fully lexicalised incorporations, or incorporations where the incorporated form or the verb root do not occur other than in incorporation compounds the first two syllables of the verb are reduplicated.

11.    *yumbal ba-duwak-duwak-gut-m-iyn bupal-lik*  
log 3plS-R-across-put-Aux-PP creek-LOC  
They put the logs across the creek. [duwak occurs only in compounds]

12.    *at-bamduyn?-bam-duyn-m-iyn*  
1sgS-R-head-nod-Aux-PP  
I nodded my head. [duyn? occurs only in this compound]

13.    *bun-ga-ngarndi?-ngarndi-wul-m-arl*  
3plO-NP-R-chase-Aux-NP  
He is chasing them. [ngarndi-wul-m-arl lit. throat-follow]

If however a verb root which occurs only in an incorporation compound is inherently reduplicated, then productive iconic reduplication is not possible.

14.    *ngirri ga-layn-widi?widi-m-arl*  
dog NP-tail-wag-Aux-NP  
The dog is wagging its tail.

If the partners in the incorporation compound freely occur independently then it appears that the incorporated form does not fall within the domain of iconic reduplication, and reduplication proceeds according to the pattern of 2 - 10 preceding.

15.    *bat-dum-mirrng?-mirrng-m-iyn mirral-yang*

1sgSNP-eye-R-become hot-Aux-A sun-ABL

The sun is burning my eyes. [lit. I am becoming eye-hot from the sun]

The evidence presented in 11 - 15 shows that productively incorporated forms do not fall within the scope of iconic reduplication. The actual base for reduplication varies with the internal morphological structure of the lexeme, but iconic reduplication shows a general preference for di-syllabic reduplication. It shows a tendency towards lexicalisation. Not only are certain roots show inherent iconic reduplication, but the frequency of iconic reduplication with roots is to some degree lexically controlled. Thus for example the root *dayn?* to cut showed a much greater frequency of iconic reduplication than the root *yurr* to drag, to pull. It would not appear that dragging/pulling is an activity which is any less capable of being viewed duratively/iteratively than cutting. As such the control over the differences in frequency between the two roots would appear to be lexical in nature.

Habitual/progressive reduplication shows no such lexicalisation tendencies. As 1 shows it is formally distinct in polysyllabic verbs from iconic reduplication, and this formal distinction is most clearly shown by the co-occurrence of the two types of reduplication in the following examples.

16. *munjiwa ga-lo-lorrot-lorrot-m-arl*

knife NP-PR-R-sharpen-Aux-UNM

He is sharpening and sharpening the knife.

17. *bat-du-dumila-jup-jup-m-iyn*

1sgS-PR-R-drop-Aux-A

I am crying tears.

#### B. Functions of Iconic Reduplication.

The basic function of this type is to indicate duration or iteration of a situation

18. *ga-gurditj-gurditj-m-arl*

NP-R-go around-Aux-NP

He is going around and around.

19. *an-jen ga-jen-walng?-walng-m-arl*

P-tongue NP-tongue-R-hang out-Aux-NP

(The dogs) tongue is hanging out.

This marking of duration/iteration may have a number of secondary interpretations.

a) Intensive

20. ngirri ga-ba-wa?-wa-m-arl dumgiga amala gat-yu-yn

dog NP-3plS-R-bark-Aux-NP sleep Neg IRR1sgS-lie-NP

bat-gut-j-ang bat-but-bum-bu-m waynlak

1sgSNP-get up-Aux-A 1sgSNP-1sgS->3plO-R-hit-A soon

The dogs are barking. I cannot sleep. I am going to get up and really belt them soon.

21. muya ba-jujir-iyn ba-wul-iyn muya amala

tucker 3plS-eat-PI 3plS-finish-PP tucker Neg

ba-wuli-wul-iyn ngek-u

3plS-R-finish-PP 1sg-DAT

They have eaten all the tucker. They have finished it. There is no tucker. They have really finished it all up on me.

b) Large Amount of an Entity

22. muya ba-dayn?-dayn-mayim an-wik

tucker indefS-R-cut-Aux PI P-skin

The fruit is all peeled.

[lit. Someone has cut and cut the skin (from the fruit).]

23. an-wik ga-ngal?-ngal-jim-in

P-skin NP-R-off-come-NP

He has a rash. [lit. Lots of skin is coming off.]

These meanings are secondary interpretations as they appear to depend on context. The translations given are those that were appropriate in the particular situation. In other contexts it appears that these clauses could have different interpretations. It appears that 22 could, for example, mean that the fruit was peeled very quickly (intensive action), rather than that there was a large amount of it. Iconic reduplication marks a subcategory of imperfectivity. It is therefore to be expected that it can co-occur with the PI as in 22. Iconic reduplication and the PI show essentially the same range of secondary interpretations derived from their common repetition/duration marking function (4.8.2). As with the PI it appears that the secondary interpretations proceed on an ergative basis.

### C. Habitual/Progressive Reduplication.

This category of reduplication marks past negative habituals, present positive habituals, present progressives and gnomics.

#### a) Past Negative Habituals.

This category is marked by initial CV reduplication with polysyllabic verbs.

24. amala gan-ja-jabul-m-arl

Neg 3sgS-H-smoke-Aux-P

He never used to smoke.

It is marked by complete reduplication with monosyllabic verbs.

25. amala gan-birl-bi-rl

Neg 3sgS-H-drink-P

He never used to drink.

#### b) Present Progressives.

As for all reduplication marked categories this category is marked by complete reduplication with monosyllabic verbs.

26. an-ga-ngan-nga-n

2sgS-NP-PR-hear-NP

Are you listening?

The situation was considerably more varied with polysyllabic verbs. Formally it is marked with CV reduplication. However unlike monosyllabic verbs, this category is not obligatorily marked with polysyllabic verbs. Both my consultants showed the greatest frequency of overt marking with a 1sgS, especially DW. This tendency is exemplified by the following two examples which are responses to a sequence of elicitation bases identical in all respects but the Subject.

27. an-gibe bat-di-dirrip-bu-yi-yn

P-back 1sgSNP-PR-scratch-Aux-refl-A

I am scratching my back.

28. ga-dirrip-bu-yi-n an-gibe

NP-scratch-Aux-refl-NP P-back

He is scratching his back.

CV reduplication is not required with 1sg Subjects.

29. wanba bat-jul?-j-ang bat-yajiyin bupal-lik  
just 1sgSNP-go down-Aux-A 1sgSNP-go A creek-LOC  
I am just going down to the creek.

Neither is it restricted to 1sg Subjects.

30. wili ga-ba-ni-nik-b-arl  
house NP-3plS-PR-put up-Aux-NP  
They are building a house.

31. yul-lik manma-/bali-ni-ni-wiyn  
ground-LOC 1dlincSNP-/1plSNP-PR-sit-A  
We are sitting on the ground.

c) Present Positive Habituals/Gnomics.

As with the preceding two categories monosyllabic verbs invariably use complete reduplication to mark these two categories.

32. an-maymak-u ga-birl-bi-rl-u-n guluwedelkmi  
Cl-sweet-OBL NP-PR-drink-NP-DAT-PRM hiccup  
ga-mayn-mayn  
NP-PR-get NP  
Every time he drinks soft drinks, he gets the hiccups.

Polysyllabic verbs with a 1sgS frequently used CV reduplication to mark these categories. Such verbs with a non 1sgS invariably appeared without reduplication.

33. ngonj bat-mu-mutj-mi-yi-yn  
word 1sgSNP-PR-mix-Aux-refl-A  
I am always mixing up my words.

34. ngek mutjla bat-ge-gemebijip-m-iyn ga-yirr?-jim-in  
1sg too 1sgSNP-PR-roll up-Aux-A NP-come undone-Aux-NP  
Me too, every time I roll up (my swag), it comes undone.

35. ga-nawa-n an-wak gaji ga-nyi-bu-n  
NP-take off-NP Cl-little that NP-cry-Aux-NP  
Every time she takes that (toy) off the kid it cries.

d) Summary.

From the preceding discussion it may be observed that CV reduplication serves to distinguish the Past Habitual from the Past Non-Habitual in the Negative. It also serves to distinguish Present from Future within the NP for monosyllabic verbs. It irregularly makes this distinction for polysyllabic verbs, especially if they have a lsgS. Iconic reduplication does not serve as a marker of category distinctions within the verbal system.

### 3.8 Aspect, Mood and Tense Categories.

#### 3.8.1 Past/Non-Past.

The Past vs Non-Past distinction in Warray is a somewhat complicated one both morphologically and semantically. Morphologically the distinction involves both the suffix and prefix systems. In the Irrealis the distinction is made by means of the suffix system. The NPIRR takes the its own particular suffix set, whereas the PIRR take the Unmarked Suffixes (4.5). In the Indicative the distinction is made by means of the prefix system. The NP takes the NP prefixes, whereas the PP and PI take the Unmarked prefixes (4.5).

Semantically the distinction is not in fact a simple past vs non-past distinction. The aspectual categories of perfective and perfect affect the appearance of Past vs Non-past morphology. All events which are past or perfect take morphologically Past forms, while future and present non-perfect imperfective events take morphologically Non-Past forms. The coding of present perfective events is not consistent, with such events showing variable coding into the Past and Non-past categories. Some of this variability reflects dialectal differences between the two main consultants. DW codes a greater range of present perfectives with Past morphology than EOB does.

The definitions of perfective/imperfective and perfect used are those of Comrie 1976 : "The term perfective .... denotes a situation viewed in its entirety, without regard to internal temporal consistency" (ibid : 12). The imperfective involves "explicit reference to the internal temporal structure of a situation, viewing a situation from within" (ibid : 24). The perfect "refers to a past situation which has present relevance" (ibid : 12).

a.) Indicative.



Past and perfect indicatives take past morphological coding.

1. at-nyip-m-iyn

1sgS-swim-Aux-PP

I swam. [past perfective]

2. at-nyip-m-arl-ayn

1sgS-swim-Aux-UNM-PI

I was swimming. [past imperfective]

3. bat-nyip-m-iyn

1sgSNP-swim-Aux-A

I am swimming, I will swim. [present imperfective, future]

4. at-gulu-j-i-jiyn ngikba-yang at-nyarl-m-iyn

1sgS-stand-Aux-UNM-PI night-ABL 1sgS-tired-Aux-PP

I have been standing up all morning/since morning. I am tired.

[perfect imperfective]

5. bat-gulu-j-ang

1sgSNP-stand-Aux-A

I am standing up, I will stand up. [present imperfective, future]

6. mirral jul?-j-ang

sun go down-Aux-PP

The sun has gone down. [perfect]

7. mirral ga-gubal-jul?-j-i

sun NP-nearly-go down-Aux-NP

The sun has nearly gone down. [present imperfective]\_

8. mirral ga-jul?-j-i

sun NP-go down-Aux-NP

The sun is going down. [present imperfective]

9. an-dum a-muku ga-nan-na-n

P-eye Cl-good NP-PR-see-NP

He can see well. [present habitual]

The situation with present perfective indicatives is somewhat more complicated. Present statives, which are inherently perfective take Past morphology.

10. at-mitj-na-y  
1sgS-know-Aux-PP  
I know him.

However my two consultants coded other present perfectives differently. DW coded them with Past morphology, whereas EOB coded them with Non-past morphology.

11. at-bil-mi wang ga-ba-ngum-bu-m  
1sgS-smell-Aux A meat NP-3plS-cook-Aux-NP  
I can smell the meat they are cooking. [DW]

12. wang an-buye-rru bat-bi-bil-mi  
meat Cl-smelly-OBL 1sgSNP-PR-smell-Aux A  
I can smell the smelly meat. [EOB]

Both consultants normally coded present tense inchoatives with Past morphology, as present tense inchoatives are normally both perfect and perfective (to have become X = to be X)..

13. at-wuyang-ji-yn  
1sgS-hungry-inch-PP  
I was hungry, I am hungry

14. bat-wuyang-ji-yn  
1sgSNP-hungry-inch-A  
I will be hungry.

15. an-wak a-lil ga-wuyang-ji-n muya-wu  
Cl-little M-boy NP-hungry-inch-NP tucker-DAT  
The little boy is always hungry for food.

16. wang jolong-ji-yn  
meat ripe-inch-PP  
The meat is cooked.

17. wang ga-gubal-jolong-ji-n  
meat NP-nearly-ripe-inch-NP  
The meat is nearly cooked.

However non-perfect imperfective present inchoatives such as 15 and 17 take the NP prefixes.

b.) Negatives.

Active verbs take Past morphology when describing past or perfect events. They take Non-past morphology when describing other events.

18. amala garriyn-nga-n

Neg IRR1sgS->2sgO-hear-P

I could not hear you.

19. amala gat-na-n marriwak-u-yang yajiyn ajang.gi

Neg IRR1sgS-see-P long time-OBL-ABL went must be

gubam-ji-yn

big-inch-PP

I have not seen him for a long time since he went. He must be grown up.

20. amala garriyn-nga

Neg IRR1sgS->2sgO-hear

I can't hear you.

21. amala gan-lili-m-i ga-wirriyn?-m-arl-boy

Neg IRR-run-Aux-NP NP-walk around-Aux-NP-PERL

He is not running, He is walking around.

The situation is somewhat more complicated with stative and inchoative verbs. DW consistently used Past forms with present negative statives and inchoatives. With present negative statives, EOB variably used Past and Non-past forms.

22. gaji girranglul amala gan-ba-gelngaygmiyi-n-lul

that two Neg IRR-3plS-married-P-pair

Those two are not married.

23. an-wak-wak-u ga-wirriyn?-m-arl an-bart a-warru

Cl-little-little-OBL NP-walk around-Aux-NP P-knee Cl-bad

galgal ga-yiyn-yiyn amala gan-gamu-ji-n

slow NP-PR-go NP Neg IRR-tough-inch-P

The kid is walking around. His knees are no good. He walks slowly.

They (his knees) have not toughened up.

24. amala gat-ngarndi-dep-m-arl

Neg IRR1sgS-throat-thirsty-Aux-P

I am not thirsty. [DW & EOB]

25. amala gat-ngarndi-dep-m-i

Neg IRR1sgS-throat-thirsty-Aux-NP

I am not thirsty. [EOB]

Clearly the nature of the distinction between the two morphological categories is complicated. The two major sets of factors relevant to the distinctions are tense - past/present/future; and aspectual - perfect/ non-perfect and perfective/imperfective. Of the two sets of factors tense is the primary distinction as it is only in the present that aspectual distinctions are relevant. While there are a number of factors relevant to the analysis of the distinction, the significant fact is that the language makes a binary morphological distinction between events which are either past or perfect vs events which are either future or present non-perfect imperfective. Present perfective events are somewhat variably coded into either of these categories.

As this binary distinction is primarily categorisable in terms of tense it would seem most reasonable to give the two categories tense based glosses. The category concerned with past, perfect (the perfect having a component of past meaning) and some present perfectives would appear to be best described as Past, with the other category being Non-Past (all events in this category are non-past).

### 3.8.2 Past Perfective and Past Imperfective.

These two categories describe past realis situations. Both categories take the Unmarked Prefixes. The PP takes the Set A suffixes. For all regular and nearly all irregular verbs the stem for the PI is the root + (Aux) + the Unmarked suffixes (4.). Conjugationally determined inflections, -(C)iyn or \_ayn are then suffixed to this PI stem (4.). PIs not formed on this pattern consist of a stem which is idiosyncratic to the PI and -iyn. Two verbs, mi to get and bi\_rl to drink have completely irregular PI forms mayim and birlbirlang respectively.

The distinction between the two categories corresponds to the distinction between perfective and imperfective discussed in the preceding section. The PI is used to encode past habitual situations.

1. ma-yungoy-iyn wang-u ma-buk-ga-ngi

1d1incS-go-PI meat-DAT 1d1incS-hunt-Aux-PP

We used to go hunting for game.

The PI may be used to present a situation as a process rather than an event.

2.     lili-m-arl-ayn yarrba-yang ga-wok-ngir?-m-arl  
run-Aux-UNM-PI long way-ABL NP-heavy-breathe-Aux-NP  
a-murdek  
Cl-big  
He has run/been running a long way. He is puffing and panting.

This is a classic use of imperfectives cross-linguistically. Another classic use is in describing a situation leading up to an end point with the PI and describing the completion with the PP.

3.     warlpe bula-n-iyn wul-iyn  
loincloth make-UNM-PI finish-PP  
She has finished that loincloth that she was making.

4.     wek nu-n-iyn yumbal no-y li-y  
fire burn-UNM-PI tree burn-PP fall-PP  
The fire was burning the tree. It burnt through and the tree fell down.

Yet another classic use of imperfectives, if not the classic use of imperfectives is where the setting situation is in the PI and the new situation in the PP.

5.     at-yajiyn at-nyip-m-arl-ayn bupal-lik at-na-y  
1sgS-went 1sgS-swim-Aux-UNM-PI creek-LOC 1sgS-see-PP  
abulangu at-ngal?-ni-wiyn wik-yang  
crocodile 1sgS-come out-Aux-PP water-ABL  
I went down to the creek. I was swimming when I saw a crocodile and jumped out of the water.

With punctual verbs, the PI indicates repetition.

6.     an-wak-wak-u i-yu-ng-lul mawiyn?-yungoy-iyn  
Cl-little-little-OBL 1plS-lie-PP-pair turn over-Aux-PI  
ban-nawa-n-iyn yurr-mayim ngek-u ngek  
1sgO-take off-UNM-PI pull off-Aux PI 1sg-DAT 1sg  
waykan at-yu-ng  
exposed 1sgS-lie-PP  
The little one (and I), we slept together. She kept on turning over and taking the blanket off me. Me, I slept uncovered.

7. i-gulu-j-i-jiyn i-yajiyn jap-lik gawoy  
 1plS-stand-Aux-UNM-PI 1plS-went road-LOC again  
 i-gulu-j-ang walak-ji-yn wik amala  
 1plS-stand-Aux-PP hot-inch-PP water Neg  
 We had to keep on stopping. We would go along the road again and stop.  
 (The car) would get hot. There was no water (in the radiator).

In the same way that Iconic reduplication has a number of possible secondary interpretations (4.7), so the PI has the same possible secondary interpretations, presumably arising from its function of indicating duration/repetition of a situation.

8. a-ngiku nyi-bu-n-iyn gaging ngikba  
 M-dingo cry-Aux-UNM-PI yesterday night  
 The dingoes were howling last night.

9. yumbal an-dilmi-wu i-gorri-yn-iyn an-wak-wak-u  
 stick Cl-dry-OBL 1plS-break-UNM-PI Cl-little-little-OBL  
 We broke up lots of little dry sticks.

10. yumbal li-ngan-iyn a-gubam jap-lik ga-duwak-yu  
 tree fall-UNM-PI Cl-lots road-LOC NP-across-lie  
 Lots of trees have fallen down. They are lying across the road.

11. an-bik bok-lil-iyn a-gubam gaging  
 P-string make string-Aux-PI Cl-lots yesterday  
 She made lots of string yesterday.

In these examples it may be observed that the duration/repetition of the activity, with singular verbal prefixing, is also interpreted to mean that there was a large amount of a particular entity involved. This secondary interpretation proceeds on an ergative basis (i.e. the PI verb form will be interpreted as relating to the Object, if there is one. If there is not it will be interpreted as applying to the Subject). While it has been observed with animates such as dingoes in 8, it is usually found with inanimates.

Determining markedness relationships between the two categories is somewhat problematic. In elicited material the PP was much more frequent than the PI. However as elicitation favours perfective forms this is not conclusive. Nevertheless it did appear that PP forms were also much more frequent in the unprompted speech and conversations that I heard. This suggests that the PP is the unmarked form. There are also some differences in the use of the categories

between my two main consultants. DW occasionally used PP forms with imperfective meaning

11. jap-lik at-yajiyn at-na-y nganbal a-gubam-u ba-ni-niyn  
road-LOC 1sgS-went 1sgS-see-PP goose Cl-lots-OBL 3plS-sit-PI  
I was walking along the road when I saw lots of geese.

EOB on the other hand occasionally used PI forms with perfective meaning.

12. ban-bu-n-iyn  
1sgO-hit-UNM-PI  
He hit me.

The variations exemplified in 11 and 12 suggest that there is no clearly determined markedness relationship between the two categories in Warray.

### 3.8.3 Past Positive Irrealis.

The PPIRR is used to describe all past irrealis situations which involve intention, obligation, attempt or desire on the part of the Subject. The category is formally marked by the combination of the Irrealis prefixes and the Unmarked Suffixes.

1. gat-yiyn  
IRR1sgS-go P  
I was going to go.

2. gan-ba-jim-in ngikba-yang  
IRR-3plS-come-P night-ABL  
They should have come this morning.

3. wek gat-dirrim-bu-n bin wek a-gutjgutj  
fire IRR1sgS-light-Aux-P but firewood Cl-wet  
I tried to light a fire but the firewood was wet.

4. gan-in-gubal-le-n  
IRR-1/2plO-nearly-shoot-P  
He nearly shot us.

5. nuw-iyn juluk-m-iyn wik ngek-u-wu gat-bi-rl-u  
kick-PP spill-Aux-PP water 1sg-OBL-DAT IRR1sgS-drink-P-DAT  
He kicked my water and spilt it. I wanted to drink it.

The PPIRR is not normally used to describe Past Irrealis situations involving the particle guyn Mistaken Opinion, which usually refers to the Speaker's, and not the Subject's mistaken opinion (5.).

6. guyn ajang.gi bulbul ana-lagi-yn a-muku an-ga-ni-ni  
M.O. maybe sick 2sgO-push-PP Cl-good 2sgS-NP-PR-sit  
I thought maybe you were sick but you are okay.

There is one example of a PPIRR VC occurring with guyn.

7. but-ganimup-m-iyn guyn gat-but-ga-n-u  
1sgS->3plO-forget-Aux-PP M.O. IRR1sgS-3plO-take-PP-DAT  
bin amala  
but Neg  
I forgot them. I thought that I had taken them (to school) but No (I had forgotten them).

Counterfactual conditionals (those with past time reference) take the PIRR.

8. amala gan-ganimup-m-arl-u andum gan-many-u-n  
Neg IRR-forget-Aux-P-DAT bullet IRR-get P-DAT-PRM  
wang gan-ma-le-n  
animal IRR-1dlinCS-shoot-P  
If you had not forgotten to get the bullets, we could have shot something.

Past situations whose realisation the Speaker is uncertain of may be expressed in two ways. If the uncertainty is modalised within the verb form then the PPIRR is used.

9. gan-yiyn  
IRR-go P  
He might/could have gone.

Alternatively the uncertainty may be modalised by the clause level operators ajang.gi might be, must be and/or -wa could be (see 5.), which take Realis verb forms.

11. ajang.gi yajiyn yajiyn-wa  
maybe went went-could be  
Maybe he went. It could be that he went.



### 3.8.4 The Non-Past Positive Irrealis and the Non-Past Indicative.

These two categories describe positive future situations. The NPIRR is formally marked by the combination of the Irrealis prefixes (4.4) and the NPIRR suffixes (4.5). The NP is formally marked by the NP prefixes (4.4). In simple clauses the NPPIRR is used to describe events whose realisation the Speaker is uncertain of.

