

Warrwa, traditionally spoken in the Derby region of West Kimberley, Western Australia, is an endangered language, with just two full speakers. It is a non-Pama-Nyungan language, one of approximately a dozen members of the Nyulnyulan family; it belongs to the western branch. Phonologically it is typical of an Australian language, distinguishing seventeen consonants and three vowels, each with contrastive length. Two types of verbal construction are distinguished, simple and compound. Simple verbs consist of an inflecting verb root which carries pronominal prefixes cross-referencing the subject and indicating tense, and various aspectual suffixes and pronominal enclitics cross-reference the object and indirect object. Compound verbs consist of an invariant preverb followed by an inflecting simple verb. Noun classes are not distinguished in *Warrwa* (or in any other Nyulnyulan language), and case-relations are marked by postpositions. In the ideolect of one of the remaining speakers a few body part nominals take pronominal prefixes cross-referencing the possessor of the body part; for the other speaker this system has been lost entirely. As in other Nyulnyulan languages, free pronouns distinguish four persons, 1, 1+2, 2, and 3 and two numbers, minimal and augmented.

The sketch is based primarily on elicited and textual material gathered by the author during his 1992 field trip. William McGregor is the author of *A functional grammar of Gooniyandi* (Amsterdam: John Benjamins, 1990), and a number of journal articles on that language; he is also author of *Gunin/Kwini*, volume 11 in this series. He currently holds an Australian Research Council fellowship in linguistics at the University of Melbourne.

Warrwa

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ABBREVIATIONS

The following abbreviations are used:

ABL — ablative	INTER — interrogative
ACC — accusative	IRR — irrealis
ADV — adverbialiser	LOC — locative
ALL — allative	min — minimal number
APP — applicative	NOM — nominative
ASSOC — associated with	NP — nominal phrase
aug — augmented number	OBL — oblique
AUG — augmented number prefix	PA — past tense
C — consonant	PER — perlative
CHAR — characteristic	PL — plural postposition
COMIT — comitative	PP — postpositional phrase
CONT — continuous	PRES — present tense
DAT — dative	PRO — pronominal
DU — dual	redup — reduplicated
EMP — emphatic enclitic	REF — reflexive/reciprocal
ERG — ergative	REP — repeatedly
GEN — general	SEM — semblative
HABIT — habitual	SEQ — sequential
INDEF — indefinite	TR — transitive marker
INST — instrumental	V — vowel

The numerals 1, 2, and 3 denote the first second and third persons respectively in pronouns; 1&2 designates the combination of first and second persons (i.e. what is traditionally called first person inclusive); and inflecting verb roots are cited in all capitals (e.g. -MA 'put').

An dagger following a word indicates that it is attested in one of Capell's writings as a Warrwa word, but not in my own corpus.

The following conventions have been used in transcribing the texts and examples from texts: non-phonemic length in word final vowels is indicated by one or more colons, the number impressionistically suggesting its duration; the end of an intonation contour is marked by a comma, even where it occurs at the end of a sentence; and a semi-colon indicates a brief period of glottal occlusion, which is followed by more material on the same intonation contour. In examples and texts, inflecting verbs are not normally divided into morphemes (because of their morphological complexity); rather, they are glossed as separate full words according to their particular sense in the context.

0. Introduction

0.1. Warrwa and neighbouring languages¹

Warrwa² is an Australian Aboriginal language traditionally spoken on the eastern side of King Sound, in the vicinity of the present township of Derby in the Western Kimberley, Western Australia (see map on page 6 below and Tindale 1974:259 for further details). It is a non-Pama-Nyungan language belonging to the Eastern group of the Nyulnyulan family (Stokes & McGregor 1989).

Arthur Capell was the first linguist to distinguish the Nyulnyulan languages as a group distinct from the neighbouring languages. Capell's classification was typological, not genetic, and he distinguished them as Dampier Land "prefixing languages without noun classification" (1940:244): they show various prefixes to the verb (and in some languages to nouns) indicating the person and number of the "subject" (or possessor in the case of nouns), and no noun classes. The first parameter distinguishes them from the Pama-Nyungan languages to the south, which are entirely suffixing; the second distinguishes them from the Worrorran languages to the north, which show noun classes (see e.g. McGregor 1993a:24). As Capell also pointed out, these languages show lexical commonalities which distinguish them from their neighbours.

During the 1960s Geoffrey O'Grady undertook extensive lexicostatistical investigations of the languages of Australia, and according to the lexicostatistical criteria he adopted, the Dampier Land languages constituted a distinct family of four languages and a number of dialects; no subgroups were, however, identified (O'Grady, Voegelin & Voegelin 1966:35-36; see also Oates & Oates 1970:43, and Oates 1975:58-61).