1.     gat-yang  
      IRR1sgS-go NP  
      I may/might/could go.

As with the PPIRR (4.8.3 10 and 11) it is also possible for uncertainty to be modalised by the clause level operators *ajang.gi* might be, must be and/or *-wa* could be (5.) which take Realis verb forms.

2.     ajang.gi bat-yajiyn     bat-yajiyn-wa  
      maybe 1sgSNP-go A 1sgSNP-go A-could be  
      Maybe I will go. It could be that I will go.

In simple clauses the NP describes present non-perfect imperfective situations (4.8.1) and futures other than those described by the NPPIRR. Within the NP present is distinguished from future in a complicated way by reduplication (4.7). In the future the NP has an implicature of intention or desire on the part of the agent.

3.     bat-yajiyn  
      1sgSNP-go A  
      I will/am going to/want to go.

This implicature may be cancelled.

4.     bali-gubal-jim  
      1plSNP-nearly-come  
      We have nearly arrived.

The NP is used of situations which have no specific time reference, but are predicated as being true of the present.

5.     a-garla a-muku ga-wirrin-bu-n  
      Cl-3sg Cl-good NP-sing-Aux-NP  
      He sings well.

### 3.8.5 The Desiderative.

The desiderative is a problematic and anomalous category. It is found only with 1st person Subjects and indicates that there is some impediment to the satisfaction of a desire of the speaker's.

1. amala garriyn-diki-nga yiliyn an-ga-ji-yn  
Neg IRR1sgS->2sgO-really-hear how 2sgS-NP-say-NP  
barriyn-nga-n-u-wirru  
1sgS->2sgONP-hear-NP-DAT-properly

I cannot really hear what you are saying. I want to be able hear (what you are saying) properly.

2. yayn guta wetji barriyn-na-n-u  
Come IMP this way granddaughter 1sgS->2sgONP-see-NP-DAT  
Come here granddaughter. I want to look at you.  
(spoken when the little girl would not come near)

In the Non-past Indicative 1st person Subjects take the Set A suffixes, whereas 2nd and 3rd person Subjects take the Unmarked Suffixes (4.5). However in the desiderative 1st person Subjects take the Unmarked Suffixes, followed by what is formally the Dative suffix (c.f. 3.). The Dative suffix is also the adjunction marker in Warray (5.). Therefore for 2nd and 3rd person Subjects there is no formal distinction between adjunction marked Non-past forms and desiderative forms.

Adjunction marking of a clause indicates that interpretation of that clause requires recourse to information beyond that provided in the clause (5.). As desiderative clauses require recourse to information beyond the clause (viz. the impediment) there is no reason, if they are not so formally differentiated, to distinguish them from adjunction marked Non-past clauses. As such there is no reason to posit a desiderative category separate from adjunction marked forms for 2nd and 3rd person Subject Non-past forms (i.e. there is no reason to establish a covertly marked desiderative category for 2nd and 3rd Subject forms on the basis of paradigmatic analogy from 1st person Subject forms). Therefore the desiderative will be recognised only for 1st person Subject.

### 3.8.6 The Imperative.

Positive imperatives take the IMP suffixes. In all examples they have 2nd person reference and are unmarked for singular Subjects and take ba- for plural Subjects. This is the marking pattern in the Past Indicative for 3rd person

reference. Negative imperatives are not distinguished from other NPNeg forms. Imperatives take the normal Object prefixes.

1.     ba-yang       ba-yajiyn  
2plS-go IMP 3plS-go PP  
You lot go! They went.

2.     amala gan-a-bu  
Neg IRR-2plS-hit  
Don't you lot hit him!

### 3.8.7 The Hortative.

The two Subject prefixes found in positive hortatives are ma- 1dlinc and i- 1pl. These same prefixes are also found in the Past Indicative. Hortatives are distinguished from Past Indicative verb forms by the fact that they take the UNM suffixes (glossed HOR)

1.     ma-yiyn       ma-yajiyn  
1dlincS-go HOR     1dlincS-go PP  
Let's go     We went.

2.     i-yiyn        i-yajiyn  
1plS-go HOR 1plS-go PP  
Let's go     We went.

Hortatives take the normal Object prefixes.

### 3.9 Directional and Motional Suffixes.

#### 3.9.1 -boy : The Perlative.

This suffix has two related meanings. One of these is equivalent to 'along' in English.

1.     ga-jarl-ja-rl-boy  
NP-PR-eat-NP-along  
He is eating while going along.

2.     jarniyn na ana-ga-li-mayn-boy  
kangaroo look there-NP-jump-Aux NP-along

Look at that kangaroo jumping along there.

3. al-wulgan nguny-u-wu ga-ng-boy bordaan  
F-sibling 2sg-OBL-DAT take-IMP-along Darwin  
an-ga-yiny-u-n  
2sgS-NP-go NP-DAT-PRM  
Take your sister along with you when you go to Darwin.

Its other function is to emphasise that an action is taking place near, on or through the boundaries of an entity. As such it has a number of translations.

4. an-jili nyim-boy  
P-mouth enter-perl  
He went through the gate.

5. dirri?-m-iyn-boy yumbal-lik an-wak-u  
crawl-Aux-PP-perl log-LOC Cl-little-OBL  
The baby has crawled under the log.

6. yajiyn jap-lik amala gan-na-n yajiyn-boy  
went road-LOC Neg IRR-look-NP went-perl  
He went out onto the road. He did not look. He just went out onto it.

7. na an-wak ga-dirri-m-arl-boy wek-lik  
see Cl-little NP-crawl-Aux-NP-perl fire-LOC  
Look out, the baby is crawling near the fire.

8. at-na-y munjiwa mi-boy ga-ngi at-nat-warli-yn  
1sgS-see-PP knife got-perl take-PP 1sgS-IO-call out-PP  
al-gulbe may ngek-u-wu munjiwa at-nat-ji-yi nawa-m  
F-woman get IMP 1sg-OBL-DAT knife 1sgS-IO-say-PP take off-PP  
I saw him grab up the knife and take it. I yelled out to a woman. "Get my knife" I said to her. She took it off him.

3.9.2 -guya : here.

This suffix was used only by EOB. It indicates direction of the activity described by the verb towards the present location of the speaker. It is most common with motional verbs.

1. nyim-i-guya willi-lik  
enter-IMP-here house-LOC

Come inside here into the house.

2. gaji warri-ba-?lul ba-bu-ji-n-iyn mimi wayi-yn-guya  
that child-PL-pair 3plS-hit- recip-UNM-PI uncle return-PP-here  
That pair of children were fighting when uncle came back here.

However it is compatible with any directable activity.

3. bali-nyip-m-iyn in-na-guya bulbul  
1plSNP-swim-Aux-A 1/2plO-look-here mother  
We are swimming! Look here at us mother!

\_For this and following 3plO forms in Table 4.5 EOB uses bin- where DW uses bun-.

\_Despite the English translation there is no evidence that this form is perfect in the sense given of "present relevance of a past state" in Warray.

#### 4.2.4 Semantic Range of the Categories.

##### 4.2.4.1. Past/Non-Past.

The Past vs Non-Past distinction in Warray is a somewhat complicated one both morphologically and semantically. Morphologically the distinction involves both the suffix and prefix systems. In the Irrealis the distinction is made by means of the suffix system. The NPIRR takes the its own particular suffix set, whereas the PIRR take the Unmarked Suffixes. In the Indicative the distinction is made by means of the prefix system. The NP takes the NP prefixes, whereas the PP and PI take the Unmarked prefixes.

Semantically the distinction is not in fact a simple past vs non-past distinction. All events which are past or perfect and most which are present perfective take the Past forms, while future and present non-perfect imperfective events take the Non-Past forms.

The definitions of perfective/imperfective and perfect used are those given in Comrie 1976. The "term perfective .... denotes a situation viewed in its entirety, without regard to internal temporal consistency" (ibid p12). The imperfective involves "explicit reference to the internal temporal structure of a situation, viewing a situation from within (ibid p23). The perfect "refers to a past situation which has present relevance" (ibid p12).

##### a.) Indicative.

1. at-nyip-m-iyn 1sgS-swim-Aux-PP I swam.

2. at-nyip-m-al-ayn  
1sgS-swim-Aux-UNM-PI  
I was swimming.

3. bat-nyip-m-iyn  
1sgSNP-swim-Aux-A  
I am swimming, I will swim.

4. at-gulu-j-i-jiyn ngikba-yang at-nyal-m-iyn  
1sgS-stand-Aux-UNM-PI night-ABL 1sgS-tired-Aux-PP  
I have been standing up all morning/since morning. I am tired.

5. bat-gulu-j-ang  
1sgSNP-stand-Aux-A  
I am standing up, I will stand up.

6. mirral jul-j-ang  
sun go down-Aux-PP  
The sun has gone down.

7. mirral ga-gubal-jul-j-i  
sun NP-nearly-go down-Aux-NP  
The sun has nearly gone down.

8. mirral ga-jul-j-i  
sun NP-go down-Aux-NP  
The sun is going down.

The preceding eight examples involve the active verbs nyip-m-al "to swim", gulu-j-ang "to stand" and jul-j-ang "to go down". It may be observed that past (ex's 1 and 2) and perfect situations (ex's 4 and 6) take the Unmarked prefixes, whereas future and non-perfect imperfective present situations (ex's 3, 5, 7 and 8) take the NP prefixes (ex. 7 has a perfect translation in English. However there is no evidence that the Warray form has a perfect meaning [present relevance of a past situation] as the Warray form in ex. 4 appears to).

9. at-bil-mi wang ga-ba-ngum-bu-n  
1sgS-smell-Aux PP meat NP-3plS-cook-Aux-NP  
I can smell the meat they are cooking.

10. at-na-y  
1sgS-see-PP  
I can see him. I saw him.

11. an-dum a-muku ga-nan-na-n  
BP-eye Cl-good NP-PR-see-NP  
He can see well.

12. nal in-ga-nan-na-n  
man n3plO-NP-PR-see-NP  
The man is looking at us.

13. at-mitj-na-y  
1sgS-know-Aux-PP  
I know him.

The preceding five examples involve the verbs bil-mi "to smell", ngum-bu-m "to cook" and na-y either as a main verb meaning "to see/look" or as an

auxiliary in mitj-na-y "to know". It may be observed that present perfective events take the UNM prefixes ("I can smell" in ex. 9, "I can see him" in ex. 10 and the present stative "I know him" in ex. 13), whereas the other present events, which are all non-perfect imperfective (progressive in ex 9 and 12, habitual in ex 11) take the NP prefixes.

14. at-woyang-ji-yn  
1sgS-hungry-inch-PP  
I was hungry, I am hungry

15. bat-woyang-ji-yn  
1sgSNP-hungry-inch-A  
I will be hungry.

16. an-wak a-lil ga-woyang-ji-n muya-wu  
Cl-little M-boy NP-hungry-inch-NP tucker-DAT  
The little boy is always hungry for food.

17. wang jolong-ji-yn  
meat ripe-inch-PP  
The meat is cooked.

18. wang ga-gubal-jolong-ji-n  
meat NP-nearly-ripe-inch-NP  
The meat is nearly cooked.

Present tense inchoatives normally take the UNM prefixes. They would normally be both perfect and perfective (to have become X = to be X). However non-perfect imperfective present inchoatives such as ex's 16 and 18 take the NP prefixes.

b.) Negatives.

19. amala garriyn-nga-n  
Neg IRR1sgS->2sgO-hear-P  
I could not hear you.

20. amala gat-na-n marriwaku-yang yajiyn ajang.gi  
Neg IRR1sgS-see-P long time-ABL go PP must be  
gubamji-yn  
grow up-PP  
I have not seen him for a long time since he went. He must be grown up.



21. amala garriyn-nga  
Neg IRR1sgS->2sgO-hear  
I can't hear you.

22. gaji gerranglul amala gan-ba-gelngaygmiyi-n-lul  
that two Neg IRR-3plS-married-NP-pair  
Those two are not married.

23. an-wak-waku ga-wirriyn-m-al an-bat a-warru  
Cl-little-DIM NP-walk around-Aux-NP P-knee Cl-bad  
galgal ga-yiyn-yiyn amala gan-gamu-ji-n  
slow NP-PR-go NP Neg IRR-tough-inch-NP  
The kid is walking around. His knees are no good. He walks slowly. They  
(his knees) have not toughened up.

These four verbs nga-m "to hear", na-y "to see", gelngaykmiyi-yn "to be married" and gamu-ji-yn "to toughen" all take -n as their Unmarked suffix. With nga-m and na-y (active) it is attested with past (ex. 19) and perfect meaning (ex. 20). In ex. 21 where nga-m has a present perfective meaning, the NPIRR verb form is found. All present negative statives and inchoatives attested are of the form shown in ex's 22 and 23 with the UNM suffixes. The inchoative amala gan-gamu-ji-n "have not toughened up, are not tough" in ex. 23 appears to be perfect in meaning. It would appear likely that present non-perfect imperfective meanings "are not toughening up" would be conveyed by the corresponding NP form amala gan-gamu-ji. However there are no examples of present negative inchoatives with an unambiguously non-perfect imperfective meaning.

24. amala gat-ngarndidep-m-al  
Neg IRR1sgS-thirsty-Aux-NP  
I am not thirsty.

25. amala gan-lili-m-i ga-wirriyn-m-al-boy  
Neg IRR-run-Aux-NP NP-walk around-Aux-NP-PERL  
He is not running, He is walking around.

Both these verbs ngarndidep-m-al "to be thirsty" and lili-m-al "to run", take -al as their Unmarked suffix and -i as their NPIRR suffix. The stative ngarndidep-m-al takes -al in the present, whereas the non-stative lili-m-al takes -i in the present.

As mentioned earlier it appears that in the indicative the factors affecting marking in the present are perfect/perfective vs non-perfect

imperfective. Present tense statives are inherently perfective. They take the same marking as past tense forms. Present tense inchoatives are normally both perfect and perfective and normally take the same marking as past tense forms. However if they have a non-perfect imperfective meaning then they will take the same marking as future forms. Other verbs usually take the same forms in the present as in the future as they are most commonly found with non-perfect imperfective meaning, but if they do have perfect or perfective meaning then they will take the same forms as the past.

In the negative stative verbs show a future/non future distinction, as do inchoatives on the evidence available. These negative statives and inchoatives are perfective or perfect. Other perfect Negative such as ex. 20 "I have not seen him" take the same marking as past negative, but present perfective Negatives such as "I cannot hear you" (ex 22), take the same forms as the future, whereas in the Indicative present perfectives take the same marking as the past.

Clearly the nature of the distinction between the two morphological categories is complicated. The two major sets of factors relevant to the distinctions are tense - past/present/future; and aspectual - perfect/ non-perfect and perfective/imperfective. Of the two sets of factors tense is the primary distinction as it is only in the present that aspectual distinctions are relevant. While there are a number of factors relevant to the analysis of the distinction, the significant fact is that the language makes a binary morphological distinction, essentially between events which are either past or perfect or present perfective vs events which are neither past nor perfect nor present perfective (though the variations in the marking of present perfectives must be noted).

As the distinction is primarily concerned with tense it would seem most reasonable to give the two categories tense based glosses. The category concerned with past, perfect (the perfect having a component of past meaning) and most present perfectives would appear to be best described as Past, with the other category being Non-Past (all events in this category are non-past). The variations from a strict past/non-past system must however be noted.

#### 4.2.4.2. Irrealis.

The two major distinctions within the Irrealis are Past/Non-Past and Positive/Negative. The NPIRR takes the NPIRR suffixes. The PIRR takes the UNM suffixes. Positives simply consist of the appropriate tense IRR VC. Negatives consist of a phrasal combination of the appropriate tense IRR VC and the Negator *amala*. This combination of *amala* and a IRR VC forms a tightly knit adjunction. *Amala* nearly always precedes the IRR VC (there are a couple of examples with it immediately following), and mostly immediately precedes it (there are a few

examples with one word occurring between the two). Within the PNeg the habitual past is distinguished from the non-habitual past by CV reduplication of the verb.

#### 4.2.4.2.1. Negatives.

The following table (taken from Table 4.1) shows the range of meanings covered by Negative verb forms.

##### Non-Past Negative

amala gali-gut-m-i, amala gali-na

We can/will/should/ought not put it down/see him, We are not putting it down/looking at him, Let's not put it down/look at him

amala gan-ba-gut-m-i, amala gan-ba-na

You (pl) can/will/should/ought not put it down/see him, You (pl) are not putting it down/looking at him, Don't you (pl) put it down/look at him

##### Past Non-Habitual Negative

amala gali-gut-m-al, amala gali-na-n

We did/could/not put it down/see him, We should/could/ought not to have put it down/seen him, We have/had not put it down/seen him, We was not putting it down/looking at him.

##### Past Habitual Negative

amala gali-gu-gut-m-al, amala gali-nan-na-n

We never used to put it down/see him

Within the Negative verb forms the verbal suffixes carry information as to tense; and reduplication carries aspectual information. Given these associations it would appear reasonable to gloss the NPIRR suffixes as NP (for Non-Past); the Unmarked suffixes as PNH (Past Non-Habitual) when they occur in a form without reduplication, and as P (Past) when they occur in a reduplicated form; and the reduplicated segment as H (Habitual). Taking the forms for "to put" from the above examples, these would produce the following glosses.

Non-Past Negative amala gali-gut-m-i

Neg IRR1plS-put-Aux-NP

Past Non-Habitual Negative amala gali-gut-m-al

Neg IRR1plS-put-Aux-PNH

Past Habitual Negative amala gali-gu-gut-m-iyn

Neg IRR1plS-H-put-Aux-P

#### 4.2.4.2.2. Past Positive Irrealis.

The PPIRR is used to describe all past irrealis situations which involve intention, obligation, attempt or desire on the part of the Subject.

1. gat-yiyn

IRR1sgS-go P

I was going to go.

2. gan-ba-jim-in ngikba-yang

IRR-3plS-come-P night-ABL

They should have come this morning.

3. wek gat-dirrim-bu-n bin wek a-gutjgutj

fire IRR1sgS-light-Aux-P but firewood Cl-wet

I tried to light a fire but the firewood was wet.

4. gan-in-gubal-le-n

IRR-n3plO-nearly-shoot-P

He nearly shot us.

5. nuw-iyn juluk-m-iyn wik ngek-u-wu

kick-PP spill-Aux-PP water 1sg-OBL-DAT

gat-bi-l-u

IRR1sgS-drink-P-DAT

He kicked my water and spilt it. I wanted to drink it.

The exact interpretation of a PPIRR VC depends partly on context, and partly on the semantics of the verb stem. Uncontrolled active verbs cannot be intentionally or obligatorily interpreted. Thus

6. waynla-waynlak gan-li-ngan ngek-u-lik

R-now IRR-fall-P 1sg-OBL-LOC

Just then he nearly fell on me.

cannot mean either of \*'Just then he was going to fall/ should have fallen on me'.

The PPIRR is not normally used to describe Past Irrealis situations involving the particle guyn 'Mistaken Opinion', which usually refers to the Speaker's, and not the Subject's mistaken opinion (see 5.).

7. guyn ajang.gi bulbul ana-lagi-yn a-muku an-ga-ni-ni  
M.O. maybe sick 2sgO-push-PP Cl-good 2sgS-NP-PR-sit  
I thought maybe you were sick but you are okay.

There is one example of a PPIRR VC occurring with guyn;

8. but-ganimup-m-iyn guyn  
1sgS->3plO-forget-Aux-PP M.O.  
gat-but-ga-n-u bin amala  
IRR1sgS-1sgS->3plO-take-PP-DAT but Neg  
I forgot them. I thought that I had taken them (to school) but No (I had forgotten them).

Counterfactual conditionals (those with past time reference) take the PIRR.

9. amala gan-ganimup-m-al-u andum gan-many-u-n  
Neg IRR-forget-Aux-P-DAT bullet IRR-get P-DAT-CONS  
wang gan-ma-le-n  
animal IRR-1dlincS-shoot-P  
If you had not forgotten to get the bullets, we could have shot something.

Past situations whose realisation the Speaker is uncertain of may be expressed in two ways. If the uncertainty is modalised within the verb form then the PPIRR is used.

10. gan-yiyn  
IRR-go P  
He might/could have gone.

Alternatively the uncertainty may be modalised by the clause level operators ajang.gi "might be, must be" and/or -wa "could be" (see 5.), which take Realis verb forms in the data presently available.

11. ajang.gi yajiyn yajiyn-wa  
maybe go PP go PP-could be  
Maybe he went. It could be that he went.

In the PPIRR the UNM suffixes would appear to be the morphemes most closely associated with the Past meaning of this category and so they are glossed P (for Past).

4.2.4.3. The Non-Past Positive Irrealis and the Non-Past Indicative.

These two categories describe positive future situations. In simple clauses the NPPIRR is used to describe events whose realisation the Speaker is uncertain of.

1.     gat-yang  
      IRR1sgS-go NP  
      I may/might/could go.

As with the PPIRR (4.2.4.2.1. ex's 10 and 11) it is also possible for uncertainty to be modalised by the clause level operators *ajang.gi* "might be, must be" and/or *-wa* "could be" (5.) which take Realis verb forms in the data presently available.

2.     *ajang.gi bat-yajiyin bat-yajiyin-wa*  
      maybe 1sgSNP-go A 1sgSNP-go A-could be  
      Maybe I will go. It could be that I will go.

In simple clauses the NP describes present non-perfect imperfective situations (4.2.4.1.) and futures other than those described by the NPPIRR. Within the NP present is distinguished from future in a complicated way by reduplication (4.2.3.2.). In the future the NP has an implicature of intention or desire on the part of the agent.

3.     *bat-yajiyin*  
      1sgSNP-go A  
      I will/am going to/want to go.

which may be cancelled.

4.     *bali-gubal-jim*  
      1plSNP-nearly-come  
      We have nearly arrived.

The NP is used of situations which have no specific time reference.

5.     *a-gala a-muku ga-wirrin-bu-n*  
      NF-3sg Cl-good NP-sing-Aux-NP  
      He sings well.

While the occurrence patterns of the NP and NPPIRR in simple clauses are unproblematic, the same cannot be said for their occurrence in sentences. There

are two problematic areas. One is in conditional sentences the NPPIRR and NP appear to be in virtual free variation.

6. bat-nat-ji-yi bat-na-y-u  
1sgSNP-IO-say-A 1sgSNP-see-A-DAT  
I will tell him when/if I see him.

7. gan-bul-m-i gakuy-u-n wayn  
IRR-angry-Aux-NP after-DAT-CONS like that  
gan-ji-wu-n  
IRR-say-DAT-CONS  
He might/will get angry if you say that.

8. yebe-miyn gali-watj-yang-u-n  
1pl-first IRR1plS-hurry up-go NP-DAT-CONS  
gali-watj-wayi bigin lurra ga-ba-yiyn  
IRR1plS-hurry up-return 3pl FOC behind NP-3plS-go NP  
If we hurry up and go first and hurry back, they will go behind.

9. ngurlak bali-ni-wiyn ga-ba-jim-in-u  
this place 1plSNP-stay-A NP-3plS-come-NP-DAT  
bali-bun-na-y gali-yang-u-n amala  
1plSNP-3plO-see-r IRR1plS-go NP-DAT-CONS Neg  
gali-bun-na  
IRR1plS-3plO-see  
If we stay here, when they come we will see them, if we go we will not see them.

10. gakoy gat-gulu-j-ayn gat-nyal-m-i  
after IRR1sgS-stand-Aux-NP IRR1sgS-tired-Aux-NP  
If I stand up I might/will get tired.

11. gijarniyn amala gan-wal-m-i ga-ba-bi-l  
beer Neg IRR-hide-Aux-NP NP-3plS-drink-NP  
ga-ba-wul-al  
NP-3plS-finish-NP  
If you don't hide the beer, (those boys) will drink it and finish it up.

12. lumbal an-ga-mayn a-warru gaji gakuy-u-n  
tree sp 2sgS-NP-get NP Cl-bad that after-DAT-CONS  
didimi gan-a-li gan-derretbu-yi bilpmi

itch IRR-2sgO-pierce IRR-scratch-refl sore  
gan-a-bula  
IRR-2sgO-make

If you touch that lumbal tree, that is no good, you will pierce yourself and get itchy and scratch. It will make you sore.

13. bat-yajiyin bodawan waynlak bat-ga-ngi bin  
1sgSNP-go A town today 1sgSNP-take-A but  
amala-wu-n mimi bat-ngitj-wo-y ga-ga-n  
Neg-DAT-CONS uncle 1sgSNP-ask-Aux-A NP-take-NP

If I go to town today I will take her, but if I don't I will ask uncle to take her.

14. arriyn-ji-yi marriwaku-yang gaji gawoy  
1sgS->2sgO-say-PP old-ABL that again  
garriyn-ji-wu-n gakoy  
IRR1sgS->2sgO-say-DAT-CONS after  
garriyn-ya-m-i  
IRR1sgS->2sgO-tell off-Aux-NP

I have already told you that a while ago. If I have to tell you again, I will tell you off.

There do not appear to be any clearcut real world factors controlling the appearance of the NP vs the NPPIRR. It would seem likely that the difference is one of perspective. One factor that appears to affect the choice is the Speaker's assessment of the desirability of the sequence of events. It may be observed that if the Speaker views the sequence of events as undesirable then the VC's are likely to be in the NPPIRR. This is most clearly demonstrated in ex. 9 where the protasis (the "if" clause) of the first desirable sequence is in the NP, whereas the protasis of the second undesirable sequence is in the NPPIRR. The NPPIRR is not however restricted to undesirable sequences. In ex. 8 a desirable sequence has an NPPIRR protasis. Nor do all undesirable sequences have protases expressed by the NPPIRR. In ex. 12 the protasis an-ga-mayn "If you touch it" is in the NP and in ex. 11 the apodosis (the "then" clause) is in the NP.

Another factor which appears to affect the choice is the Speaker's assessment of the likelihood of the occurrence of the sequence of events. English elicitation bases using "when" (implying that the Speaker is not uncertain about the realisation of the events in the sequence) as opposed to those using "if" (implying uncertainty about their realisation) were invariably translated with NP VC's. Thus an elicitation base "I will tell him when I see him" was only translated as in ex. 6. This would suggest that the use of NPPIRR



VC's indicates that the Speaker is uncertain about the realisation of the events in the sequence, which is the function of the NPPIRR in simple clauses. However even if this is the case the relationship between the NP and the NPPIRR is still different in conditional sequences, from simple clauses, as the NP can be used to translate "if" elicitation bases (ex. 6).

In the absence of detailed textual and contextual information on the occurrence patterns of the NP and NPPIRR in conditional sequences (and such information is not reliably available through elicitation), this problem is probably insoluble.

The other problematic area in sentences involves 1stSNP verb forms. In most situations 1stSNP verb forms take the NP prefixes and the Set A suffixes. However there are a small number of examples where they take the Unmarked suffixes (as do 2nd and 3rdSNP verb forms).

15. amala garriyn-diki-nga yiliyn an-ga-ji-yn  
Neg IRR1sgS->2sgO-almost-hear how 2sgS-NP-say-NP  
barriyn-nga-n-u-wirru  
1sgS->2sgONP-hear-NP-DAT-really

I can hardly hear what you are saying. I really want to listen to you.

16. yayn gutda wetji barriyn-na-n-u  
Come IMP this way granddaughter 1sgS->2sgONP-see-NP-DAT

Come here granddaughter. I want to look at you. (spoken when the little girl would not come near)

Forms such as these barriyn-nga-n-u-wirru and barriyn-na-n-u (instead of the expected \* barriyn-nga-m-u-wirru and \* barriyn-na-y-u) are attested only in sentences of this type, where the Speaker expresses a desire to do something and there is an impediment to the fulfilment of this desire (either given in the text ex. 15, or known from context ex. 16). These forms are rare and difficult to elicit and it is possible that they are mistakes. In the absence of more detailed data on these forms it is not possible to comment further on their status or the nature of the contrast with the normal 1stSNP forms taking the Set A suffixes.

The NP category is realised by both prefixes and suffixes for 2nd and 3rdSNP forms. The 2nd and 3rdSNP forms take the NP prefixes and the UNM suffixes (in contrast with the PP which takes the Set A suffixes and the PI which uses the UNM suffixes as part of the stem and takes the PI suffixes). Therefore the UNM suffixes are glossed NP for 2nd and 3rdSNP forms (and also for 1stSNP forms such as ex's 15 and 16). For most 1stSNP forms the Set A suffixes are used. These suffixes do not contrast with the Past (as the same forms are used in the PP), nor do they establish a person contrast (the prefixes do this anyway and as

we have seen some 1stSNP forms take the UNM suffixes). Therefore it does not seem possible to assign a function to the Set A suffixes in the 1stSNP and so they will simply be glossed A (for Set A).

#### 4.2.4.4. Past Perfective and Past Imperfective.

These two categories describe past realis situations. The PP must be used to describe any past realis perfective. It is also found in some examples describing past realis imperfective setting situations and to this extent it appears that the PP is unmarked with respect to the PI. The Past Imperfective is the form normally used to describe past realis imperfective situations. An example showing habitual meaning is;

1.     ma-yungoy-iyn wang-u ma-bu-ka-ngi  
      ldlincS-go-PI meat-DAT ldlincS-hunt-Aux-PP  
      We used to go hunting for game.

The PI may be used to present a situation as a process rather than an event.

2.     lili-m-al-ayn yarrba-yang ga-wok-ngirr-m-al  
      run-Aux-UNM-PI long way-ABL NP-heavy-breathe-Aux-NP  
      a-mudek  
      Cl-big  
      He has run/been running a long way. He is puffing and panting.

This is a classic use of imperfectives cross-linguistically. Another classic use is in describing a situation leading up to an end point with the PI and describing the completion with the PP.

3.     warlpe bula-n-iyn wul-iyn  
      loincloth make-UNM-PI finish-PP  
      She has finished that loincloth that she was making.

4.     wek nu-n-iyn yumbal no-y li-yn  
      fire burn-UNM-PI tree burn-PP fall-PP  
      The fire was burning the tree. It burnt through and the tree fell down.

Yet another classic use of imperfectives, if not the classic use of imperfectives is illustrated in;

5.     at-yajiyn at-nyip-m-al-ayn bupal-lik

1sgS-go PP 1sgS-swim-Aux-UNM-PI creek-LOC  
at-na-y abulangu at-ngal-ni-wiyn wik-yang  
1sgS-see-PP crocodile 1sgS-come out-Aux-PP water-ABL

I went down to the creek. I was swimming when I saw a crocodile and jumped out of the water.

where the setting situation is in the PI and the new situation in the PP. There are as previously mentioned examples where the setting situation is described with a PP verb form.

6. jap-lik at-yajiyn at-na-y nganbal  
road-LOC 1sgS-go PP 1sgS-see-PP goose  
a-gubam-u ba-ni-niyn  
Cl-lots-OBL 3plS-sit-PI  
I was walking along the road when I saw lots of geese.

With punctual verbs, the PI indicates repetition.

7. an-wak-waku i-yu-ng-lul mawiyn-yungoy-iyn  
Cl-little-DIM 1plS-lie-PP-pair turn over-Aux-PI  
ban-nawa-n-iyn yurr-mayim ngek-u ngek  
1sgO-take off-UNM-PI pull off-Aux PI 1sg-DAT 1sg  
waykan at-yu-ng  
exposed 1sgS-lie-PP

The little one (and I), we slept together. She kept on turning over and taking the blanket off me. Me, I slept uncovered.

8. i-gulu-j-i-jiyn i-yajiyn jap-lik gawoy  
1plS-stand-Aux-UNM-PI 1plS-go PP road-LOC again  
i-gulu-j-ang walak-ji-yn wik amala  
1plS-stand-Aux-PP hot-inch-PP water Neg

We had to keep on stopping. We would go along the road again and stop. (The car) would get hot. There was no water (in the radiator).

In the same way that it appears Repetition reduplication has a number of possible secondary interpretations, so it appears that the PI has the same possible secondary interpretations, presumably arising from its function of indicating duration/repetition of a situation.

8. angiku nyi-bu-n-iyn gaging nyikba  
dingo cry-Aux-UNM-PI yesterday night  
The dingoes were howling last night.

9. yumbal an-dirlmi-wu i-gorri-yn-iyn an-wak-waku  
 stick Cl-dry-OBL 1plS-break-UNM-PI Cl-little-DIM  
 We broke up lots of little dry sticks.

10. yumbal li-ngan-iyn a-gubam jap-lik ga-duwak-yu  
 tree fall-UNM-PI Cl-lots road-LOC NP-across-lie  
 Lots of trees have fallen down. They are lying across the road.

11. an-bik bok-lil-iyn a-gubam gaging  
 P-string make string-Aux-PI Cl-lots yesterday  
 She made lots of string yesterday.

In these examples it may be observed that the duration/repetition of the activity, with singular verbal prefixing, is also interpreted to mean that there was a large amount of a particular entity involved. This secondary interpretation proceeds on an ergative basis (i.e. the PI verb form will be interpreted as relating to the Object, if there is one. If there is not it will be interpreted as applying to the Subject). While it has been observed with animates such as dingoes, ex 8, it is usually found with inanimates.

For all regular and nearly all irregular verbs the stem for the PI inflections, -(C)iyn or -ayn (the choice is conjugationally determined see 4.2.2.1.), is the core + the Unmarked suffixes. As the Unmarked suffixes function effectively as part of the stem and do not appear to contribute to the meaning of the PI, they are glossed as UNM. PIs not formed on this pattern consist of a stem which is idiosyncratic to the PI and -iyn. Two verbs, mi 'to get' and bi-l 'to drink' have completely irregular forms mayim and bilbilang respectively.

#### 4.2.4.5. The Imperative.

Positive imperatives take the IMP suffixes. In all examples they have 2nd person reference and are unmarked for singular Subjects and take ba- for plural Subjects. This is the marking pattern in the Past Indicative for 3rd person reference. Negative imperatives are not distinguished from other NPNeg forms. Imperatives take the normal Object prefixes.

1. ba-yang ba-yajiyn  
 2plS-go IMP 3plS-go PP  
 You lot go! They went.

2. amala gan-a-bu

Neg IRR-2plS-hit  
Don't you lot hit him!

#### 4.2.4.6. The Hortative.

The two Subject prefixes found in positive hortatives are ma- 'ldlinc' and i- 'lpl'. These same prefixes are also found in the Past Indicative. Hortatives are distinguished from Past Indicative verb forms by the fact that they take the UNM suffixes (glossed HOR)

1.     ma-yiyn       ma-yajiyn  
      ldlincS-go HOR   ldlincS-go PP  
      Let's go       We went.

2.     i-yiyn        i-yajiyn  
      lplS-go HOR lplS-go PP  
      Let's go       We went.

Hortatives take the normal Object prefixes.

#### 4.2.4.7. The Infinitive.

The Infinitive verb form consists of the Unmarked verb form and the dative case suffix. Its functions are considered in 5.4 which deals with Infinitive clauses.

### 4.3. Adverbial Modification.

There are a number of ways of adverbially modifying a VC. The most common way is with particles or nominals. However there are four bound adverbial modifiers, three prefixed and forming part of the VC and one suffixed to the VC.

#### 4.3.1. Prefixed Adverbs.

There are three prefixed adverbs found in Warray, gubal- "nearly", watj- "hurry up and", and diki- "really". These adverbs differ from the adverbial morphemes discussed in 4.1.1. (ex's 1- 7, 30 and 31) which are found only in a restricted set of stems and are subject to reduplication and so are analysed as part of the verb stem. These adverbs may be found with any verb stem (diki- is also found with nominals 3.) and are unaffected by reduplication. There is therefore no reason to treat them as part of the stem.

1. gan-in-gubal-le-n  
IRR-n3plO-nearly-shoot-P  
He nearly shot us (he missed).

2. bali-gubal-jim  
1plSNP-nearly-come  
We have nearly arrived.

3. i-watj-yiyn  
1plS-hurry up-go HOR  
Let's hurry up and go!

4. watj-bu  
hurry up-hit  
Hurry up and kill it!

5. bulbul-wirru diki-li-yn a-warru ga-yu-yu (O301)  
sick-properly really-fall-PP Cl-bad NP-PR-lie  
He has fallen really properly sick. He is no good.

6. diki-gujili-m-a guji-gujili-m-a  
really-fill-Aux-IMP R-fill-Aux-IMP  
an-ga-gujili-m-al-wirru  
2sgS-NP-fill-Aux-NP-properly  
Really fill it almost up! Keep on filling it up! You fill it up properly.

7. amala garriyn-diki-nga  
Neg IRR1sgS->2sgO-really-hear  
lit. I cannot really understand you.  
I can hardly understand you.

#### 4.3.2. -boy : The Perlative.

This suffix is the only suffix which attaches exclusively to VCs. It has two related meanings. One of these is equivalent to 'along' in English.

1. ga-jal-ja-l-boy  
NP-PR-eat-NP-along  
He is eating while going along.

2. jarniyn na ana-ga-li-mayn-boy  
kangaroo see there-NP-jump-Aux NP-along

Look at that kangaroo jumping along there.

3. al-wulgan nguny-u-wu ga-ng-boy bodawan  
F-sibling 2sg-OBL-DAT take-IMP-along Darwin  
an-ga-yiny-u-n  
2sgS-NP-go NP-DAT-CONS  
Take your sister along with you when you go to Darwin.

Its other function is to emphasise that an action is taking place near, on or through the boundaries of an entity. As such it has a number of translations.

4. an-jili nyim-boy  
P-mouth enter-perl  
He went through the gate.

5. dirri-m-iyn-boy yumbal-lik an-wak-u  
crawl-Aux-PP-perl log-LOC Cl-little-OBL  
The baby has crawled under the log.

6. yajiyn jap-lik amala gan-na-n yajiyn-boy  
go r road-LOC Neg IRR-see-NP go PP-perl  
He went out onto the road. He did not look. He just went out onto it.

7. na an-wak ga-dirri-m-al-boy wek-lik  
see Cl-little NP-crawl-Aux-NP-perl fire-LOC  
Look out, the baby is crawling near the fire.

8. at-na-y munjiwa mi-boy ga-ngi  
1sgS-see-PP knife get PP-perl take-PP  
at-nat-warli-yn al-gulbe may ngek-u-wu  
1sgS-IO-call out-PP F-woman get IMP 1sg-OBL-DAT  
munjiwa at-nat-ji-yi nawa-m  
knife 1sgS-IO-say-PP take off-PP

I saw him grab up the knife and take it. I yelled out to a woman. "Get my knife" I said to her. She took it off him.

#### 4.3.3. Adverbs.

Adverbs are either nominals or particles. This section examines those nominals and particles which function chiefly as adverbs.

1. wanba : just.

1.     nguyn nginyang wanba an-ga-ni-ni  
2sg what just 2sgS-NP-PR-sit  
What are you doing just sitting (there)?

wanba bat-ni-ni-wiyn  
just 1sgSNP-PR-sit-A  
I am just sitting.

2.     an-letma a-warrru ga-gubal-ngal-jim-in wanba waykan  
P-tooth Cl-bad NP-nearly-out-come-NP just exposed  
ga-wuyn-wu-yn  
NP-PR-hang-NP  
My bad tooth has nearly come out. It is just hanging loose.

2. wanbaliku : quietly.

This particle is not well attested and its precise meaning is not clear.

3.     at-ni-niyn wanbaliku  
1sgS-sit-PI quietly  
I was sitting down quietly.

3. wakmiwu : alone, on one's own.

This particle indicates that the Subject is acting on their own.

4.     a-gubam-u ba-wu?-bu-m ba-yajiyn ngek  
Cl-lots-OBL 3plS-clear off-Aux-PP 3plS-go PP 1sg  
wakmiwu bat-ni-ni-wiyn  
alone 1sgSNP-PR-sit-A  
The whole lot have cleared off and gone. I am sitting alone/by myself/on my  
own.

5.     wiji-yn wakmiwu amala gali-gorri-yn  
break-PP own Neg IRR1plS-break-P  
It broke on its own. We did not break it.

4. gebaku

The precise meaning of this nominal is not clear. It occurred once in an un-case-marked form with the following translation.



6. gebaku at-ni-niyn  
? 1sgS-sit-PI  
I was sitting on my own.

Its Ablative form means 'the wrong one'

7. ba-yami-ji-yn-lul a-gerrageli ngek  
3plS-argue- recip-PP-pair Cl-married couple 1sg  
ban-ya-m-iyn gebaku-yang bul amala wu  
1sgO-argue-Aux-PP ?-ABL trouble Neg give  
at-ni-niyn  
1sgS-sit-PI

That married couple argued and then he abused me. He had the wrong person.  
I did not give any trouble.

5. gawoy : again.

8. an-jerriyn ban-ji gawoy  
Cl-one 1sgO-say again  
Tell me one more time.

9. nal gaji gerranglul gawoy gaging-yang i-bun-na-y  
man that two again yesterday-ABL 1plS-3plO-see-PP  
It is those two men again that we saw yesterday.

10. giyak-li-liyn gaging njikpa waynlak gawoy  
sweat-Aux-PI yesterday night now again  
He was sweating all last night and again today.

6. walak

This particle appears to partly overlap with the range of gawoy, but it occurs in other contexts where its function is not clear.

11. ban-ji walak amala garriyn-nga-n  
1sgO-say again? Neg IRR1sgS 2sgOC-hear-P  
Tell me again. I did not hear you.

12. walak amba-lik ga-yu-yu-wa  
? where-LOC NP-PR-lie-could be  
I do not know where it could be.

In ex 11 walak appears to be equivalent to gawoy, but its meaning in 12 is unclear.

7. way : keep on, still.

13. way a-ga-ngunji-yn barritj-bu-m  
keep on 2plS-NP-talk-NP 1sgS->2pl0NP-hit-A  
ba-mot-m-a  
2plS-keep quiet-Aux-IMP  
If you lot keep on talking, I will hit you. Be quiet!

14. marriwaku at-yungoy-iny-u way bat-ngam-nga-m  
long ago 1sgS-go-PI-DAT still 1sgSNP-PR-hear-A  
le gaji at-mitj-na-y  
country that 1sgS-know-Aux-PP  
It is a long time since I have been (there, but) I still remember that  
country. I know it.

An alternative to using way is to use verbal repetition reduplication (4.2.3.1).

8. bili : hard.

Bili is one of the few morphemes which can occur both free and bound. When it occurs free it is a particle meaning 'hard, difficult'.

15. bili a-mudek an-ga-biyn-bi-yn muya jela  
hard Cl-big 2sgS-NP-PR-dig-NP tucker yam sp  
an-munak a-warru bat-yajiyn  
P-shoulder Cl-bad 1sgSNP-be A  
It is hard work when you dig for jela yams. My shoulder is tired.

Bili is however more usually found bound in a compound a-bili-gubam with the adjective a-gubam 'lots'. This compound appears to be equivalent in meaning to the free form bili.

16. matj a-bili-gubam in-ga-bukbuk-m-al wili-lik  
wind Cl-hard-lots n3pl0-NP-blow-Aux-NP house-LOC  
bat-nyim bat-yu-ng  
1sgSNP-enter 1sgSNP-lie-A

If this wind keeps on blowing on us so strongly, I am going to go into the house and sleep.

Bili is also found with imperatives in a form biliwarru which appears to consist of bili and the adjective root -warru 'bad'. Biliwarru appears to mean 'keep on' and as such is equivalent in meaning to way.

17. gule biliwarru ji a-lil angi ana-ga-nga-n  
story keep on say M-boy here 2sgO-NP-hear-NP  
Keep on telling that story to this boy. He is listening to you.

9. wayn : like that, in that manner.

18. wayn an-ga-muy-al amala gan-ngayk-m-i  
like that 2sgS-NP-lose-NP Neg IRR-keep-Aux-NP  
lit. You keep on losing things like that. You cannot keep anything.  
If you keep on losing things like that, you will not have anything left.

19. amala wayn gan-ji ngonni gaji an-ga-ngunji-yn  
Neg like that IRR-say word that 2sgS-NP-speak-NP  
a-warru  
Cl-bad  
Do not talk like that. Those words that you are speaking are bad.

20. juji wayn bula-m  
" like that make-PP  
(He called out) juji. Like that he made (that noise).

21. a-gala wayn bula-m  
NF-3sg like that make-PP  
He made it like that.

22. angujin wayn junguj-iyn  
name like that do-PI  
Angujin was like that. (thin when he was young)

10. ngumbarru : forever.

23. ngumbarru-wat bat-yajiyin amala gat-wayi  
forever-? 1sgSNP-go A Neg IRR-return  
I am going forever. I am not coming back.

24.   nal amala ngurlak ba-wu?-bu-m

man Neg this place here 3plS-clear off-Aux-PP

ba-yajiyn ajang.gi ngumbarru

3plS-go PP maybe forever

There is no-one here. They have cleared off and gone.Maybe forever.

11. giknurruwat : dead.

The verb bu-m covers both 'to hit' and 'to kill'. If the speaker wishes to indicate that 'to kill' is specifically intended then the particle giknurruwat is used.

25.   ngirri wayn bun-ga-be-be bali-bu-m giknurruwat

dog like that 3plO-NP-PR-bite NP 1plSNP-kill-A dead

If that dog keeps on biting people like that, we will have to kill it.

Giknurruwat can also occur with verbs such as la-m 'to spear, to shoot'.

26.   la-m jarniyn wat-m-iyn gawoy jabaja-ka-ngi

spear-PP kangaroo spoil-Aux-PP again sneak up-Aux-PP

la-m-wirru giknurruwat

spear-PP-properly dead

He missed the first shot at the kangaroo. He sneaked up again and speared it dead.

12. -wat.

The suffix -wat which occurs on ngumbarru in ex 23 and which appears to be frozen as part of the root in giknurruwat does not have any well defined meaning or function in Warray. Ngumbarru occurs with and without it about equally, with no difference in meaning that I have been able to discern.

Apart from occurring on ngumbarru and presumably being the final syllable in giknurruwat, -wat also occurs on demonstratives;

27.   njila-wat yajiyn

that way-? go PP

He went that way.