More recently, Bronwyn Stokes and myself have engaged in historical and comparative studies of the family (Stokes & McGregor 1989). We have proposed that the approximately a dozen named linguistic varieties which constitute the family belong to two primary groups, the Eastern and Western Nyulnyulan languages. The Eastern group comprises Warrwa, Nyikina, Yawuru and Jukun; the Western, Nyulnyul, Jabirjabir, Bardi, Jawi and possibly Nimanburru and Ngumbarl as well (although there is inadequate

¹ My fieldwork on Warrwa was supported by a grant from the Australian Research Council (Grant A58930745). The analysis and writing up of this description has been facilitated by an ARC Research Fellowship (A9324000) held at the University of Melbourne. I am especially grateful to Bronwyn Stokes, who read the entire draft and commented usefully both on the analysis and on specific details of Warrwa grammar and lexicography; she is also thanked for generously sharing her Warrwa data with me, and for many discussions about the language. I have also had the benefit of presenting the description to a class in Australian Aboriginal linguistics during the first semester 1994; their contribution to the analysis, and their keeping me on target with the analysis is gratefully acknowledged. I remain, however, responsible for all remaining inadequacies and errors in the analysis. My greatest debt is, of course, to Maudie Leonard and Freddy Marka, who willingly sacrificed their time to teach me their language, and whose enthusiasm has been a great source of encouragement and inspiration. It is hoped that this sketch will be of interest not just to professional linguists, but may also be of interest to younger Warrwa people, and provide them with a reasonably non-technical description of their language.

² Various other spellings of the language name have been employed including Warwa, Warwai, Warrwi, Wa:rwā, Warwar (McGregor 1988:75). Although I have only heard the language name pronounced as Warrwa, according to Tindale 1974:259 Waruwa (with a glide instead of a tap) is a valid alternative, used by speakers of the language. Tindale also indicates that the neighbouring Unggumi people refer to the Warrwa as *Kolaruma* (probably /kolarruma/), where *kularr* means 'west' in many of the languages of the area.

information on the last two languages to permit certain classification).³ Warrwa and Nyikina are very closely related, and the available evidence suggests that they form a subgroup together, as distinct from the more distantly related Yawuru and Jukun. (Contrary to Capell 1940:412ff, however, they do not appear to be closely enough related to regard as dialects of a single language.)



Approximate traditional locations of the Nyulnyulan and nearby languages

³ As an examination of the map on this page reveals, the two groups are not oriented on an east-west axis. However, speakers of the various languages tend to regard the orientation in these terms, the Eastern languages being primarily Kimberley proper languages, the Western, Dampier Land languages.

To date no genetic relationships have been established between the Nyulnyulan and other nearby (or distant) language families. Warrwa itself abutted the Worrorran family, having as neighbours Unggumi to the east and Unggarrangu to the north. Some characteristics of the language appear to have been borrowed from these nearby languages.

0.2. Fieldwork situation

I began recording Warrwa in 1985 with one hour of lexical elicitation. For various reasons it was not until 1990 that I recorded any further information on the language, and this was only another hour of elicitation, in which I focused on the means available for expressing actions done on and by parts of the human body. My intensive work on the language began on my 1992 field trip, during which I recorded ten or so hours of elicitation; a fairly extensive basic wordlist was gathered, as well as a reasonably broad corpus of grammatical information. Half a dozen or so texts were also recorded (including texts from both full speakers of the language), around half of which were transcribed and translated with the assistance of the narrator. (It is planned to transcribe the remaining texts in late 1994.)

During a weekend stay in Derby in May 1994 it was possible to check over with Maudie Leonard (one of the remaining speakers of the language) some analytical and descriptive issues arising from the preparation of this sketch. Needless to say, numerous gaps still remain. Further field trips are planned for the 1994-1996 triennium, and a detailed descriptive grammar will eventually appear. In the meantime, this interim sketch should provide some idea of the grammatical structure of the language, and its major typological characteristics.

0.3. Sociolinguistic setting

Today, only two full speakers of Warrwa remain, Maudie Lennard and Freddy Marka, both of whom are in their 60s. They were both reared on Meda Station, located to the east of Derby, and both now live in Karmulinunga Reserve in Derby. As far as I can ascertain, Warrwa is not spoken regularly by either speaker, and both speak some form of Aboriginal English in the bulk of their social interactions. Whether there are any part speakers is not known for certain; it is not unlikely, however, that there may be up to a dozen or so, possibly including Maudie Lennard's children.

Warrwa is thus effectively dead. Most probably this situation arose as a result of language death due to the decimation of the community of speakers during the last two decades of the nineteenth century. Being traditionally located around the Derby region, it is likely that the Warrwa people suffered heavy casualties during the early days of the establishment of Derby and the surrounding pastoral properties (during the 1880s) and as a result of massacres by police and pastoralists, reprisals for Jandamarra's (Pigeon's) killing of four or five white men in the early 1890s (see e.g. Pedersen 1984 for details); they may well also have suffered significantly from introduced diseases such as venereal disease and leprosy, which were rife, probably from late last century. Thus, even by the late 1930s numbers were so low that Capell was able to find just a few speakers of the language (Capell 1952/1953:351). Little historical

information is available, largely because no missionaries were stationed in the area, and in those days few other whites displayed much interest in such matters.