28.   amba-woy

where-one of

Which one (do you want)?

ngipa gengana-wat gaji amala  
that way over there-? that Neg  
The one that way. Not that one over there.  
(note the reduction of genganawu-wat to gengana-wat)

29. gutda-wat yayn  
this way-? come IMP  
Come this way.

As with ngumbarru it does not appear that the occurrence of -wat has any effect on the meaning of the words it is suffixed to. It was also found in;

30. yumbal ban-la-m gurratj-wat  
stick 1sgO-scratch-PP blood-?  
A stick scratched me and blood (flowed).

31. yiliyn-wat an-ga-bula-n buran  
how-? 2sgS-NP-make-NP boomerang  
How do you make a boomerang?

where again its contribution to the meaning of the construction is not clear. It may be that -wat has some phonological or discourse function, though none is obvious in the material available.

13. dumgiga : sleep.

The verb yu-ng covers 'to lie, to camp, to sleep'. If the speaker wishes to restrict the possibilities to 'to sleep' then dumgiga 'sleep' will modify yu-ng.

32. ngirri ga-ba-wa-wa-m-al dumgiga amala  
dog NP-3plS-R-bark-Aux-NP sleep Neg  
gat-yu-yn bat-gut-j-ang  
IRR1sgS-lie-NP 1sgSNP-get up-Aux-A  
bat-but-bum-bu-m waynlak  
1sgSNP-3plO-R-hit-A soon  
The dogs are barking. I cannot sleep. I will get up and hit them soon.

14. Slowly.

This is translated in the few examples available by an-wak 'little'.



#### 4. CLAUSE TYPES

Formally Warray has both verbal and verbless clauses. These two clauses have the following structures.

Verbal Clause : S -> (X\*) VC (X\*)

Verbless Clause : S -> NP NP

Verbal clauses are the unmarked clause type. Verbless clauses are only found expressing ascriptive, equational, existential and possessive propositions, and then only in the present tense (5.). These propositions are all alternatively expressible by verbal clauses, using positional verbs (5.) or the copulas (5.).

Even though verbless clauses are clearly the marked clause type, it would not be desirable to view them as being derived from an underlying verbal clause. Quite apart from the fact that the lexical-functional framework of this grammar does not permit such an approach there are two substantive reasons for rejecting such a proposal. Firstly it is unscientific, in the sense that there does not appear to be any conceivable method of disproving it. Secondly it is totally counter-intuitive. The verb is the only obligatory, and therefore central, constituent of the verbal clause. As such it is implausible to derive another clause type from it by deleting the central constituent. Warray does have nominalised clauses which are derived from verbal clauses (5.). However the verb, though it is nominalised, is not omissible from such clauses.

##### 4.1 Verbal Clauses and Transitivity.

In Warray, as in many prefixing languages, the definition of transitivity is a matter of some complexity. A consideration of sub-categorisation, valency and cross-referencing patterns is required. Verbs are taken to have sub-categorisations following LFG patterns. In pre-theoretical case role terms the following types of sub-categorisations are found.

1. bar?-m-arl to become daylight : 0
2. nyarl-m-arl to feel tired : experiencer
3. lili-m-arl to run : agent
4. ji-yi to say : agent, clause
5. bu-m to hit : agent, patient
6. wo-y to give : agent, patient, goal

Valencies are assigned to verbs in terms of the number of entities in their sub-categorisation frames. Thus 1 has a null valency. 2, 3 and 4 are mono-

valent, 5 is bivalent and 6 is trivalent. Transitivity values are assigned in terms of the number of entities in the sub-categorisation frame which are cross-referenced in the VC. Verbs with two cross-referenced entities are transitive, other verbs are intransitive (i.e. null and mono-valent verbs are intransitive, bi- and tri-valent verbs are transitive).

In Warray cross-referencing proceeds on a nominative-accusative basis, allowing for some irregularities and a few portmanteau forms in the combination of Subject and Object prefixes (4.4). The set of entities cross-referenced by the Subject prefixes corresponds to that traditionally associated with the notion of Subject (the only argument in an intransitive verb and the Actor argument in a transitive verb; Dixon's S and A [1980 : 286]). The Object prefixes cross-reference a set of entities corresponding to the traditional notion of Direct Object (Dixon's O [ibid]). Warray has two intransitive verbs which are Objectively instead of Subjectively inflecting (Merlan 1985 : 324). The two verbs are *wul?wul\_mi* to ache, and *ngarndi-dep-m-arl* to be thirsty. *wul?wul\_mi* is exclusively Objectively inflecting.

1.     *an-ngube ban-ga-wul?wul-mayn*  
P-foot 1sgO-NP-ache-Aux NP  
My foot is aching.

*ngarndi-dep-m-arl* is normally Objectively inflecting.

2.     *ban-ngarndi-dep-m-iyn wik-u bat-bi-ng*  
1sgO-throat-thirsty-Aux-PP water-DAT 1sgSNP-drink-A  
I am thirsty for water. I will have a drink.

However, according to my consultants it may be Subjectively inflecting to describe a more intensely experienced thirst.

3.     *bat-jum-ju-m at-ngarndi-dep-m-iyn*  
1sgSNP-PR-die-A 1sgS-throat-thirsty-Aux-PP  
I am dying (for a drink). I am so thirsty.

The verb *dokorri* to feel cold may also be an Objectively inflecting intransitive. However this is difficult to be certain of this as it always occurs with the adjective *a-larl* cold.

4.     *a-larl ban-dokorri*  
Cl-cold 1sgO-feel cold  
I feel cold.



4 could be analysed as involving a transitive verb with a Subject source a-larl (i.e. coldness makes me cold). Alternatively it could be an Objectively inflecting intransitive verb accompanied by an adjective which serves to emphasise the notion of coldness. The following example would suggest that the second alternative is correct.

5.     gulube-yang a-larl ban-dokorri  
cold-ABL Cl-cold 1sgO-feel cold  
I am feeling cold from fever  
Fever is making me feel cold.

The class of Objectively inflecting intransitives in Warray is clearly the marked subclass of intransitive verbs. It conforms to Merlan's (1985 : 347 - 349) generalisation that such Objectively marked sub-classes are concerned with bodily processes and functions, and require an animate Subject which has a neutral to patientive relation with the verb.

There is little profit in attempting to posit a class of ditransitive verbs in Warray. The VC has only two cross-referencing positions. It is possible in Warray to cross-reference a wide range of Indirect Objects. However these Indirect Objects displace the Direct Objects as the cross-referenced Object entity (5.).

Further while Warray has a number of trivalent verbs, such as to give, no consistent data could be obtained on the possibility of alternation in which role is cross-referenced by the Object prefixes. In most situations the two non-Subject roles of a trivalent verbs are filled by an inanimate patient/theme entity and a human goal/recipient. The human goal/recipient receives the Object cross-referencing. Attempts to determine the effect of a human patient/theme did not prove fruitful. The most common trivalent verb to give, normally cross-references the goal. In constructions with a human patient/theme my two consultants cross-referenced different roles. DW continued to cross-reference the goal, whereas EOB cross-referenced the patient/theme.

6.     warri-ba girranglul ba-wo-y al-dumarru an-jerriyn  
child-PL two 3plS-give-PP F-old woman Cl-one  
bun-ga-ngayk-m-arl  
3plO-NP-look after-Aux-NP  
They gave the one old woman the two children to look after. [DW]

7.     bin-wo-y-?lul warri-ba-?lul-ngan al-dumarru  
3plO-give-PP-pair child-PL-pair-PRM F-old woman  
He gave the pair of children to the old woman. [EOB]

On the other hand in one example when the trivalent verb *nawa-m* to take something off somebody had a human patient/theme DW cross-referenced that patient/theme.

8.     *bun-nawa-m warri-ba welfare-yi al-walin-yang*  
3plO-take off-PP child-PL welfare-ERG F-mother-ABL  
Welfare took the children off the mother.

Equivalently with the trivalent verb *jalak-m-arl* to show, EOB cross-referenced the goal, even when there was a human patient/theme.

9.     *ban-jalak-m-a gaji warri-ba-?lul bat-na-n-u*  
1sgO-show-Aux-IMP that child-PL-pair 1sgSNP-see-UNM-DAT  
Show me that pair of children. I want to see them.

(*bat-na-n-u* is incorrect, the form should be *bat-bin-na-n-u* when there is a plural human Object)

The variety of cross-referencing patterns shown in 6 - 9 argue that elicitation does not reliably establish the effect of a human patient/theme on the cross-referencing of trivalent verbs. In the absence of such reliable information, which could presumably only be obtained from text, there is no criterion for establishing a class of ditransitive verbs.

#### 4.0.1 Indirect Objects.

In addition to Direct Objects a wide range of Indirect Objects (non-sub-categorised entities) may be cross-referenced by the Object prefixes. When the Object prefixes cross-reference an Indirect Object, the prefix complex will normally be followed by the Indirect Object prefix *nat-*, which overtly indicates that the Object is an Indirect Object. Indirect Objects are found with both transitive and intransitive verbs. With transitive verbs the Indirect Object displaces the Direct Object from cross-referencing, but NPs referring to the displaced Direct Object remain in Absolutive case. NPs cross-referenced as Indirect Objects also take Absolutive case. This argues that Indirect Objects make increase the valency of a verb by one, and that they make intransitive verbs transitive.

Indirect Objects, like Direct Objects, are entities which are affected by the situation described by the verb or entities towards which the situation is directed. As such Indirect Objects most frequently correspond to the set of roles taking Dative case marking, goals, benefactives, purposives, possessors and complements of emotion verbs. (3.7.7).

1.     *mimi at-nat-ji-yi*

uncle 1sgS-IO-say-PP

I said to uncle/I told uncle. [goal]

2. wik ban-ba-nat-but-may

water 1sgO-2plS-IO-get water-Aux IMP

You mob get me some water! [benefactive]

3. bun-nat-wirt-m-a ngirri

3plO-IO-whistle-Aux-IMP dog

Whistle the dogs up! [purposive]

4. ngirri ban-ba-nat-bu-m

dog 1sgO-3plS-IO-kill-PP

They killed my dog. [possessor]

5. al-wun-wak-u multji ba-nat-yajiyn

F-female-little-OBL fear 3plS-IO-be PP

They scared the little girl.

lit. They were fear to the little girl. [complement of emotion]

3 shows that while Indirect Objects are normally human, they can at least be also domestic dogs (the highest of the "higher" animates). In addition to these dative roles Indirect Objects are also found with ethical datives.

6. motika bun-nat-gulu-j-ang

car 3plO-IO-stand-Aux-A

The car stopped on them.

7. at-but-mi wik gaging ban-ba-nat-wuli-yn

1sgS-get water-Aux PP water yesterday 1sgO-3plS-IO-finish-PP

I got water yesterday. They have finished it up on me.

However Indirect Objects are not restricted to Datives, ethical or otherwise, they are also found with allatives, locatives and ablatives (it is worth noting that the Dative in its function as the Oblique suffix can replace the locational case markers with pronouns 3.2.3).

8. amala letbal gan-ba-nat-jim-in

Neg close IRR-indefS-IO-come-P

Nobody could approach her.

9. an-bik nat-lagi-yn

P-string IO-drop-PP

She dropped the string to him.

10. jatbula ba-nat-mok-mi nguk

old man 3plS-IO-steal-Aux PP tobacco

They stole the tobacco from the old man.

While the nat- prefix is usually found when an Indirect Object is cross-referenced it is not obligatory. If the Indirect Object closely approaches a proto-typical Direct Object (i.e. it is highly affected by the situation, or is the goal of the situation) then there may be no overt indication that the Object is an Indirect Object. This is most frequent when there is a substantive Object prefix.

11. amala gat-yu-yn yumbal-lik gunyi gan-ban-wuli

Neg IRR1sgS-lie-NP tree-LOC flying fox IRR-1sgO-urinate

I will not sleep under that tree. A flying fox might urinate on me.

12. arriyn-ji-yi marriwak-u-yang gaji gawoy

1sgS->2sgO-say-PP before-OBL-ABL that again

garriyn-ji-wu-n gakuy garriyn-ya-m-i

IRR1sgS->2sgO-say-DAT-PRM after IRR1sgS->2sgO-tell off-Aux-NP

I have already told you that. If I have to tell you again then I will tell you off.

The non-occurrence of nat- is not restricted to intransitives, nor is it restricted to physically affected entities.

13. warri-ba ban-ba-wuli-wuli-yn nguk

child-PL 1sgO-3plS-R-finish-PP tobacco

The children have really finished up the tobacco on me.

A comparison of 12 and 13 with 1 and 7 respectively shows that the use of the nat- prefix is a matter of the speaker's perspective and not controlled by factors such as the role of the entity. The non-occurrence of nat- with 3sg Indirect Objects, which are cross-referenced by a 0- prefix (4.4) is somewhat rarer, but it is still possible.

14. wayn gan-ji-wu-n ga-bul?-m-arl

like that IRR-say-DAT-PRM NP-angry-Aux-NP

a) If you say things like that to him, he will become angry.

b) If you say things like that, he will become angry.

15. warri-wak-u bulbul lagi-yn gik-m-iyn al-gulbe gaji-n  
 child-little-OBL sick be-PP vomit-Aux-PP F-woman that-PRM  
 a) The little kid was sick. He vomited on the woman.  
 b) The little kid was sick. The woman vomited.

In cases such as 14 and 15 it is only from context that it can be determined whether the transitive a) interpretations with an Indirect Object, or the intransitive b) interpretations are intended. Examples such as 11 - 15 do not affect the distinction between transitive and intransitive verbs made in 5., despite the fact that the verbs may have transitive interpretations without any overt transitivising morphology. The definition of transitivity given in 5. was "the number of entities in the sub-categorisation frame [of the verb] which are cross-referenced in the VC". The Object cross-referenced entities in 11 - 15 are not in the sub-categorisation frames of the verbs.

#### 4.1 Intransitivisation.

There are a number of methods of intransitivising verbs in Warray. In terms of Hopper & Thompson's concept of transitivity as a continuum (1984 : ) these methods are more accurately described as detransitivisation, than intransitivisation. They signal various reductions from the usual full transitivity of a verb; antipassive, middle, passive, reciprocal and reflexive. They do not derive the intransitive counterpart of that verb. The usual method for forming transitive/intransitive verb pairs is by using different auxiliaries (4.1), not by intransitivising the transitive verb.

##### A. Reflexive

The reflexive suffix -yi-yn is the unmarked detransitiviser in Warray. It also marks middle and passive meanings (c.f. 9 & 14), but is most commonly found with a reflexive meaning.

1. na-na gan-dayn?-mi-yi  
 R-look IRR-cut-Aux-refl  
 Look out! You might cut yourself.

2. nu-yi-yn wek-yi an-gurrung  
 burn-refl-PP fire-INS P-arm  
 He burnt his arm in the fire. [lit. He burnt himself arm by the fire.]

The necessity for a distinction between intransitivisation and detransitivisation is shown by the fact that reflexives of a transitive verb contrast in meaning with the intransitive counterpart of that verb.

3. in-ga-yak-wu-n ga-warl-mi-yi-n  
1/2plO-NP-lie-Aux-NP NP-hide-Aux-refl-NP  
He is lying to us. He is hiding himself (from us).  
[warl-m-arl to hide tr]

4. ga-warlmi-j-i  
NP-hide-Aux-NP  
He is hiding. [warlmi-j-ang to hide intr]

5. al-wun-wak-u gutjgutj-mi-yi-yn wik-yi  
F-female-little-OBL wet-fact-refl-PP water-INS  
The little girl wet herself with water.

6. al-wun-wak-u gutjgutj-ji-yn  
F-female-little-OBL wet-inch-PP  
The little girl got wet.

#### B. Reciprocal.

The reciprocal -ji-yn is used to describe situations where the reciprocal events are not viewed as occurring in a distinguishable sequence. If the events are viewed as occurring in a distinguishable sequence then the particle anjalmi in turn will be used (5.).

7. ba-bu-ji-yn-lul  
3plS-hit-recip-PP-pair  
The pair of them had a fight.

8. an-nyi ba-wu-ji-yn-lul  
P-name 3plS-give-recip-PP-pair  
They swapped names.  
[lit. The pair of them gave each other their name.]

#### C. Middle

Middle meanings are coded with the reflexive -yi-yn.

9. amala an-jili gan-jili-del?-bu-yi

Neg P-mouth IRR-mouth-open-Aux-refl

The door will not open.

#### D. Passive

The coding of passive depends on the position in the animacy hierarchy of the patient/theme Object. If the patient/theme Object is human then the passive meaning will be coded by the appearance of a specific Indefinite Subject "someone" (identical to the 3plS form 4.4)

10. bun-ba-bun-m-iyn giganawu ga-ba-yu-yu

3plO-indefS-bury-Aux-PP over there NP-3plS-PR-lie

They are lying buried over there.

lit. They/Someone buried them. They are lying over there.

11. ba-bu-m-wa a-warru ga-yiyn-yiyn

indefS-hit-PP-could be Cl-bad NP-PR-be NP

He could have been hit. He is no good (in the head).

lit. Someone could have hit him. He is no good (in the head).

If the Object is lower on the animacy hierarchy then this construction may be used.

12. muya ba-dayn?-dayn-mayim an-wik

tucker indefS-R-cut-Aux PI P-skin

The fruit is all peeled.

13. yul gaji ba-barn-ga-ngi

ground that indefS-dig-Aux-PP

That ground is all dug up.

A "false" reflexive construction may also be used, though this is uncommon.

14. gujili?-mi-yi-yn wik

fill-fact-refl-PP water

It is filled with water.

If the patient/theme involves a part/whole relationship then there is no overt marking of passive meaning.

15. an-nebe ban-dayn?-mi

P-hand 1sgO-cut-Aux PP

- a) My hand is cut.
- b) He cut my hand.

As there is no requirement for overt nominal expression of the Subject in Warray 15 may have either of the interpretations indicated. The a) interpretation cannot be understood to involve a specific indefinite Subject someone/they, as this would have to be overtly marked by the ba- 3pl/indefS prefix as in 10 - 13. The only other case where "passive" meanings are not overtly coded is shown in the following example.

16. wang no-y  
meat burn-PP  
Is the meat cooked?

However in this case there is obviously only one suitable Subject, wek fire (traditionally at least). Given this and the fact that Subjects do not require overt nominal expression it is doubtful that 16 can be regarded as passive in the same way that the a) interpretation of 15, which has no single implied specific Subject is. The "passive" meaning of 16 is clearly a kind of secondary interpretation of the clause.

#### E. Antipassive

There is no formal marking for antipassive meaning in Warray.

17. wek ga-nun-nu-n  
fire NP-PR-burn-NP  
The fire is burning.

18. wek wilek jabul-m-arl-ayn gaging ngikba  
fire charcoal smoke-Aux-UNM-PI yesterday night  
The fire and charcoal were smoking last night.

19. amala gan-birl-bi-rl  
Neg IRR-H-drink-P  
He never used to drink.

These examples are all parallel to 16. There is no requirement for overt nominal expression of Objects in Warray, and all of these examples have specific implied Objects (wood, smoke and booze respectively). The "antipassive" meanings of 17 - 19 are like the "passive" meaning of 16, secondary interpretations of the clauses.



## 4.2 The Copulas

Warray has two copulas, *yang* to be and *ga-ngi* to have. These two copulas are formally identical with the verbs *yang* to go and *ga-ngi* to take, and these verbs are the historical sources of the copulas. However there are reasons for synchronically positing the copulas as separate verbs. One major reason is the difference in meaning between each of the copulas and its source verb. While there is a connection between to go and to be, and to take and to have it does not appear possible to synchronically view the two meanings in each case as being different facets of some underlying common meaning.

The other major reason is that the copulas show three formal differences in verbal marking from other verb stems. Firstly both the copulas are stative in meaning, yet they take the NP prefixes when they have present time reference, as active verbs do. All other stative verbs take the UNM prefixes (c.f 4.8.1). Secondly in situations where perfective and imperfective verb forms are formally differentiated, the copulas nearly always take verb forms which are formally imperfective, where other verbs take formally perfective forms.

1.     *wang at-ga-n-iyng ngirri ja-yn ngek-u-wu*  
meat 1sgS-have-UNM-PI dog eat-PP 1sg-OBL-DAT  
I had some meat. The dog ate it. It was mine.

2.     *multji-wirru at-yungoy-iyng gaging ban-multji-wo-y*  
fear-properly 1sgS-be-PI yesterday 1sgO-fear-fact-PP  
nal gaji  
man that  
I was really frightened yesterday. That man scared me.

The past tense forms *at-ga-n-iyng* I had and *at-yungoy-iyng* I was are both imperfective. Perfective verb forms would be expected as the situations are perfective in aspect. The other verbs in 1 and 2 are formally perfective. In the present tense the copulas both take the reduplicated forms which mark present progressive/habitual (4.7). There is one example of *ga-ngi* to have taking a perfective verb form.

3.     *nguyn an-ga-ngi girranglul an-jerriyn wuli-yi-yn*  
2sg 2sgS-have-PP two Cl-one finish-refl-PP  
You, you had two (daughters), but one passed away.

However elsewhere the copulas take forms which are formally the imperfective forms of active verbs. This is undoubtedly their historical origin.

One of the major subcategories of the imperfective is the habitual. The habitual forms of *yang to go*, and *ga-ngi to take* closely approach stativity. The genesis of the copulas has presumably been the reanalysis of these active habitual forms as statives. They still maintain the formal marking of their origin, but synchronically belong to the quite different stative verb class. This lack of congruence between form and function which is found only with these two copulas provides clear formal evidence that *yang to be* and *ga-ngi to have* are verbs separate from *yang to go*, and *ga-ngi to take*.

The third difference in verbal marking between the copulas and other verbs applies only to *ga-ngi to have*. *ga-ngi to take* always takes the Object prefixes in the appropriate circumstances (4.4), whereas *ga-ngi to have* frequently fails to do so (i.e. it shows evidence of detransitivisation).

4.     *ngek al-wulgan yikirring-u girrangajerriyn*     1sg F-sibling 1plexc-  
 DAT three  
       *bali-ga-ngi-lul*  
       1plSNP-have-A-pair  
       (My) sister and I, we have three (other sisters).

It may however appear with Object prefixing.

5.     *girrangajerriyn amala girranglul-nanak bat-but-ga-ga-ngi*  
       three Neg two-only 1sgSNP-3plO-PR-have-A  
       I do not (have) three (children). I only have two.

#### 4.3 Existential, Equational, Ascriptive and Possessive Propositions.

This set of propositions express the following meanings.

1.     Existential - Propositions which assert the existence of an entity
2.     Equational - Propositions which equate the referent of one NP with the referent of another NP.
3.     Ascriptive - Propositions which ascribe a property to an entity.
4.     Possessive - Propositions which indicate that there is a relationship of possession or kinship between two entities. (The definitions of 2 -4 follow from Lyons 1976 : 471 - 473)

They are formally distinguished from all other propositions by the fact that they may be expressed by the marked verbless clause type in the present tense (5.). They are all alternatively expressible by three varieties of the unmarked verbal clause type, two major and one minor. The first of the major varieties is a standard verbal clause with a positional verb. This verbal clause

variety is essentially existential in meaning, and can express existential, equational and ascriptive propositions (i.e. equational and ascriptive propositions can be asserted to exist). The other major verbal clause variety uses a copula verb. Equational and ascriptive propositions take the yang to be copula. Possessive propositions take the ga-ngi to have copula. The minor verbal clause variety involves the verb gutj-m-ar1 to be/exist lots of X, and is used to express existential propositions. gutj\_m-ar1 is similar to the yang to be copula in meaning, but formally inflects on the normal pattern, and not on the special copular pattern (5.).

#### A. Existentials.

Existentials, even in the present tense, are most commonly expressed by verbal clauses consisting of an NP describing the entity in question, an NP describing a location and the appropriate positional verb. In most cases one of the three stance verbs, yu-ng to lie, gulu-j-ang to stand or ni to sit is used.

1. anaba darn gulu-j-i-jiyn

there tree sp stand-Aux-UNM-PI

A darn tree used to stand there. / There used to be a darn tree there.

2. bulak ga-ni-ni jitbam-lik

wallaby NP-PR-sit grass-LOC

A wallaby is sitting in the grass. / There is a wallaby in the grass.

3. girri a-gubam ga-yu-yu an-gimitj-lik

rock Cl-lots NP-PR-lie P-hill-LOC

Lots of rocks are lying on the hill. / There are lots of rocks on the hill.

4. libe a-gubam muya ga-wuyn-wu-yn

fig Cl-lots fruit NP-PR-hang-NP

Lots of fruit is hanging on the figtree. / There is lots of fruit on the figtree.

4 shows that if another positional verb is appropriate it will be used.

5. an-lung.ga a-gubam ngurlak

P-billabong Cl-lots this place here

There are lots of billabongs around here.

6. ngila ngiba an-lung.ga a-murdek-jang.gi an-jerriyn

that way that way P-billabong Cl-big-very Cl-one

ga-yu-yu

NP-PR-lie

That way there is one very big billabong.

A comparison of 5 and 6 suggests that indefiniteness may be an important factor affecting the coding of existential propositions, with the more definite existentials being coded with verbal clauses and the less definite being coded with verbless clauses. While this is the most common way of expressing less definite propositions such as 5, even they may alternatively be expressed by verbal clauses, using the verb *gutj-m-arl* to be lots of X.

7.     *bamngul gutj-m-iy*n

cloud be lots-Aux-PP

There are lots of clouds.

8.     *yumbal an-wak-wak-u gutj-m-iy*n

tree Cl-little-little-OBL be lots-Aux-PP

There are lots of little trees.

B. Equationals and Ascriptives.

These two subclasses behave in fairly similar ways, but they are distinct in that equationals require two NPs, whereas ascriptives do not. These two classes of propositions may be expressed by the essentially existential positional verb clauses (i.e. the equational or ascriptive relationship can be asserted to exist).

9.     *an-jili wurtwurtmi gulu-j-i-jiyn gaging amala*   P-mouth   open   stand-  
Aux-UNM-PI yesterday Neg

*gan-ba-mim-bu-n*

IRR-3plS-close-Aux-P

The gate stood/was open all day yesterday. They did not shut it.  
[ascriptive]

10.    *ngek a-muku bat-ni-ni-wiyn*

1sg Cl-good 1sgSNP-PR-sit-A

I am/sit well. [ascriptive]

11.    *jarniyn li-mi-lik amungal lulujun*

kangaroo jump-Aux PP-LOC Adelaide River place name

*an-nyi ga-gulu-j-i*

P-name NP-stand-Aux-NP

Amungal, that is where the kangaroo jumped (over the river). Lulujun is/stands its name. [equational]

In 9 and 10 the use of the stance verb is literal. In 11 it is figurative. The lexeme name is classed as a body part in Warray (3.2.1). In this case the name belongs to a hill, and hills are described with gulu-j-ang to stand. Therefore the name figuratively also stands.

However equationals and ascriptives differ significantly from the existentials in that the verb most commonly found with them is the copula yang to be. yang to be is the unmarked choice for the verb in verbal clauses expressing equationals and ascriptives. It is used when the stance of the entity is unknown, and in most cases when it is known.

12.   nal at-yungoy-iyn wang jarniyn bulak at-le-n-iyn  
man 1sgS-be-PI animal kangaroo wallaby 1sgS-spear-UNM-PI  
(When) I was a (young) man I used to spear (lots of) kangaroos and wallabies.

13.   an-nyi nguyn nginyang an-ga-yiyn-yiyn  
P-name 2sg what 2sgS-NP-PR-be NP  
What is your name?

While present tense equationals can be expressed by verbal clauses as in 13, they are most commonly expressed by verbless clauses.

14.   ebing a-wulgan nguny-u-wu  
who M-sibling 2sg-OBL-DAT  
Which one is your brother?

15.   ngek-ngan an-nyi ngek-u-wu-wirru lidawi gaji  
1sg-PRM P-name 1sg-OBL-DAT-proper lidawi that  
Me, my own proper name, that is Lidawi.

The only class of present tense ascriptives that are normally expressed by verbless clauses are predicate genitives.

16.   wang bigirring-u  
meat 3pl-DAT  
The meat is theirs.

An ascriptive proposition may consist solely of an adjective and the copula yang to be.

17. a-biyn.gu ga-yiyn-yiyn  
Cl-left-handed NP-PR-be NP  
He/she is left-handed.

#### C. Possessives.

Possessives may be expressed by a verbless clause or a clause involving the copula ga-ngi to have.

18. nal ana an-miyn a-murdek-jang.gi  
man there P-belly Cl-big-very  
The man there has a very big belly.

19. an-ngar an-buruyu ga-gan-ga-n ngirri gaji an-durk-u  
P-fur Cl-long NP-PR-have-NP dog that Cl-white-OBL  
That white dog has long fur.

#### 4.4 Body Part Constructions.

In Warray there are two ways in which body part clauses differ from other types of clauses. The first area of difference is that "passive" transitive clauses involving body parts do not involve any overt marking of the passive status of the clause, whereas all other types of passive clauses require overt marking for passive meanings (5.). The other difference is the well known "possessor ascension" pattern of cross-referencing, where the verbal prefixes cross-reference the possessing individual rather than the part itself. The possessor ascension marking pattern is the usual pattern in Warray whenever the part/individual is the intransitive Subject (hereafter S) or transitive Direct Object (hereafter DO) of a clause. In such clauses the part will also frequently be incorporated (c.f. 18.), and if the body part occurs as a free noun, that noun will generally be in absolutive case.

The "possessor ascension" construction cannot be viewed as a reflection of the real world physical contiguity of body parts and their possessors (Fox 1981 : 323), as it is possible to so code "parts" which are not in any sense physically contiguous with their possessors.

1. an-nyi amala gan-ban-mitj-na-n  
P-name Neg IRR-1sgO-know-Aux-P  
He does not know my name.

Nor is it possible to view it as a reflection solely of the fact that the individual is affected by things which affect the part, even though this is clearly an important parametre, for two reasons. Firstly there is an alternative construction where the individual is coded as an Indirect Object (IO), which also indicates that the individual is affected.

2.     ban-nat-dayn?-mi an-garra an-mu an-geng-u gut-m-iyn  
1sgO-IO-cut-Aux PP P-leg P-bone Cl-new-OBL put-Aux-PP  
(The doctor) cut my leg open and put a new bone in.

The verb ban-nat-dayn?-mi indicates that the situation affects the individual. However the individual is coded as an IO not as a DO. Secondly cross-referencing of the individual and incorporation are possible with controlling S's.

3.     a-warru an-jen ga-jen-bil?-m-arl bigirring-u  
Cl-bad P-tongue NP-tongue-poke-Aux-NP 3pl-DAT  
(He is) bad. He is poking his tongue out at them.

As in all other languages with "possessor ascension" constructions cross-referencing of the whole/incorporation is not possible if the whole is a transitive Subject. Thus "I carried the child on my shoulder" can only be expressed by 4b, not by 4a.

- 4a.     \*at-murnak-wuk-mi an-wak  
1sgS-shoulder-carry-Aux PP Cl-little

- 4b     at-wuk-mi an-wak an-murnak-lik  
1sgS-carry-Aux PP Cl-little P-shoulder-LOC

4a could only have the rather bizarre meaning "I carried the child's shoulder". In clauses with IO's, involving basically intransitive verbs, incorporated forms are taken to refer to the S (I do not have any examples of incorporation to transitive verbs with an IO).

5.     gakuy-u an-ga-nat-gurrung-way?-way-gayi-n  
after-DAT 2sgS-NP-IO-arm-R-wave-Aux-NP  
Later you will wave to him.

The most plausible explanation for the "possessor ascension" construction and the Indirect Object construction would appear to be Hopper and Thompson's (1984 : 724 - 726) idea that they are a reflection of the fact that parts are

not usually salient in discourse terms, whereas their individual possessors are. In Warray if a part, for whatever reason, is salient in discourse terms then it may be coded as fully independent.

6. an-nebe at-dayn?-mi ngek-u-wu ngek amala amba-yang  
P-hand 1sgS-cut-Aux PP 1sg-OBL-DAT 1sg Neg where-ABL  
ngek-nanak an-nebe at-dayn?-mi  
1sg-only P-hand 1sgS-cut-Aux PP  
I cut my hand, me, nobody else, only me, I cut (my) hand.

In this case the speaker wishes to emphasise her own sole and individual responsibility for the action affecting her hand. It is therefore desirable to code the situation with a fully transitive clause treating the two as separate entities.

7. bulbul ban-lagi-yn  
sick 1sgO-toss-PP  
an-dum ga-gurditj-gurditj-m-arl ngek-u-wu an-doy  
P-eye NP-R-go around-Aux-NP 1sg-OBL-DAT P-heart  
mutjla an-dum an-doy a-warru  
too P-eye P-heart Cl-bad  
I feel sick. My eyes are going round, my heart too. My eyes and heart are bad.

In this case the speaker, after making a general statement that she is sick, focusses on the particular parts which are feeling bad. Discourse saliency of the part is very much a matter of perspective, and not of absolute real world situations. This is illustrated by examples such as the following, where the coding of the part changes within the same sentence, without there appearing to be particularly strong reasons for it.

8. an-nyi ngek-u-wu ban-ganimup-m-iyn amala  
P-name 1sg-OBL-DAT 1sgO-forget-Aux-PP Neg  
gan-mitj-na-n  
IRR-know-Aux-P  
He has forgotten my name. He does not know it.

In 8 the first VC refers to the individual, the second refers to the part. The coding of the individual as an IO is also very much a matter of perspective.

9. ngek an-letma ban-nat-wuli-wul-iyn a-gudangyi  
1sg P-tooth 1sgO-IO-R-finish-PP M-doctor



yirr?-mayim wul-iyn ngek-u-wu

pull out-Aux PI finish-PP 1sg-OBL-DAT

My tooth was finished. The doctor pulled it out. My (tooth) was finished.

10. an-letma ban-nat-yirr?-mi a-gudangyi

P-tooth 1sgO-IO-pull out-Aux PP M-doctor

The dentist pulled out my tooth.

In 9 the individual is coded as an IO by the first VC, but not by the following two. In 9 and 10 the same situation (the dentist pulling out teeth) is described but in 10 the individual is coded as an IO of the verb yirr?-mi to pull out, where as in 9 it is not. 9 is also of interest as it exemplifies passive body part clauses both where the individual is as an IO (the first VC ban-nat-wuli-wul-iyn), and where the individual is not cross-referenced at all (the third VC wul-iyn).

Thus there are in Warray three ways of cross-referencing situations involving S and DO body/individuals, including body parts in Subjectless clauses. The usual method is have the prefixes refer to the whole as S or DO, a reflection of the normal low discourse saliency of body parts. If however there is a variation from this usual low discourse saliency then two alternatives are possible. The individual may be cross-referenced as an IO, indicating that while the situation is primarily directed towards the part, the individual is affected. Alternatively the part may be treated as an independent entity without reference to the whole. It appears likely that the difference between the two is that the IO construction involves a lesser degree of discourse saliency for the part than the independent construction.

In Warray it is not only cross-referencing patterns that may be varied in body part clauses. The case-marking patterns of free body part nominals are also variable. Free body part nouns are normally in absolutive case but it is possible, in some situations, to case mark them. The factor controlling this case marking is the interpretation of the case role of the body part. If the body part can only be interpreted as a locative, there are no examples of it taking case marking.

11. an-bam(\*-lik) at-bu-m nal

P-head(\*-LOC) 1sgS-hit-PP man

I hit the man on the head.

This would appear to be a reflection of the principle set out by McGregor (1985 : 210 - 211) "the body part specifies the EXTENT or LOCUS of the participant's involvement in the action. That is, it specifies the part of the individual which is most directly and intimately involved in the action. And

secondly, it expresses the fact that it is usually whole individuals rather than their body parts that are involved in the 'direction' of actions or processes". Essentially the unmarked interpretation of a body part is as a locational modifier to the individual. If however the part is also interpretable as an ablative then it will take the appropriate case marking.

12. ngirri ban-nawa-m wang an-nebe-yang  
dog 1sgO-take off-PP meat P-hand-ABL  
The dog took the meat out of my hand.

If the part is also interpretable as an instrumental then it may appear with instrumental case marking, and such clauses containing body part instruments are not formally distinct from clauses containing any other type of instrumental (for comparison c.f. 5 where arm is potentially interpretable as an instrumental).

13. an-ngube-yi ga-bun-mi-yi-n yok-lik  
P-foot-INS NP-bury-Aux-refl-NP sand-LOC  
He is drawing with his feet in the sand

14. ga-dirri?-m-arl an-bart-yi  
NP-crawl-Aux-NP P-knee-INS  
He is crawling on his knees.

If a clause contains two body parts, one an instrumental and the other a locative then the instrumental must occur as an independent instrumental argument.

15. an-biyn.gu-yi at-gibat-derret-bu-yi-yn  
P-left hand-INS 1sgS-back-scratch-Aux-refl-PP  
I scratched my back with my left hand.  
[\*an-gibe-lik at-biyn.gu-derret-bu-yi-yn]

The coding of clauses with S or DO body/individuals in Warray is therefore a complex matter depending on the discourse saliency of the part and the interpretation of the role of the part.

## 5. NOUN INCORPORATION

Before proceeding with discussion of the particulars of NI in Warray it is necessary to give some general theoretical consideration to the nature of noun incorporation, and especially to consider the nature of the distinction between NI and denominal verb formation.

Sapir (1911 : 257) defines NI as "this process of compounding a noun stem with a verb that it is here proposed to call noun incorporation, no matter what the syntactic function of the noun logically is. This type of verb, "to song-write" that Dr Kroeber alone regards as illustrative of noun incorporation, is best considered a particular class of the more general type of noun-verb compound verb. As a matter of fact, it is often just as difficult, at least in some American languages, to draw the line between the objective and non-objective use of an incorporated noun as it is to determine the precise syntactic value of the qualifying member of a compound noun. Thus "I hit his face" may often be interpreted locatively as "I hit him in the face", while even so transparent an example as "I eat meat" may often be understood instrumentally as "I feed on or with meat".

Mithun (1984 : 848) has defined noun incorporation as "a particular type of compounding in which a Verb and Noun combine to form a new Verb. The Noun bears a specific relationship to its host Verb - as patient, location or instrument.". Mithun also notes "Interestingly, all languages which exhibit such morphological structures also have syntactic paraphrases. If we know that, in Koryak, one can say tiqoyanmatekin 'I-reindeer-slaughter' then we can correctly predict the existence of a sentence like Tinmekin qoyawge 'I-slaughter reindeer' (Mithun 1984 : 847 - 848).

It is not clear what status Mithun attributes to this statement. It may be a statement about a general tendency in the majority of cases. Alternatively it may be a qualification on the interpretation of NI in general (i.e. if a compound construction does not have a syntactic paraphrase then it is not to be treated as an example of NI). The following statements in Mithun (1986 : 33) suggest that the first alternative is intended "Speakers of an incorporating language may never hear or produce sentences about hand-washing where the noun for 'hand' appears outside of the verb 'wash', and may even find such sentences odd, because the situation calling for them would be odd. This does not mean that NI is arbitrary."

In effect Mithun defines "Noun Incorporation" as the compounding of a Noun with a Verb to form a new Verb subject to the condition that the N must bear a specific argument relationship to the V. Sapir would appear to be in implicit agreement with this condition. While he states that it may be difficult to determine the exact relationship between the N and the V, and so disagrees with Mithun to this extent, he does appear to be operating on the assumption that there will be an essentially argument-like relationship between the N and the V.

In connection with denominative verb formation Sapir (op cit : 254) states "Many American languages form denominative verbs from noun stems by means of various derivative affixes of verbal, generally transitive, meaning. Thus, from Paiute qani- "house" are formed qanintcu- "to build a house" and qanixyai- "to have a house", from Yana hauyauba- "deer fat" is formed hauyauba-iniguia- "to contain nothing but deer fat". In these derivative verbs the nouns "house" and "deer fat" can not be considered as incorporated, for the verbal elements -ntcu-, -xyai-, and -iniguia- are not verb stems but verb-forming affixes morphologically comparable to English -ize in verbs of the type materialize , pauperize ."

Mithun (1986 : 32) states "denominal verb formation is a different formal process. In NI, as commonly understood since Sapir 1911, a noun stem is compounded with a verb stem to yield a more specific, derived verb stem. The Greenlandic construction is based on a single noun stem with a derivational suffix. It is not entirely clear why one would refer to this as NI, since it is not obvious what such nouns are incorporated into. In incorporating languages, a verb minus its incorporated noun is still a well-formed verb; but in Greenlandic, a denominal verb minus its noun stem would be no word at all."

It would appear that Mithun and Sapir are in substantial agreement, that if the verbal morpheme in a morphologically analysable verb stem, involving a noun root, cannot stand alone as a well formed verb, then the whole stem should be regarded as a denominal verb stem as opposed to a compound verb stem involving noun incorporation. This criterion, a negative criterion for NI, is intuitively appealing.

However Warray, and other Gunwingguan languages, provide considerable problems in relation to the use of this "independent occurrence" negative criterion for NI. These problems arise in relation to what is called "lexical incorporation" (Mayali : Evans, Ngalakan : Merlan 1983 : 143 - 144). In Warray there are examples of verb stems which are morphologically analysable as consisting of N + V where both the N and the V can occur independently, but which one would wish to exclude from the scope of an analysis of NI by the positive definition of NI as being the compounding of N + V, with an argument-like relationship between the N and the V, that Mithun and Sapir are implicitly using. Secondly there are also examples of verb stems which are morphologically analysable as consisting of N + V, where the V is not attested independently, but which one would wish to analyse as being examples of NI because there is an argument-like relationship between the N and the V.

In Warray (and in other GN languages) the positive functional principle that the N and the V should bear an argument-like relationship, and the formal "independent occurrence" criterion produce different results. It thus becomes necessary to give priority to one of these principles over the other.

Warray productively forms verbs of the first type (that of an independent N + V with no argument-like relationship) through its use of certain auxiliaries as denominalisers (4.1).

Independent Denominaliser

bu-m to hit to make noun X  
nik-b-arl to put up causative/factitive  
wo-y to give factitive

By the positive criterion for NI requiring an argument relationship between the N and the V given by Mithun and Sapir it would be desirable to exclude compound verbs formed using these denominalisers from the scope of any analysis of NI. However by the negative criterion for NI implicit in Mithun and Sapir they should be treated as NI verb forms as all of these auxiliaries occur as perfectly acceptable independent verbs. The denominal compound verbs they form are therefore in a sense in no-man's land. I would argue that these forms should not be treated as examples of NI as they are clearly not congruent with what is generally taken to be NI (i.e. the positive criterion should be followed and the negative criterion should be ignored)

There are a number of verbs in Warray which exemplify the second type of problem for the independent occurrence criterion (cases where the V does not occur independently, but there is an argument-like relationship between the N and the V and both N and V make a significant contribution to the lexical meaning of the compound verb.).

1. dum\_bay?\_m-arl to open one's eyes (an-dum eye)
2. bam\_berrngberrng-m-arl to shake one's head (an-bam head)

bay?\_m-arl and berrngberrng-m-arl are not found independently of the compound forms given (to open is otherwise expressed by the verb del?-bu-m, to shake is otherwise doldol-m-arl). Therefore these verbs must be analysed as denominal verbalisers by the independent occurrence criterion. Yet these compound stems would rather appear to be parallel to NI forms and not to denominal forms functionally. In these stems both the noun and verb make significant contributions to the lexical meaning of the compound, and there would appear to be an argument-like relationship between the noun and the verb. It is true that compound forms such as 2, where the verb does not occur independently fall within the domain of iconic reduplication (4.7). This argues that they are fairly highly lexicalised compounds. Nevertheless I would argue that they should be treated as examples of NI, because they are congruent with the general understanding of NI.

Overall for Warray it would appear that use of the formal "independent occurrence" criterion produces unsatisfactory results both from the point of view of positively defining denominal verb stems and from the point of view of negatively defining NI constructions. Rather it would appear desirable to regard as denominal, any compound verb stems where the main lexical meaning of the compound stem is provided by the noun and the verb functions essentially as a verbaliser. In Warray as in the other Gunwingguan languages the relationships between the nouns and the auxiliaries in denominal compounding are variable and unpredictable, and the denominal compounding system is of only limited productivity as opposed to the fully productive NI. Compound stems where both the noun and the verb contribute to the lexical meaning of the compound and where there is an argument-like relationship between the noun and the verb should be treated as examples of NI.

NI in Warray is of general typological interest as it provides a clear counter-example to the generalisation made by Mithun (1984 : 875) "If a language incorporates N's of only one semantic case, they will be patients of transitive V's ..... If a language incorporates only two types of arguments, they will be patients of transitive and intransitive V's ..... Many languages additionally incorporate instruments and/or locations".

Contrary to Mithun's statement that the patients of transitive verbs are the prototypical incorporable forms, patient Objects such as "wallabies" in the clause "I used to hunt wallabies" are only attested as free nouns in Warray.

3. bulak at-buk-ga-n-iyn  
wallaby 1sgS-hunt-Aux-UNM-PI

Such patient Objects are not generally incorporable in Warray.

4. \*at-bulak-buk-ga-n-iyn  
1sgS-wallaby-hunt-Aux-UNM-PI

There is only one example of what appears to be patient Object incorporation from DW.

5. girrangajerriyn ba-warri-gut-mi-yi-yn  
three 3plS-child-bear-Aux-refl-PP  
They have three children.

There are however a number of problems with even this form. The verb warri-gut-mi-yi-yn is analysable as consisting of warri child and gut\_mi-yi-yn the reflexivised form of gut-m-ar1 to give birth, to bear. The use of the reflexivised form of the verb is abnormal for patient Object incorporation.

Normally the incorporation of the patient inherently forms an intransitive verb (Mithun 1984 : 849). Secondly while DW used this verb she did not use the lexeme *warri*, though she did use the plural form *warri-ba* children. EOB did use the lexeme *warri*, but she did not however use the verb *warri-gut-mi-yi-yn*. Therefore the verb form *warri-gut-mi-yi-yn* would appear to be a less than fully productive example of NI.

Mithun (1984 : 858) treats incorporation of body parts as an aspect of what she describes as NI Type 11 "NI of body parts allows affected persons to assume a primary case role, such as subject or direct object, rather than merely oblique possessor." NI in Warray (and indeed in the other incorporating languages of northern Australia) does not have this function, as it is quite possible to code the possessor as S or DO without incorporating the body part noun (5.).

In Warray body parts form by far the most frequently incorporated class of nouns. This conforms with the observable generalisation for incorporating languages in Northern Australia that the class of incorporable nouns always includes body parts (Mara Heath 1981 : 280-1, Nunggubuyu Heath 1984 : 472, Ngalakan Merlan 1983 : 144, Ngandi Heath 1978 : 118, Rembarrnga McKay 1975 : 299, Tiwi Osborne 1974 : 50, Warndarang Heath 1980 : 86). This is also observable for languages elsewhere in the world (Nahuatl Merlan 1976 : 188). In some languages only body parts are incorporable (Muskogean Haas 1941, Nganki Kurungkurr Reid 1982). These facts would argue that body part incorporation is a primary type of incorporation rather than a secondary type of incorporation as Mithun treats it.

Incorporation of body parts in Warray is not restricted to animates, being also found with inanimates.

6.    *mala-wuli-yi-yn yumbal*  
leaf-finish-refl-PP tree  
The tree has lost its leaves.

7.    *an-jili at-jili-del?-bu-m*  
P-mouth 1sgS-mouth-open-Aux-PP  
I opened the tin lid.

It may be noted that when an substantively class marked noun is incorporated the class marker is lost (*an-jili* mouth, lid). In Warray it is important to note that the class of incorporable body parts does not correspond to the *an-* marked non-detachable/regenerative nominal body part class (i.e. the class of nominally defined inalienables is not the same as the class of verbally defined inalienables). "Detachable" body parts, which belong to the 0- nominal class may be incorporated and take prefixes referring to the whole.

8. bat-du-dumila-jup-jup-m-iy  
1sgSNP-PR-tear-R-flow-Aux-A  
My tears are flowing

9. gijewek ban-ba-dayn?-mi  
beard 1sgO-3plS-cut-Aux PP  
They cut my beard

Conversely the noun an-mewel clothes, which does belong to the an- nominal inalienable class does not fall within the "verbal" inalienable body parts class. There are no examples of this noun being incorporated and the prefixes invariably refer to it, rather than to the possessor.

10. wek at-dirrim-bu-m ngikba-yang amala gat-na-n  
fire 1sgS-light-Aux-PP night-ABL Neg IRR1sgS-look-P  
wek-yi no-y ngek-u-wu an-mewel  
fire-ERG burn-PP 1sg-OBL-DAT P-clothes  
I lit a fire this morning, (but) I did not look out and the fire burnt my clothes.

It is possible to cross-reference the action as affecting the whole, but only by cross-referencing the whole as an IO, not as a DO.

11. an-mewel ban-nat-lala?-mi  
P-clothes 1sgO-IO-tear-Aux PP  
He tore my clothes.

Incorporation is possible whenever the individual is an S or DO.

12. at-nabat-gamu-ji-yn  
1sgS-hand-stiff-inch-PP  
My hand is stiff

13. an-nebe at-nabat-nyim yumbal-lik  
P-hand 1sgS-hand-enter log-LOC  
I put my hand in the log.

14. bun-lorr?-may  
feather-pluck-Aux IMP  
Pluck the feathers out!

15. ngirri wang ban-nabat-nawa-m an-nebe-yang



dog meat 1sgO-hand-take off-PP P-hand-ABL

The dog took the meat out of my hand.

There is one example of double body part incorporation.

16. bat-du-dum-bam-birri-m-iyn

1sgS-PR-eye-head-feel dizzy-Aux-A

I feel dizzy.

The possibilities for incorporation other than of body parts are much less extensive in Warray than in some other Gunwingguan languages such as Mayali (c.f. Evans this volume) or Rembarrnga (McKay 1975 : 287 -309). Apart from body parts, only locatives may incorporate. Incorporation of locatives is not widely attested, but both DW and EOB gave incorporated locative forms. Most of these forms take locative case marking as independent nouns.

17. an-mewel at-windi at-mirral-lagi-yn

P-clothes 1sgS-hang out 1sgS-sun-put-PP

I hung the clothes out in the sun.

18. yow at-windi-ny-iyn mirral-lik ga-mirral-nu-n

yes 1sgS-hang out-UNM-PI sun-LOC NP-sun-burn-NP

Yes I hung them (the clothes) out in the sun. They are drying in the sun.

19. at-wik-lagi-yn an-mewel wik-lik gaku

1sgS-water-toss-PP P-clothes water-LOC later

bat-wurlek-m-iyn

1sgSNP-wash-Aux-A

I tossed the clothes in the water. Later I will wash them

20. gijirriyn yul-lik yul-del?-bu-m gaji gut-m-iyn

bird sp ground-LOC ground-open-Aux-PP that lay-Aux-PP

an-gundu gakuy an-wak ngal?-jim

P-egg after Cl-little out-come

The gijirriyn bird burrowed into the ground and laid its eggs.

Afterwards the chicks came out.

21. gaji warri-ba-?lul bin-ba-wili-ngiw-a wili-lik

that child-PL-pair 3plO-2plS-house-put in-IMP house-LOC

You mob put those two children in the house!

22. at-dumgiga-gut-m-iyn an-wak

1sgS-sleep-put-Aux-PP Cl-little

I put the child to sleep.

There is also an example of the incorporation of a perlativ.

23. gimiyn-gurditj-m-a

point-go around-Aux-IMP

Go around via the point!

Given the variability of case marking in Warray (-ba the perlativ case marker can have a locative meaning 3.7.5) it would not appear that any particular significance should be at

The various incorporated forms all describe the direction/location of the verbal situation (though sleep is admittedly a somewhat metaphorical location). As body parts can also be viewed as indicating the location of the situation affecting or activity effected by the individual (McGregor 1985 : 210 - 211), it would appear most economical to group body parts and these other incorporated forms together as locatives. The possibilities for NI can then simply be stated as being the incorporation of these locationals. There are two types of locationals, outer locationals and body parts (inner locationals). Body parts primarily differ from other locationals in that they describe a location internal to a core participant individual, as opposed to locations external to such participants. They also differ from other locationals in that they could in some cases be alternatively interpreted as instrumentals or as ablatives (and may be so case-marked c.f. 38 - 40).

Warray while providing some problems for Mithun's analysis of NI does appear to be compatible with her semantically based approach. What is required within Mithun's approach is a re-analysis of the semantics of body part incorporation, and of its status as a secondary form of NI. The evidence from Warray shows that body part incorporation is a primary form of incorporation and that it is locational in nature.

The organisation of NI in Warray appears to be fundamentally incompatible with Baker's abstract structure based approach. Baker (1988 : 2) sets out the generalisation "A noun can be incorporated into another category in the system of a polysynthetic language only if a noun phrase headed by that noun would be the sister of the category in the phrase structure system of an isolating language." Baker (1988 : 6) specifically states "The claim that locatives do not incorporate also needs clarification ..... Indeed, there are examples, but to the best of my knowledge they are fairly few and limited". Warray provides direct counter-examples to both the specific and general statements. There does not appear to be any way in which the possibilities for incorporation in Warray could be stated in structural terms.

While it is possible to determine the controls on what is potentially incorporable in Warray, it is not possible to set out the controls determining when incorporation will actually occur. It appears that certain incorporations are obligatory (e.g. dum-bay?-m-arl 'to open one's eyes' and bam-berrngberrng-m-arl 'to shake one's head' given before). However most incorporations are optional and it is probable that discourse factors (independent occurrence as new information vs incorporation as old information c.f. Merlan 1976) play an important role in controlling the actual occurrence of NI. However the lack of a suitable text basis prevents comment on this aspect of NI in Warray.

## 6. SYNTAX

Warray falls within the typological category of "free word order"/ non-configurational languages. It shows the following properties characteristic of this grammatical type.

1. Free Word Order
2. Syntactically Discontinuous Clause Constituents
3. Indeterminate boundaries for NP's and Clauses

The Noun Phrase and The Clause.

We have been using the terms NP and clause so far, without having analysed these terms. Their definition is in fact rather problematic. It does not appear possible to define these concepts in terms of discrete categories, with particular examples either being members or not being members of the categories. Rather it appears that focal concepts may be defined for each, with particular examples more or less clearly satisfying particular elements of these focal concepts.

An NP may be focally defined as a syntactically continuous sequence of nominals referring to an entity. Within the sequence the members will occur in a head - modifier order. The sequence may bear an argument relationship to a VC. This argument relationship will be unmarked, in general, if it is a core relationship. If the relationship is peripheral then the nominal sequence will take case marking for that relationship on its last member. A clause may be defined as consisting either of a VC and its NP arguments, or of two NP's.

NP's which solely involve a relationship of modification between the members in general fulfil all of the above requirements. These "simple" NP's consist maximally of a head nominal and a noun or adjective modifier. They are only rarely discontinuous and show a fairly consistent ordering of head followed by modifier. Core arguments are un-case-marked, unless they take ergative marking. Peripheral arguments take the appropriate case marker on the final member of the NP. However even with these simple argument clauses problems variations do occur.

1. waynlak angilak bat-but-nay-na-y a-gubam-u  
right now 1sgSNP-3plO-PR-see-A Cl-lots-OBL  
bondelbondel  
magpie  
Right now I am looking at lots of magpies.

2. mimi ga-wayi-n nguny-u-wu manma-yajiyn

uncle NP-return-NP 2sg-OBL-DAT 1dlincSNP-go A  
When your uncle comes back we will go.

3. wang-yi garnngak ban-bi-yn  
animal-ERG bullant 1sgO-bite-PP  
The bullant bit me.

In ex 1 the modifier precedes the head and in ex 2 the NP is syntactically discontinuous. In ex 3 the case marker does not occur on the final member. Unless these three examples are to be excluded from the category of NP, which would seem most undesirable as they fulfil the other criteria, it is necessary to recognise that even for simple NP's that no single criterion is an absolute diagnostic for the NP category.

Given that NP's cannot be absolutely defined, it follows that clauses also cannot be absolutely defined. In many situations it is unproblematic to determine what constitutes a clause, as particular NP's can in general be viewed as arguments of only one VC. However there are cases where NP's could equally plausibly relate to either of two VC's. Thus in Text 11, lines 11 and 12 there is a sequence;

4. la-m bigirring-u jibak lurra-m-iyn  
spear-PP 3pl-DAT fish bring back-Aux-PP  
He speared the fish and brought it back to/for them.

These two nominals could equally plausibly be arguments of either VC (He speared the fish for them and brought it back', 'He speared it for them, the fish and brought it back'). Neither case marking nor word order will serve to determine which VC they are arguments. The only other potential criterion is intonation groups. However each of the words in the preceding example is an independent intonation unit. Therefore this will not serve either to determine the problem. Indeed there is in general no clear correlation between intonation units and putative clauses. In line 1 in the same text the sequence

5. al-dumarru yungoy-iyn bu-ka-n-iyn muya  
F-old woman go-PI hunt-Aux-UNM-PI tucker  
The old woman used to go hunting tucker.

is an one intonation unit, but presumably two clauses. It should be noted that the sequence in ex 4 is unambiguous and does not constitute a problem from a communicative point of view. It only constitutes a problem from the point of view of theories that require discrete clause categories.

If an argument of a VC involves any internal adnominal relationships other than simple modification then considerable variations in case marking and sequencing occur. In some cases it appears desirable to treat the particular examples as NP's. In other cases they appear not to be NP's, and in other cases their status is indeterminate. In general any continuous sequence of nominals bearing a single argument relationship to a VC will be treated as an NP.

Warray does not exhibit any form of relative clause structure. If a clause is intended to have an adnominal restrictive meaning this may be achieved in either of two ways. The clause may be completely unmarked, with the modifying relationship being interpreted from textual/contextual factors. Alternatively the clause may be marked with the dative case marker, which functions as the adjunction marker in Warray, to indicate that there is a variation from the norms of textual organisation. One of the possible variations is that a clause is to be interpreted as modifying a nominal.

#### 6.1 Simple Argument Clauses.

In these clauses the only case marker which normally occurs with core arguments is the ergative (3.8.1). Otherwise core arguments are normally unmarked. Thus with a trivalent verb both the non-Subject core arguments are usually unmarked.

1        wang at-wo-y jatbula  
meat 1sgS-give-PP old man  
I gave the meat to the old man.

not;

2.       \*wang at-wo-y jatbula-wu  
meat 1sgS-give-PP old man-DAT

Similarly an argument cross-referenced with nat-, the Indirect Object prefix would not normally have a case marker.

3.       mimi at-nat-ji-yi  
uncle 1sgS-IO-say-PP  
I told uncle.

not;

4.       \*mimi-wu at-nat-ji-yi  
uncle-DAT 1sgS-IO-say-PP

There are however exceptions to the preceding generalisation. The trivalent verb *nim-b-al* 'to transport something for somebody' always had a dative marked Object.

5.     *an-mewel at-nim-b-iyn jatbula-wu*  
BP-clothes 1sgS-transport-Aux-PP old man-DAT  
I brought some clothes for the old man.

Free pronoun goal Objects or Indirect Objects take dative case marking.

6.     *mimi nguny-u-wu an-ga-na-n an-ga-wu-n*  
uncle 2sg-OBL-DAT 2sgS-NP-see-NP 2sgS-NP-give-NP  
*girri a-gala-wu*  
money NF-3sg-DAT  
If you see your uncle you give him this money.

7.     *jugung-yang nat-butj-bu-m al-gala-wu*  
aunt-ABL IO-send-Aux-PP F-3sg-DAT  
Her aunt sent her (the clothes).

It is not clear what factors control the appearance of dative case marking with non-pronominal Objects.

All peripheral simple arguments are case marked, apart from the exception already mentioned of allatives of place names (3.8.3). If a simple argument consists of more than one word then the case marker will occur only once and nearly always on the final word in the argument.

8.     *li-yn yurl a-gutjgutj-u-lik*  
fall-PP ground Cl-wet-OBL-L0C  
He slipped on the wet ground.

9.     *bat-bu-ka-ngi wang jogot-u*  
1sgSNP-hunt-Aux-A animal rock wallaby-DAT  
I am hunting for rock wallabies.

10.    *munjiwa a-mudek-yi wang dayn-mi*  
knife Cl-big-INS meat cut-Aux PP  
She cut up the meat with a big knife.

#### 6.2.1 Arguments with Pronominal Genitive Constituents.

Pronouns are the only class of nominals which can form adnominal genitives (3.8.6). Arguments involving these adnominal genitives are in general case-marked in the same way as simple NP's.

1. a-wulgan nguny-u-yi nal gaji bu-m  
M-sibling 2sg-DAT-ERG man that hit-PP  
Your brother hit that man.

2. yajiyn genganawu al-wulgan nguny-u-wu-lik le  
go PP over there F-sibling 2sg-OBL-DAT-LOC camp  
He has gone over to your sister's camp.

The modifying pronoun follows its head and takes case-marking for both its adnominal genitive function and the argument role of the NP. However variations from this pattern are attested.

3. a-wulgan a-gala-yi nal genganawu bu-m  
M-sibling NF-3sg-ERG man over there hit-PP  
His brother hit the man over there.

4. yajiyn an-wak al-gala-wu  
go PP Cl-little F-3sg-DAT  
She has gone to her daughter's.

5. an-ga-yiyn bodawan an-mewel ngek-u-wu  
2sgS-NP-go NP Darwin BP-clothes 1sg-OBL-DAT  
an-ga-mayn mamam-lik ngek-u-wu  
2sgS-NP-get NP daughter-LOC 1sg-OBL-DAT  
ana-ga-wu-n ban-ga-nim-b-al  
2sgO-NP-give-NP 1sgO-NP-transport-Aux-NP  
When you go to Darwin, you get my clothes. (They are) at my daughter's. She will give them to you and you bring them back for me.

6. an-mewel at-mi bat-yajiyn larriwu  
BP-clothes 1sgS-get PP 1sgSNP-go A tomorrow  
mamam-u ngek-u-wu  
daughter-DAT 1sg-OBL-DAT  
I got some clothes. Tomorrow I will go and get them for my daughter.

7. girri bat-ga-ga-ngi al-wulgan nguny-u-wu  
money 1sgSNP-PR-have-A F-sibling 2sg-OBL-DAT  
I have some money for your sister.



In ex 3, there is no marking of the locative argument function of the NP. In ex 4 there is no marking of the adnominal genitive function of the pronoun. In ex's 5 and 6 both functions are marked, but on different members of the NP. In ex 7 the dative marked pronoun could be marking either or both of the relationships.

While these examples show considerable variations in case marking patterns it nevertheless appears desirable to class these arguments as NP's. The expressions are all syntactically continuous, display the head modifier order characteristic of NP's, and bear a single argument relationship to a VC.

#### Arguments Involving other Genitives.

As only pronouns can form adnominal genitives it is unsurprising to find that constructions involving other genitives are complex and variable. When the argument has an allative or ablative role the possessor receives the appropriate argument case marking and the possessed is unmarked.

1. mimi-lik le bat-yajiyin  
uncle-LOC camp 1sgSNP-go A  
I will go to uncle's camp.

2. jatbula-yang le bat-wayi-yn  
old man-ABL camp 1sgSNP-return-A  
I will come back from the old man's camp.

If the NP is in any other role then either the genitive relationship will be expressed by an independent predicate genitive or it will not be marked.

3. muya bat-ga-ga-ngi al-wulgan warriba al-gala-wu  
tucker 1sgSNP-PR-have-A F-sibling children F-3sg-DAT  
lit. I have some tucker, sister, her children.  
prof. I have some tucker for sister's children.

4. ngirri al-dumarru gaji ban-bi-yn  
dog F-old woman that 1sgO-bite-PP  
lit. Dog, old woman, that bit me.  
prof. The old woman's dog bit me.

#### Arguments with Comitative Constituents.

Arguments with comitative constituents show considerable variations in marking patterns.

1.     nal gijawak-yiwu bu-m mimi  
man beard-COM hit-PP uncle  
The man with the beard hit uncle.

2.     anbat wik-yiwu ban-bu-m  
can water-COM 1sgO-hit-PP  
He hit me with a billycan full of water.

3.     bipi nguny-u-wu genganawu ga-ni-ni nal an-jerriynba  
father 2sg-OBL-DAT over there NP-PR-sit man Cl-other  
gijawak-yiwu ga-ba-mutj-ni-lul  
beard-COM NP-3plS-together-sit-pair  
Your father is sitting over there. The other man with the beard, they are  
both sitting together.  
prof. Your father is sitting next to the man with the beard.

4.     genganawu ba-yajiyn girri-lik bulk-lik  
over there 3plS-go PP hill-LOC white ochre-LOC  
They went over there to the hill with the white ochre

5.     bali-yajiyn girri loywa-yiwu bali-na-y  
1plSNP-go A hill red ochre-COM 1plSNP-see-A  
We are going to have a look at the hill with the red ochre.

6.     bat-yajiyn girri bat-na-y loywa-lik  
1sgSNP-go A hill 1sgSNP-see-A red ochre-LOC  
I am going to have a look at that hill with red ochre.

7.     bali-yajiyn anlung.ga-lik mabul-yiwu anlung.ga  
1plSNP-go A billabong-LOC lily sp-COM billabong  
bali-yajiyn guwaley-u  
1plSNP-go A turtle-DAT  
We are going to that billabong with the mapul lilies. That billabong is  
where we are going for turtles.

8.     ga-ba-wayi-n anlung.ga-yang jingayn-yiwu  
NP-3plS-return-NP billabong-ABL red lilly-COM  
They are coming back from the billabong with the red lilies.

9. genganawu loywa-yang girri gaji ga-gulu-j-i  
 over there red ochre-ABL hill that NP-stand-Aux-NP  
 gaji-yang ga-wayi-n  
 that-ABL NP-return-NP

lit. Over there from the red ochre. That hill standing (there). He is coming back from there.

prof. He is coming back from the hill with the red ochre.

It appears from the examples that it is possible for either or both of the comitative relationship or the argument relationship to be marked. Furthermore it would appear that this marking may be realised in a number of ways, indeed probably in yet further different ways to those exemplified here.

#### Conjoined Noun Phrases.

1. ga-dirri-m-al an-bat an-nebe-yi  
 NP-crawl-Aux-NP BP-knee BP-hand-INS  
 He is crawling on his hands and knees.

2. bun-ga-ba-balawa-n loywa-yi bulk  
 3plO-NP-3plS-paint-NP red ochre-INS white ochre  
 They paint them with red and white ochre.

3. al-dumarru-yi bu-m nal a-gala-wu girri-yi  
 F-old woman-ERG hit-PP man NF-3sg-DAT stone-INS  
 jip-m-iyn yumbal-yi bu-m  
 bash-Aux-PP stick-INS hit-PP

The old woman hit her husband. She bashed him with a rock and hit him with a stick. (the NF pronoun a-gala-wu appears to be a mistake for the F form al-gala-wu)

prof. The old woman hit her husband with a rock and a stick.

These forms show the same pattern of variation in the realisation and distribution of case-marking found in other complex NP types.

3. no-y wek-yang ba-lu-ka-ngi-yiwu li-yn  
 burn-PP fire-ABL 3plS-light-Aux-PP-COM fall-PP  
 lit. It burnt from a fire lit by them and it fell down.  
 They killed the tree with fire.

Example 7 is of some interest as it is the only example of an instrumental VC. Attempts to replicate ex 7 failed. A proffered English example of the type 'You kill goannas by swinging them round and round'. was translated by;

8. larliyn an-mi an-layn an-waruwaru-m-al-ayn

goanna 2sgS-get PP BP-tail 2sgS-swing-Aux-UNM-PI

an-bu-m giknurruwat

2sgS-kill-PP dead

You grabbed a goanna by the tail and swung it around and around and killed it.

The problems in replicating ex 7 appear to stem from a general tendency to avoid case marking VCs and a general tendency to avoid complex argument structures. Both of these tendencies are exhibited in a fairly random fashion in the expression of complex arguments. There can be little doubt that ex 7 represents a genuine, though rare, method of expressing the concept of an instrumental action. Ex 7 was given completely spontaneously, before I was even aware of the possibility that VCs could be case marked. Indeed this example first alerted me to that very possibility.

One area which exhibits the second tendency mentioned previously, that of avoiding a complex argument structure, is complex comitatives. In all of the following examples the proffered English elicitation base is given after the translation.

9. litji-yiwu ga-wayi-n muya jela-yiwu

dilly bag-COM NP-return-NP tucker yam sp-COM

bi-nyiyn gujili-m-iyin

dig yam-PI fill-Aux-PP

She is coming back with a dilly bag. She has filled it up with jela yams that she has dug.

prof. She is coming back with a dilly bag full of jela yams.

10. bupal-yang wik but-mi ga-nyil-al anbat-yiwu

creek-ABL water get water-Aux PP NP-bring-NP can-COM

She got water from the creek. She is bringing it in acan.

prof. She is coming back from the creek with a billycan full of water.

11. yajiyn bodawan al-gulbe gaging jim-u ga-ngi

go PP Darwin F-woman yesterday come-DAT take-PP

He has gone to Darwin. That woman who came yesterday took him.

prof. He has gone to Darwin with that woman who came yesterday.

In these examples the "head" and the comitative "modifier" are in separate NPs in separate clauses. All attempts to elicit a complex comitative expressed in a manner parallel to the way that the complex instrumental is expressed in ex 6 failed.

#### 6.2.2 -lik : Locative Function.

It appears that complex locatives are also usually avoided.

b) Comitative.

c) Relative Clause.

3. ga-ni-ni genganawu nal gaji gaging i-na-y-u

NP-PR-sit over there man that yesterday 1plS-see-PP-DAT

gaji ga-ba-ni-ni-lul

that NP-3plS-PR-sit-pair

He is sitting over there, the man that we saw yesterday. That one (and him), they are both sitting together.

prof. He is sitting over there with that man we saw yesterday.

There are other examples of locatives of comitative and relative clause NPs. They are all of the type shown in ex 2 and 3 (i.e. instead of saying 'X is sitting next to Y', you say 'X,Y they are sitting together'.). Warray does have clauses with locative marking on the VC. These invariably describe places where a particular event X happened, and so clause 'X-lik' means 'the place where X happened'. Example 8 in the following section shows one of these locative marked clauses, as does ex 3 in 5.8.2, and there is one in Text 10 lines1 and 2.

#### 6.2.3 -lik : Allative Function.

Complex allatives behave quite differently from complex locatives.

b) Comitatives.

The most immediately obvious point about this group of examples is the wide variation in marking.

3.     Head-LOC     Modifier-LOC
4.     Head   Modifier-COM
5.     Head   Modifier-LOC
6.     Head-LOC     Modifier-COM

Of the examples 5 is the most problematic. It would seem a somewhat doubtful proposition that the "Head" girri and the "Modifier" loywa-lik are in the same NP, as they are separated by the VC bat-na-y. This would suggest that they are in two different NPs. However the locative case marker -lik on loywa can relate only to the VC bat-yajiyn, not to the VC bat-na-y. This would suggest that girri and loywa are in a syntactically discontinuous NP. As was suggested in 6.2.1 ex 6 and 7 it is probably not profitable to pose these questions in Warray. It is clear that loywa 'red ochre' modifies girri 'hill' in ex 5. There does not appear to be any evidence that Warray requires this to be done within the boundaries of a precisely defined NP.

c) Relative Clauses.

7.     anlung.ga-lik i-yajiyn mardukal mi wang  
billabong-LOC 1plS-go PP barramundi get PP animal  
an-bitbit-u i-na-y  
Cl-red-OBL 1plS-see-PP

We were going to that billabong (where sister) caught that barramundi when we saw cattle.

8.     bali-yajiyn genganawu girri-lik jatbula ga-ni-ni-lik  
1plSNP-go A over there hill-LOC old man NP-PR-sit-LOC

We are going to that hill over there where the old man sits. (referring to a dreaming site)

In ex 7 there is no overt indication that mardukal mi modifies anlung.ga-lik. Mardukal mi is a perfectly normal independent clause. The modification relationship is to be inferred from the contextual information.

In ex 8 the locative/allative case marker -lik occurs on both the head nominal girri-lik and the modifying clause jatbula ga-ni-ni-lik. The sequence girri-lik jatbula ga-ni-ni-lik is one of those sequences which are difficult to categorise from an NP point of view. The -lik marking on jatbula ga-ni-ni overtly indicates that it modifies girri-lik, but jatbula ga-ni-ni-lik is in a separate intonation unit from the rest of the example which would suggest that it is an afterthought comment. As elsewhere it would seem best to recognise that the relationships exist without attempting to force the words expressing the relationships into formally defined categories which may not fit. girri-lik

jatbula ga-ni-ni-lik may still be described as an NP because the whole expression clearly has an argument relationship to bali-yajiyn, but this argument relationship does not have any necessary formal correlates.

#### 6.2.4 -yang : Ablative Function.

##### c) Relative Clauses.

4. anlung.ga-yang gaging i-yajiny-u-n gaji-yang  
billabong-ABL yesterday 1pls-go PP-DAT-CONS that-ABL  
ga-ba-wayi-n  
NP-3pls-return-NP

lit. From that billabong that we went to yesterday, from that one they are coming back.

They are coming back from that billabong we went to yesterday.

In ex 4 the VC iyajinyun has the adjunction marker -u-n (see 5.5.2), which indicates that it modifies anlung.gayang. This example is generally parallel to ex 7 in the preceding section on allatives, as adjunction marking is optional.

#### 6.2.5 -yang : Causal Function.

There are a number of ways in which a speaker may deal with a sequence of two clauses describing a cause and its result. The commonest method is simply to appose the two clauses, leaving the causal relationship to be inferred.

1. bulbul lagi-yn wik a-gubam-u bi-ng  
sick toss-PP booze Cl-lots-OBL drink-PP  
He is sick from drinking too much booze.

The next commonest method is to mark a nominal (usually the nominal describing the causal entity) in the cause clause with -yang.

2. bulbul lagi-yn wik-yang a-gubam bi-ng  
sick toss-PP booze-ABL Cl-lots drink-PP  
He is sick from drinking too much booze.

We should note in ex 2 that even though wik a-gubam is a simple NP the case marking does not occur on the final element in that NP as we might expect it to (see 6.1). A third rare alternative is to mark both a nominal and the VC in the cause clause with -yang.

3.     wek a-mudek ga-nun-nu-n an-wak-u-yang  
 fire Cl-big NP-PR-burn-NP Cl-little-OBL-ABL  
 ba-lu-ka-ngi-yang  
 3plS-light-Aux-PP-ABL  
 The fire is burning big (now) from the little (start) they lit.

There are of course situations where the cause is described only by a VC, when that VC is marked with -yang.

4.     an-wik bitbit-ji-yn at-derretbu-yi-yn-yang  
 BP-skin red-inch-PP lsgS-scratch-refl-PP-ABL  
 My skin has gone red from me scratching it.

though the tendency of Warray to avoid case marking VCs is demonstrated by;

5.     bulbul-yang an-wik ban-no-y at-bitbit-ji-yn  
 sick-ABL BP-skin lsgO-burn-PP lsgS-red-inch-PP  
 amala-yang gat-derretbu-yi-n  
 Neg-ABL IRRlsgS-scratch-refl-NP

My skin has gone red and is burning from fever, not from me having scratched it.

where the Negator amala, a particle, is case marked rather than the VC gat-derretbu-yi-n.

#### 6.2.7 -wu : Benefactive/Purposive Function.

##### a) Complex Arguments.

5.     girri bat-ga-ga-ngi al-gala-wu al-gulbe gaging  
 money lsgSNP-PR-have-A F-3sg-DAT F-woman yesterday  
 i-na-y-u-n  
 1plS-see-PP-DAT-CONS  
 lit. I have some money for her, the woman we saw yesterday.  
 prof. I have some money for the woman we saw yesterday.

##### b) Clauses.

In Warray it is possible though rare to mark a clause with -wu to indicate that it is in a purposive relationship to another clause. In such cases the VC is always dative marked and the nominals may be (we should note the difference



from causal sentences where the origin case suffix usually occurs on the nominals in the cause clause).

6. amala muya-wu gat-mayn munjiwa

Neg tucker-DAT IRR1sgS-get NP knife

nigirring-u gaji ngek-u-wu wang-u

2pl-DAT that 1sg-OBL-DAT meat-DAT

bat-dayn-mi-yu

1sgSNP-cut-Aux A-DAT

I did not get that knife for you mob (to cut up) tucker. That is mine  
for cutting up meat.

7. wulek-m-al-u amala bali-bi-ng-u wik

wash-Aux-irr-DAT Neg 1plSNP-drink-A-DAT water

It is not for washing, it is for us to drink, that water.

8. muya ngayk-m-a larriwu an-ga-ja-l-u

tucker keep-Aux-IMP tomorrow 2sgS-NP-eat-NP-DAT

Keep that tucker so you can eat it tomorrow.

### 6.3 The Infinitive.

While it is possible to dative case mark a VC to show that it is in purposive relationship to another clause as the preceding examples demonstrate, the usual method of describing such a purposive relationship is with an infinitive clause.

The infinitive in Warray is best viewed as a nominalised verb. It consists as we have seen of an Irrealis verb followed by the dative (see 4.3.2.2). Infinitive clauses are nearly always purposive in function, but there is one example where it is not;

1. a-muku bali-yajiyn-lul lit-bu-n-u litji

Cl-good 1plSNP-be A-pair sew-Aux-UNM-DAT dillybag

We are good at making dillybags.

Infinitives show a number of similarities to nominals. Firstly as their name implies they do not have any temporal or aspectual reference.

2. larriwu ga-ba-yiyn nyip-m-al-u

tomorrow NP-3plS-go NP swim-Aux-UNM-DAT

Tomorrow they will go for a swim.

3.     gaging ba-yajiy nyp-m-al-u  
yesterday 3pls-go PP swim-Aux-UNM-DAT  
Yesterday they went for a swim.

Secondly, like nominals, they cannot take the pronominal prefixes which are found in VCs.

4.     i-nat-ni-niyn warrki-m-al-u  
1pls-IO-stay-PI work-Aux-UNM-DAT  
lit. We stayed a long time for him for working.  
We stayed a long time working for him.

Despite the fact that nat-, the Unexpected Object marker which in this case is representing a benefactive, is obviously more closely associated semantically with the working than the staying it must appear on i-ni-niyn 'we stayed a long time' because this is a VC, while warki-m-al-u is an infinitive. The third similarity that infinitives show with nominals is in their behaviour with the Negator amala. Amala virtually always precedes VCs and follows nominals (with nominals this is a reflection of the fact that modifiers follow heads see 5.7.1). Amala follows the infinitive in all examples.

5.     i-jim anlung.ga-lik nyip-m-al-u amala  
1pls-come billabong-LOC swim-Aux-UNM-DAT Neg  
guwaley-u many-u i-jim  
turtle-DAT get UNM-DAT 1pls-come

We came to this billabong not for swimming. It was for getting turtles that we came.

While infinitives show this evidence of being nominalised, they are different from nominals. Firstly they are always dative case marked whatever the circumstances (c.f. ex 1) whereas nominals will be dative case marked only in the appropriate circumstances. More importantly the relationship between the words in an infinitive clause such as kuwaley-u mayn-u in ex 5 is different from the head - modifier relationship found in NPs. The words in infinitive clauses are obviously in a verb and argument relationship.

For these reasons it seems most appropriate to analyse the infinitive as a nominalised verb rather than a nominal. This description captures both its structure and function. Some further examples are;

6.     gurduwak in-ga-ngi wang-u le-n-u  
name n3plO-take-PP game-DAT shoot-UNM-DAT

David took us out shooting.

7.     wang gaji ngiderr jul-m-al-u ja-l-u amala  
meat that hook fish-Aux-UNM-DAT eat-UNM-DAT Neg  
That meat is for fishing with a hook, not for eating.

This example is of importance because it shows an argument other than an Object, in this case the instrumental, occurring in an infinitive clause. All other infinitive clauses involve only Object nominals.

8.     yumbal gaji at-dayn-mi wili bula-n-u wek-u  
wood that lsgS-cut-Aux PP house make-UNM-DAT fire-DAT  
amala  
Neg  
That wood I cut for building a house, not for a fire.

It may be observed from the examples that a nominal occurring in an infinitive clause may be either zero or dative marked. Of the two possibilities, dative marking appears to be slightly more common.

#### 6.4 Adjunction.

One of the major functions of the dative case marker in Warray is to mark adjunction. In this function it often occurs with a morpheme -n, the Consequential, suffixed to it. The dative and the consequential cover a wide range of functions. Before however considering the use of these two suffixes to mark adjunction, we shall first give some consideration to the nature of adjunction in Warray.

It has frequently been observed that in Australian languages the structures which describe what corresponds to subordination in other languages such as English, show in fact very little evidence of being subordinated to a main clause. This was first discussed by Hale in his 1976 article "The Adjoined Relative Clause in Australia.", and has since been a recurrent theme in many grammars of Australian languages. In general "subordinate" clauses show a loose paratactic and altogether independent relationship to the "main" clause.

Warray is no exception to this state of affairs. "Subordinated" clauses show little evidence of being reduced to some argument-like status as a part of the "main" clause. It is for this reason that the term adjunction is used rather than subordination in this grammar. Of the numerous discussions on the nature of adjunction/subordination in Aboriginal languages, the one which best serves as a starting point for discussion of the situation in Warray is given by Merlan in her Ngalakan grammar (Merlan 1983 pp 136 - 137). There she states that "the

common denominator of subordination in Ngalakan is signalling that the interpretation of the clause is to be made by recourse to something else, generally to a preceding constituent, but up to and including larger information units."

## 6.5 The Dative

We have taken as a starting point the idea that the function of the dative in adjunction is to signal that a clause is to be interpreted by recourse to another information unit. In normal language usage however, all information units are obviously being interpreted in relation to other information units. Therefore it would seem reasonable to assume that dative marking of adjunction must have some function beyond simply indicating this fact. In Warray it appears that the major function of adjunction marking is to indicate variation from, or addition to, the standard conventions governing how clauses are interpreted.

There appear to be two standard conventions governing the interpretation of clauses.

1. VCs are the central pieces of information in a clause and the nominals occur to provide extra information about the basic predication expressed by the VC.

2. When declarative clauses occur in a sequence, each clause will be interpreted as providing the setting/point of departure for the next clause. Furthermore declarative clauses will normally occur in the same sequence as the temporal sequence of the events they describe.

Adjunction marking tends to mark the following variations from these conventions.

1. When a nominal is to be interpreted as the central piece of information, with a VC/clause providing extra information about that nominal.

2. When a declarative clause provides a setting/point of departure for a preceding clause.

3. When two declarative clauses are to be interpreted as co-conditional. That is the two clauses are to be interpreted as contemporaneous (or virtually so), with the dative marked clause being a condition to the occurrence of the other. Context determines whether the contemporaneity or conditionality element is foremost.

In these three cases the intended interpretations are contrary to the standard interpretations, and so adjunction marking is likely.

In addition to this major function, it appears that the dative has a minor emphatic function, where it serves to emphasise an already obvious fact that a clause is to be interpreted in relation to some other information unit. In the examples available this occurs in situations where the marked VC has undesirable consequences, or when the speaker wishes to induce the hearer to do something quickly.

All of these functions of adjunction marking could in any particular situation be obvious from textual or contextual information, and presumably this is why, at least partly, adjunction marking is optional.

#### 6.5.1.1 Adnominal Adjunction.

This type of adjunction covers the area dealt with by clefts and relative clauses in English.

##### a) Clefts.

1.    le marriwaku-yang i-yu-yiny-u  
      camp old days-ABL 1plS-camp-PI-DAT  
      That old camp is where we used to camp.

This clause may be opposed to a clause with an ordinary interpretation.

2.    le marriwaku i-yu-yiyn gaji-lik  
      camp old days 1plS-camp-PI that-LOC  
      We used to camp in the old days at that place   (Minpulinj).

##### b) Relative Clauses.

3.    ebing genganawu ga-jim-in  
      who over there NP-come-NP  
      Who is that coming up over there?

ajang.gi al-gulbe an-nguni-wu-n-iny-u gaging  
      maybe F-woman 2sgS-talk-Aux-UNM-PI-DAT yesterday  
      gaji-wa ga-jim-in  
      that-could be NP-come-NP

Maybe it is that woman you were talking to           yesterday. It could be her coming up.

c) Indefinite NPs.

The use of adjunction marking is especially common in clauses involving indefinite NPs.

4.     an-wak eping-woy mimi-yi ga-ngi-yu bodawan  
Cl-little who-one of uncle-ERG take-PP-DAT Darwin  
Which one of those kids did uncle take to Darwin?

gok ebing  
Don't know who  
I do not know who.

In these cases the rest of the clause functions to provide information which will help to determine the identity of the referent of the indefinite NP.

6.5.1.2 Interclausal Adjunction.

a) Causal.

5.     bulbul lagi-yn wik-yang bi-ng-u  
sick toss-PP booze-ABL drink-PP-DAT  
He is sick from drinking booze.

We should note that in all the available examples the dative only ever occurs in causal constructions when the Origin marker -yang is also present. This would suggest that a causal situation such as in ex 5 could not be described with a sentence;

6.     bulbul lagi-yn wik bi-ng-u  
sick toss-PP booze drink-PP-DAT

This example would mean 'He got sick while/when drinking booze'.

b) Co-conditionality.

Normally a clause marked with the dative will be interpreted as being either a precondition on the occurrence of another clause or clauses as in example 6 in the preceding section, or as being contemporaneous with a following clause or clauses.

7. bat-nat-ji-yi bat-na-y-u  
1sgSNP-IO-say-A 1sgSNP-see-A-DAT  
I will tell him when/if I see him.

8. a-jamurru bat-nay-na-y ga-jim-in-u  
M-boliceman 1sgSNP-PR-see-A NP-come-NP-DAT  
bat-li-lili-m-iyn bat-yajiyn bat-walmi-j-ang  
1sgSNP-PR-run-Aux-A 1sgSNP-go A 1sgSNP-hide-Aux-A  
Every time I see a policeman coming, I run away and go and hide.

9. nendu ba-ba-bu-n-iny-u bun-lagi-l-ayn  
horse 3plS-ride-Aux-UNM-PI-DAT 3plO-toss-UNM-PI  
Whenever people rode that horse it threw them.

10. marriwaku wang an-gujik-u ba-yungoy-iyn  
long ago animal Cl-black-OBL 3plS-go-PI  
ba-le-n-iyn-u wang ngek mutjla  
3plS-shoot-UNM-PI-DAT animal 1sg too  
at-yungoy-iyn le-lik at-ni-niyn mua  
1sgS-go-PI camp-LOC 1sgS-stay-PI tucker  
at-ngum-bu-n-iyn bigirring-u  
1sgS-cook-Aux-UNM-PI 3pl-DAT

In the old days when (the men) used to go out shooting buffaloes, I used to go too. I used to stay in the camp and cook for them.

11. wik amala gan-wuli-yu a-muku bali-buluk-ni-wiyn  
rain Neg IRR-rain-DAT Cl-good 1plSNP-cross-Aux-A  
pin amala wik ga-wuli-yn amala gali-buluk-ni  
but Neg rain NP-rain-NP Neg IRR1plS-cross-Aux

If it does not rain, then good, we will be able to cross, but if not and it does rain then we will not be able to cross.

12. ba-na-y mimi jim-u ba-wu?-wu?-bu-m  
3plS-see-PP uncle come-DAT 3plS-R-clear off-Aux-PP  
When they saw uncle coming, they cleared right off.

As we remarked in 5.5.1 in declarative clause sequences each clause is normally to be interpreted as providing the setting/point of departure for the following clause, with the clauses being presented in the same sequence as the temporal sequence of the events they describe. In many situations if the clauses are presented in event sequence it is obvious from text or context that a particular clause is not only a setting, but also a precondition, to the

occurrence of a following clause. Therefore overt marking of preconditionality is much less likely when the clauses are in event sequence. However if the clauses are not in event sequence then adjunction marking is probable to indicate that a clause is a precondition for a preceding clause. Therefore we are likely to get;

13. ga-wayi-n bat-nat-ji-yi  
NP-return-NP 1sgSNP-IO-say-A  
When/if he comes back, I will tell him.

14. bat-nat-ji-yi ga-wayi-n-u  
1sgSNP-IO-say-A NP-return-NP-DAT  
I will tell him when/if he comes back.

In ex 13 it would in most circumstances be reasonable to interpret gawayin as a precondition, not just a setting. However in ex 14, without the presence of dative marking, it would not be reasonable in most cases to interpret gawayin as a precondition. Example 14 without dative marking could just as reasonably mean 'I will tell him X that he Y is coming back', or 'I will say Z to him X and therefore he X,Y will come back'. Therefore in ex 14 dative marking has a major disambiguation function that it does not have in ex 13, and this is why adjunction marking is more likely when clauses are not in event sequence.

#### 6.5.1.3 Emphasis.

As was mentioned in 5.5.1 the examples of this function occur when the marked VC has undesirable consequences, or is being used to induce a speedy action on the part of the hearer.

1. but-ganimup-m-iyn guyn gat-but-ga-n-u bin  
3plO-forget-Aux-PP M.O. IRR1sgS-3plO-take-P-DAT but  
amala  
Neg  
I forgot them (the kids). I thought that I had taken them, but no (I had not).

2. bun-nat-wit-m-a ngirri mirral jul-j-ang  
3plO-IO-whistle-Aux-IMP dog sun go down-Aux-PP  
i-watj-yiny-u  
1plS-hurry-go HOR-DAT  
Whistle for the dogs. The sun is going down. Let's hurry up and go.



3.     ban-wo-y-u anjalmi bat-wo-y  
 1sgO-give-PP-DAT in turn 1sgSNP-give-A  
 lit. What he gave me, in return I will give him.  
 I will pay him back for what he did to me.

4.     ma-yiny-u lukluk yayn  
 1dlincS-go HOR-DAT Hurry come IMP  
 Let's go! Hurry up! Come on!

#### 6.5.2 The Consequential.

The consequential (CONS) is a morpheme -n which always occurs suffixed to the dative. In much of the range it occurs, there does not appear to be any difference between the occurrence of DAT-CONS as opposed to a simple DAT. The two appear to be largely interchangeable. There are however some differences between the two. The most important of these is the function from which the CONS derives its name.

1.     mamam ngek-u-wu yajiny-u-n ajang.gi genganawu  
 daughter 1sg-OBL-DAT go PP-DAT-CONS maybe over there  
 yarrba yajiyn-wa  
 far go PP-could be  
 My daughter has gone for a long time. Maybe over       there a long way she  
 could have gone.

2.     wek at-lu-ka-ngi yumbal a-mudek ju-m gawoy  
 fire 1sgS-light-Aux-PP log Cl-big die-r again  
 gawoy at-melang-bu-m gaji-woy no-y-u-n  
 again 1sgS-set alight-Aux-PP that-one of burn-PP-DAT-CONS  
 I lit a fire with a big log. It went out again. I set it   alight       again  
 and from that time it burnt for a long   time.

The function of the CONS in ex 1 and 2 is to indicate that the situation described by the clause had some sort of long term consequences. Thus in ex 1 the CONS indicates that the person went away and stayed away. In ex 2 it indicates that the fire finally caught and burnt for some considerable time. This long term consequence meaning of the CONS is perhaps best illustrated by an example given by my teacher in the following circumstances. We were about to take a plane flight when she said that she was somewhat afraid of flying and added;

3.     bali-li-yn-u-n  
 1plSNP-fall-A-DAT-CONS

lit. We will fall with long term consequences.  
We will fall and be killed.

It is not entirely clear why the CONS in this function occurs suffixed to the dative. Obviously in ex 3 there is a need to refer to information beyond that provided in the clause. However in ex 1 it does not seem that there is any need to refer to any additional information to that provided by the CONS marked VC. Probably in most cases it would be necessary to refer to other information to determine the long term consequences of a situation. Presumably this is why the CONS occurs suffixed to the dative.

If we take this consequential meaning as a point of departure we can trace the CONS through a chain of meanings covering much the same range as the simple dative.

a) Consequential/Preconditional.

4. muya wu an-wak-waku ga-ja-l bin amala  
tucker give Cl-little-DIM NP-eat-NP but Neg  
gan-mot-m-i-wu-n wirriyn-ga-ng  
IRR-keep quiet-Aux-NP-DAT-CONS walk-take-IMP  
ajang.gi ga-mot-m-al  
maybe NP-geep quiet-Aux-NP

Give the baby some food to eat (when he wakes), but if he does not keep quiet for some time, then take him for a walk. Maybe that will keep him quiet.

b) Co-conditional.

5 arriyn-ji-yi marriwaku-yang gaji  
1sgS->2sgO-say-A long ago-ABL that  
garriyn-ji-wu-n gakoy  
IRR1sgS->2sgO-say-DAT-CONS after  
garriyn-ya-m-i  
IRR1sgS->2sgO-tell off-Aux-NP

I told you (to do that ) ages ago. If I have to tell you again then I might tell you off.

6. bat-nat-ji-yi bat-na-y-u-n  
1sgSNP-IO-say-A 1sgSNP-see-A-DAT-CONS  
I will tell him when/if I see him.

7. an-jili ba-mim-bu bat-yajiny-u-n

BP-gate 2pls-close-Aux 1sgSNP-go A-DAT-CONS

jili wutwutmi amala gan-a-wung-i

gate open Neg IRR-2pls-leave-NP

You mob close that gate while I am gone. Don't you mob leave that gate open.

8. amala garriyn-na-n an-jim-u-n

Neg IRR1sgS->2sgO-see-P 2sgS-come-DAT-CONS

I did not see you coming.

9. ampa an-ga-ngi gaging a-yajiny-u-n

where 2sgS-take-PP yesterday 2pls-go PP-DAT-CONS

Where is (that plate) you took when you mob went (to Minpulinj) yesterday.

10. amala gan-jun-bu-n-u jarniyn

Neg IRR-miss-Aux-P-DAT kangaroo

gan-le-n-u-n wang gali-ja-l bin

IRR-shoot-P-DAT-CONS meat IRR1pls-eat-P but

amala

Neg

If you had not missed that kangaroo when you shot at it, we could have eaten meat, but (there is) nothing.

c) Causal.

11. amugoy waynlak bul-yang ba-bu-ji-ny-u-n

Okay now trouble-ABL 3pls-hit- recip-PP-DAT-CONS

wanjlak a-muku ga-ba-yiyn-yiyn

now Cl-good NP-3pls-PR-be NP

They are okay now after/from that fight they had. They are good now.

d) Indefinite NPs.

12. an-wak amba-woy an-nat-ji-yi-wu-n

Cl-little where-one of 2sgS-IO-say-PP-DAT-CONS

ga-yiyn ga-mayn nguny-u-wu

NP-go NP NP-get NP 2sg-OBL-DAT

Which one of those kids did you tell to go and get it for you?

e) Relative Clauses.

13. nal gaji arriyn-ji-yi-wu-n ga-jim-in

man that 1sgS->2sgO-say-PP-DAT-CONS NP-come-NP

That man I told you about is coming up.

### 6.5.3 Differences Between the Consequential and the Dative.

From the preceding exemplification of the functions of the CONS it may be observed that the CONS frequently does not appear to serve any particular function that could not be served equally well by the occurrence of a simple dative. In terms of functional coverage, the consequential function is the only area where the CONS definitely has a clear function of its own. However the two do appear to divide the field of adjunction between themselves, though not in a particularly consistent manner.

The CONS occurs with a reasonable degree of frequency on *gaku ~ gakoy* 'after' when it occurs as a conjunction (see 5.9.3), and on the Negator *amala* when it functions as a clause level negative.

1.     *ma-wayi-n lerrik-lik gaku-yu-n wik*  
1dlinCS-return-HOR camp-LOC after-DAT-CONS rain  
*gan-wuli ganma-gutjgutj-ji*  
IRR-rain IRR1dlinCS-wet-inch  
Let's go back to camp otherwise it might rain and we might get wet.

2.     *bipi nguny-u-wu an-ga-na-n-u-n*  
father 2sg-OBL-DAT 2sgS-NP-see-NP-DAT-CONS  
*an-ga-wu-n girri bin amala-wu-n bulbul*  
2sgS-NP-give-NP money but Neg-DAT-CONS mother  
*nguny-u-wu an-ga-wu-n*  
2sg-OBL-DAT 2sgS-NP-give-NP  
If you see your father give him that money, but if not, you give it to your mother.

There are no examples of the dative occurring on a conjunction. The CONS shows a strong tendency to occur as the marker on complements of verbs of perception and emotion.

3.     *amala gan-ganimup-m-al-u andum gan-mayn-u-n*  
Neg IRR-forget-Aux-P-DAT bullet IRR-get P-DAT-CONS  
*wang gan-ma-le-n*  
animal IRR-1dlinCS-shoot-P  
If you had not forgotten to get the bullets, we could have shot something.

However the dative may also occur in this function (see 5.5.1.2 ex 12). The dative is not attested marking the complements of speech verbs. However

given that it can mark complements of perception verbs, I would suspect that this fact is merely a gap in the database, not a prohibition.

Adnominally the CONS shows a strong tendency to be used with indefinite NPs. The dative, on the other hand, is strongly favoured with relative clauses. Interclausally the dative is favoured with causals, while it and the CONS occur about equally marking precondition and contemporaneity. Both the CONS and the dative normally occur on VCs, though as we have seen the CONS may occur elsewhere. There are two examples of the dative occurring on a nominal in the adjoined clause.

4.     anlung.ga abulangu-yi gaji-wu ja-yn nal  
billabong crocodile-ERG that-DAT eat-PP man  
That is the billabong where the crocodile ate the     man.

5.     marriwaku an-bik ba-mayim bunyi-yang  
long ago BP-string 3plS-get PI banyon-ABL  
ba-boklil-iyn waynlak-u an-bik barrakut-yang  
3plS-make string-PI now-DAT BP-string white man-ABL  
In the old days they used to get string from banyon trees. They used to  
rub the fibres on their thighs.     Nowadays (they get it) from the whites.

The following table provides a summary of the likelihood of occurrence in various functions for the CONS and the dative.

Function	Dative	Consequential
Relatives	Usual	Rare
Indef NP	Less Common	More Common
Causals	Usual	Rare
Contemp/Precon	Equal	Equal
Complement	Rare	Usual
Consequential	No	Yes

This distribution of occurrences would not appear to flow from any particular organising principles, and would appear to be largely random.

#### 6.6 Summary of Case Marking.

Case marking in any language is one of the textual cohesion systems. In many languages case marking operates at a constituent level. In Warray this would appear to be true in as far as case marking generally occurs only once in an NP or clause. However it is not possible in many, if not most, situations how the case marking will be realised. Simple argument clauses show a fairly

consistent pattern of case marking, with arguments being case marked on their final member, irrespective of any textual or contextual information which may make this case marking somewhat redundant.

However as the relationships between words in an argument, and between clauses, become more complex, the patterns of case marking diverge considerably from those found in simple clauses. Four factors appear to be operating in these more complex situations. Firstly it is not possible for a case marker to function derivationally (apart from the possible but unlikely exception discussed in 6.2.3 ex 2). Secondly with complex arguments it appears that textual and contextual information plays an important input in determining the occurrence of case marking. Case marking of complex arguments shows a considerable amount of variability and this is presumably due in at least some cases to the speaker's assessments of the hearer's knowledge (e.g. 6.2.3 ex 3 - 6, and 6.2.7 ex 1 - 5). Thirdly Warray shows a tendency to avoid some types of case marked complex argument structures (see 5.3.2.1 ex 9 - 11, and 6.2.6). Fourthly each individual type of complex argument does tend to exhibit some consistency of expression. However it is not at all clear what motivates these consistencies. For example there is no obvious reason why complex allatives and ablatives should show similarities to one another and yet be totally different from complex locatives.

Thus far case marking appears to be a rather random phenomenon. However it does appear that there are at least two principles underlying the occurrence of case marking.

1. When a word has more than one case relationship, then only one of these relationships may be marked. It appears that textual and contextual factors control which of the possibilities is marked.

2. When a number of words share a common relationship, normally only one of those words is case marked to show the common relationship. When the only relationship between the words is one of modification then the case marker will occur on the final member of the group.

These two principles would explain the prohibition against case marking both the adnominal and clausal relationships of a word (i.e. quasi-derivational use of case markers), and the variability of case marking found in complex arguments. The first principle would also provide a reasonable explanation for the tendency to avoid complex argument structures. They are avoided because of the potential ambiguities arising from the fact that only one of the existing relationships can be marked.

The second principle would explain the marking pattern found for simple argument sequences of Noun + Adjective and Noun + Demonstrative. The patterns of adjunction marking would also be accounted for by the second principle

The principles do not provide a complete explanation for the patterns found within particular complex argument relationships, though a combination of the two does go some way towards doing this. Usually the case of the whole argument is only marked once. Either the modifier or head may carry this. The modifier may carry adnominal case marking, if it does not carry the argument case marking.

In addition, given that the database is limited and that some of the variations found in particular complex arguments are attested only once, it seems likely that a larger database would turn up yet further variations with the result that particular complex arguments would show less internal consistency and approach the variability suggested by the first principle. It also seems probable that a larger text corpus would show other factors having a role to play in determining the occurrence of case marking, and would also make the exact role of textual and contextual factors clearer.





## APPENDIX - VERB CONJUGATION

### -arl Conjugation

guw-arl, to tie, muy-arl, to lose, nuw-arl, to kick, ngiw-arl, to put in,  
nyil-arl, to bring, wul-arl, to finish, wung-arl, to leave

EOB only mek-guw-arl, to like

### Irregular -rl Conjugation Verbs

ja-rl, to eat, bam-ja-rl, to eat, mal-ja-rl, to eat poison  
bi-rl, to drink, ja-bi-rl, to lick, ngarndi-gat-bi-rl, to choke  
lagi-rl, to toss, butj-lagi-rl, to push

### -m-arl Conjugation

#### Intr

bak-m-arl, to break up  
bambutj-m-arl, to be born  
bam-dum-birri-m-arl, to feel dizzy  
bam-duyn-m-arl, to nod one's head  
bar?-m-arl, to get light  
bebe-m-arl, to shake  
bok/?-m-arl, to howl  
bujapbujap-m-arl, to poke around  
bula-werrk-m-arl, to go grey-haired  
bul/rrngbul/rrng-m-arl, to bubble up  
bul?-m-arl, to be angry  
burr?-m-arl, to slap one's thighs  
butj-m-arl, to smoke  
bu?-m-arl, to swell  
dang?-m-arl, to click one's tongue  
didi-m-arl, to itch  
dil-m-arl, to dry up  
dirri?-m-arl, to crawl  
dororo-m-arl, to boil  
duk-m-arl, to crack  
dul?-m-arl, to burst  
dum-bay?-m-arl, to open one's eyes  
dum-jit-m-arl, to be jealous  
dum-mup-m-arl, to close one's eyes

dum-muyk-m-arl, to blink  
garrawok-garrawok-m-arl, to  
kookaburra  
gay?-m-arl  
getla/eng?-m-arl, to cough  
gik-m-arl, to vomit  
gurditj-m-arl, to go around  
gujili-barlk-m-arl, to overflow  
gutj-m-arl, to be  
jili-way?-m-arl, to yawn  
jitjbul-m-arl, to smoulder  
jukbart-m-arl, to spit  
jitj-m-arl, to fart  
jotoy?-m-arl, to limp  
jow/u?-m-arl, to go down  
jululu-m-arl, to flow  
jul?-m-arl, to fish  
jup-m-arl, to drip  
jurrut-m-arl, to slip  
li(?)li-m-arl, to run  
lirrng-m-arl, to rattle  
mamak-m-arl, to say goodbye  
marrng?-m-arl, to lightening  
mek-gilgil-m-arl, to burp  
mirrng?-m-arl, to become hot  
mot-m-arl, to be quiet  
mok-li(?)li-m-arl, to run away  
muriyn?-m-arl, to shake  
nabat-way?-m-arl, to wave  
ngarndi-dep-m-arl, to be thirsty  
ngarndi-yilyil-m-arl, to have a tickle  
nguluk-m-arl, to talk  
nyarl-m-arl, to be tired  
nyiw/uknyiw/uk-m-arl, to sprinkle  
nyolk-m-arl, to gulp  
nyol?-m-arl, to rock  
walng?-m-arl, to hang out  
wa/o?-m-arl, to bark  
warrki-m-arl, to work  
wilik-m-arl, to swallow  
wirdi?wirdi-m-arl, to wag  
wir-m-arl, to swim across

wirrn-m-arl, to whistle  
wirriyn?-m-arl, to walk around  
wirt-m-arl, to whistle  
wurlak-m-arl, to not want to go

Tr

bam-bulk-m-arl, to knock over  
bam-m-arl, to bake  
bijip-m-arl, to squeeze  
bi?-m-arl, to blow  
bing?-m-arl, to suck  
boy?-m-arl, to tell  
bub/wek-m-arl, to clear  
bukbuk-m-arl, to blow  
bun-m-arl, to bury  
buyk-m-arl, to dislike  
dadawk-m-arl, to gnaw  
dil?-m-arl, to paint  
dol(?)dol-m-arl, to shake  
ganimup-m-arl, to forget  
geme/rrma-bijip-m-arl, to roll up  
gitjilili-m-arl, to tickle  
gijong?-m-arl, to kiss  
gubam-m-arl, to raise someone  
gujili?-m-arl, to fill  
gul-m-arl, to ask  
gut-m-arl, to put  
guwat-m-arl, to catch up  
jabatj-m-arl, to sneak up  
jabil-m-arl, to lick  
jabul-m-arl, to smoke  
jakmi-m-arl, to straighten  
jalak-m-arl, to show  
jang?-m-arl, to chew  
jap-m-arl, to stab  
jik-m-arl, to fear  
jip-m-arl, to bash  
jong-m-arl, to stretch  
juk-m-arl, to chip  
juluk-m-arl, to spill  
lep-m-arl, to knock over  
leya?-m-arl, to pass

lirr?-m-arl, to scratch  
lirrng.git-m-arl, to grit one's teeth  
lorrot-m-arl, to grind  
lurra?-m-arl, to bring back  
mara?-m-arl, to wipe  
may?may-m-arl, to want  
mulbam-m-arl, to curl up  
mutj-m-arl, to mix  
muwak-m-arl, to pick up  
nang.giyn-m-arl, to do like what  
ngarndi-wul-m-arl, to chase  
ngayk-m-arl, to keep  
nge/ir?-m-arl, to breathe  
nyip-m-arl, to swim  
warl-m-arl, to hide  
waruwaru-m-arl, to swing  
wat-m-arl, to go off  
wul-m-arl, to follow  
wurlek-m-arl, to wash  
wut-m-arl, to aim  
ya-m-arl, to argue  
yikyik-m-arl, to wake someone up  
yurn-m-arl, to talk about  
yutj-m-arl, to go a long way

DW only

Intr

bal-m-arl, to be blocked  
bam-berrngberrng-m-arl, to shake one's head  
bar-m-arl, to get cold  
bil?-m-arl, to poke one's tongue out  
dolngbutj-m-arl, to smoke  
durrut-m-arl, to storm  
guluwedelk-m-arl, to hiccup  
martmart-m-arl, to shine  
ngatji-m-arl, to sneeze  
ngayok-m-arl, to whisper  
ngok-m-arl, to howl  
ngubat.jip-m-arl, to be jealous

Tr

birrip-m-arl, to wave

bok-m-arl, to rub string  
gum-belk-m-arl, to knock over

EOB only

Intr

birrirri-m-arl, to smell  
dudu-m-arl, to storm  
jili-watjwatj-m-arl, to whisper  
jirrnga?-m-arl, to sneeze  
yila?-m-arl, to move

Tr

jondo?-m-arl, to scrunch up

dumge-gut-m-arl, to put someone to sleep duwak-gut-m-arl, to put across

-b-arl Conjugation

ga-b-arl, to roast, gat-b-arl to hold, nim-b-arl, to transport, nik-b-arl,  
to put up

Intr

walng?-nik-b-arl, to hang out

DW only

martmart-nik-b-arl

Tr

bak-nik-b-arl  
barlng?-nik-b-arl, to stick  
barrak-nik-b-arl, to spread  
dil-nik-b-arl, to dry  
dul?-nik-b-arl, to burst  
gut-nik-b-arl :  
jilil?-nik-b-arl, to jingle  
jul?-nik-b-arl, to put down  
jup-nik-b-arl, to stick into  
jurlurl?-nik-b-arl, to bog  
muriyn?-nik-b-arl, to shake

DW only

belk-nik-b-arl, to stick  
birrip-nik-b-arl, to wave

jabay-nik-b-arl, to take by hand

EOB only

ngal?-nik-b-arl

-m Conjugation

balawa-m, to rub, bula-m, to make, bu-m, to hit, ju-m, to die, nawa-m, to  
take off, nga-m, to hear

-bu-m Conjugation

Intr

barrak-bu-m, to spread

jibiyin-bu-m, to stay for ages

malak-bu-m, to dance

nyi-bu-m, to cry

wirrin-bu-m, to sing

wu?-bu-m, to clear off

Tr

bak-bu-m, to whip

barra-bu-m, to spread

ba?-bu-m, to ride

butj-bu-m, to send

del?-bu-m, to open

derret-bu-m, to scratch

dil?-bu-m, to paint

dirrim-bu-m, to light

dirrim-bak-bu-m, to light a big fire

dol?-bu-m, to block

duk-bu-m, to crack

durlum-bu-m, to cover

garay?-bu-m, to laugh at

gingla-bu-m, to be sorry for

jit-bu-m, to hurt

jiw/uk-bu-m, to build

jong-bu-m, to stretch

jum-bu-m, to extinguish

jun-bu-m, to miss

larr?-bu-m, to stop

lit-bu-m, to sew  
luk-bu-m, to follow  
ma(w?)-bu-m, to pull bark off  
mela/eng-bu-m, to catch alight  
mim-bu-m, to close  
ngum-bu-m, to cook  
wek-bu-m, to make a fire  
we/irriyn-bu-m, to sing someone

DW only

Intr

bitj-bu-m, to stay  
bugurri-bu-m, to dream

Tr

bok-bu-m, to rub string  
wart-bu-m, to skin

EOB only

Intr

bit-bu-m, to flower

Tr

bugut-bu-m  
dirrip-bu-m  
wik-bu-m

Irregular -m Conjugation Members

la-m, to spear

Intr

girliyn-la-m, to line up

Tr

dit-la-m, to pinch  
gi-la-m, to water  
jat-la-m, to poke  
jitj-la-m, to point  
mu-la-m, to have intercourse

DW only

Intr

bok-la-m, to rub string (irr)

-y Conjugation

na-y, to see no-y, to burn wo-y, to give

-na-y Conjugation

let-na-y, to look after

mitj-na-y, to know

-wo-y Conjugation

Intr

DW only

bil-wo-y, to smell

Tr

gundi-wo-y, to laugh

mal-wo-y, to poison

ngitj-wo-y, to ask

ngoni-wo-y, to talk to someone

ngul-wo-y, to feed

walng?-wo-y, to hang out

yak-wo-y, to lie to

-yn Conjugation

Intr

dum-ba-yi-yn, to watch for

gel-ngayk-mi-yi-yn, to be married gundi-yi-yn, to play

jatbak-gayi-yn, to walk with a walking stick

mek-bula-yi-yn, to be surprised mugayi-yn, to show off

muk-wayi-yn, to show off

ngurrak-ji-yn, to be full

warli-yn, to call out

warri-yn, to be no good

wayi-yn, to return

wiji-yn, to break

wul-nayi-yn, to turn into



## -ngi Conjugation

ga-ngi, to take, to have

### Intr

barrak-ga-ngi, to spread

barrarrak-ga-ngi, to shine

dal-ga-ngi, to float

man-ga-ngi, to get lost

### Tr

barn-ga-ngi, to dig

buk-ga-ngi, to hunt

jabajak-ga-ngi, to sneak up on

lu-ka-ngi, to light

mawiyn?-ga-ngi, to roll over

way?-ga-ngi, to lift

wirriyn?-ga-ngi, to take someone for a walk

yak-ga-ngi, to visit

EOB only

### Tr

gurditj-ga-ngi, to turn around

yila?-ga-ngi, to move

j-ang, to stand [EOB only]

## -j-ang Conjugation

### Intr

barlng?-j-ang, to stick

bep-j-ang, to be stuck

gulu-j-ang, to stand

gut-j-ang, to get up

jap-j-ang, to lie knees up

jul?-j-ang, to go down

juluk-j-ang, to spill

jup-j-ang, to stand out of

jurlurl?-j-ang, to bog

warlmi-j-ang, to hide

Tr

ba-j-ang look for

yu-ng, to lie

Intr

barra-yu-ng, to lie everywhere

duwak-yu-ng, to lie across

mawiyn?-yu-ng, to turn over

DW only

Intr

bugurri-yu-ng, to dream

mi, to get

Intr

ding-mi, to get caught up

larl-mi, to feel cold

li-mi, to jump

morrol-mi, to be ashamed

multji-mi, to be afraid

Tr

bil-mi, to smell

buk-dayn?-mi, to strangle

bul?-mi, to open

dayn?-mi, to cut

gardul-mi, to roast

gulu-mi, to nurse, pat

me?-mi, to stick

mok-mi, to steal

mulmek-mi, to like

ngal?-mi, to get up/out

ngarndi-mi, to grab

watjitj-mi, to drop

wik-mi, to beget

wuk-mi, to carry

wul-mi, to suck blood

wul?wul-mi, to ache

yirr?-mi, to pull

yurr-mi, to pull

DW only

Tr

lala?-mi, to tear

EOB only

Tr

lorr?-mi, to tear

mek-mi, to like

-0 Conjugation

dokorri, to feel cold

gorri, to break

windi, to hang out

wuli, to rain

ji-yi, to do, to say

dang?-ji-yi, to click one's tongue

DW only

bil?-ji-yi, to poke one's tongue out

ngunji-yi, to talk

wu-yi, to climb

ju-yi, to defecate

jim, to come

nyim, to enter

burluk-jim, to come across

dirri?-jim, to come crawling

gurditj-jim, to come around

larl-jim, to become cold

li(?)li-jim, to come running

ngal?-jim, to come up

yirr?-jim, to come undone

DW only

Intr

lala?-jim, to tear

EOB only

Intr

lorr?-jim, to tear

yang, to go

burluk-yang, to go across

dirri?-yang, to crawl

gurditj-yang, to go around

mawiyn?-yang, to roll over

mok-yang, to run away

wirriyn?-yang, to walk around

EOB only

yila?-yang, to move

ni, to sit

burluk-ni, to cross

jul?-ni, to go down

ngal?-ni, to come up

be, to bite

malak-li, to dance

giyak-li, to sweat

giyak-bu-k, to sweat

li-yn, to fall

DW only

bi-yn, to dig for yams

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