During the last couple of years both full speakers of the language appear to have become increasingly aware of the imminent death of Warrwa, and the fact that they alone are the repositories of significant information about the language. This has translated into a concern that the language be recorded before it passes, and it is in a large part their enthusiasm which motivated me to begin serious research into the language.

There are certain differences in the Warrwa spoken by the surviving speakers (see §2.2.1 below). It would seem unlikely that these reflect dialectal differences (since both speakers come from the same region);⁴ more likely they reflect differences in the patterns of learning of the language in the sociolinguistic situation in which the speakers grew up. (Similar differences are found in the speech of remaining speakers of other moribund languages such as Nyulnyul.)

0.4. Traditional culture of the Warrwa

Very little information is available on the traditional culture of the Warrwa. Even as early an investigator as Capell recorded little on traditional life during his 1939 field trip (Capell 1952/1953). The only practice he reports on in any detail is the Warrwa funerary rite; it is worth quoting his exposition in full, particularly since it contains statements made by Warrwa speakers:

The burial rites among the Warwa [sic] consisted of three stages, (i) tree-platform burial, (ii) after which the bundle of bones, called *gumin*, was placed on antbed to be cleaned, and finally (iii) they were buried, but the hair was preserved. A Warwa [sic] informant summarized the old usage thus:

Gandirin gana wa:ra guḏ ḡindandjāri. Warandi gandirin,
Platform to take him-who-had-died. Remove platform,
djena:wuru wa:ra. Wiril warandianu, ḡaio i:bala,
(to) antbed take. Hair bring-me, I father,
wa:raḡan' ḡaio. Djuḡḡan ḡambandjina, ḡanaḡhama
I-will-take-charge. I-twisted (it) myself, I-shall-tell
laḡaḡa ḡaio
true I

There were various mourning goups, whose members, however, I am unable to define. One mob was called *djāgin*, *buḡumiri jāgin*, "big mob not eat",⁵ which observed food taboos, its diet being limited to water, fish and honey, apparently over several years. Kangaroo was disallowed: "dead man bin spear him kangaroo." The Warwa [sic] informant said:

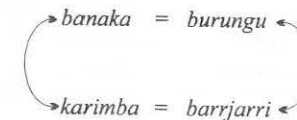
4 Tindale 1974:259 says that the Nyikina people distinguish between two dialects of Warrwa, "Little Warrwa" spoken in the west, and "Big Warrwa" spoken in the east, around Meda station (where both speakers were born). I have been unable to verify this claim.

5 According to Bronwyn Stokes (pers.comm.), *jakin* refers to a meat taboo placed on certain relatives of a dead person; *buḡumiri* is most likely *bujumiri* 'many, much'.

Walaia iḡandjanu mandja, djarmuḡa mandja.
honey is-to-me much fish much.

and he added *bilir jāb ḡindan, waḡia ḡindan*, "the spirit goes away, it goes west," agreeing with the Njigina [sic] and interpreting *gular* (W. *waḡia*), in the same way. In point of fact the territorial extensions of the Njigina have nearly all been from west to east, so that this home of the dead may, as in the case of other peoples, be an indicator of the old tribal home. Certain relatives of the dead man covered themselves with mud and avoided the corpse. These were called *galgara*.⁶ Another group wore a special string (*gunduwundu*) about their necks and were called *madu*. (Capell 1952/1953:359.)

Like other Australian Aboriginal societies, Warrwa society was primarily kin-based: the tenor of interpersonal interaction was to a large extent regulated by the kin relationship (genealogical or imputed) between the interactants. Little is presently known about the kinship system of the Warrwa; however, it is planned to investigate it in detail on subsequent field trips. It is known that the Warrwa — like their southern neighbours the Nyikina (but unlike the northern and eastern Worrorran neighbours who distinguished moieties) — recognised four sections or "skins", as shown in the diagram below. Sections regulated marriage and descent (and more generally can be used to determine the appropriate classificatory kin relationship between two individuals not genealogically related): intermarrying sections are connected by the = sign, and the arrows represent sections related as mother to child. Thus, for example, a *banaka* woman would ideally marry a *burungu* man and their children would be *karimba*.



The seven texts I recorded in 1992 include one mythological text, an account of how it came about that the emu cannot fly. (Bronwyn Stokes has recorded half a dozen or so other Warrwa myths.)

0.5. Previous work on Warrwa

Very little previous work has been done on the language or the culture of the Warrwa people, and the present sketch is the most detailed description presently available of its grammar. A 500 odd item wordlist appears in McGregor forthcoming b.

Arthur Capell seems to have been the first linguist to investigate the language.⁷ He apparently worked on it off and on over a three month period during his extensive 1939 field trip through the Kimberley and Arnhem Land. Altogether he spent only a very brief time on the language, and collected very basic

6 As Bronwyn Stokes observes (pers.comm.), this word now appears to mean 'widow'.

7 Even the remarkable Daisy Bates, who collected and compiled vocabularies for many languages of Western Australia — including nearby languages such as Gooniyandi, Nyulnyul, Karajarri, etc. — in the early days of the twentieth century, appears not to have gathered any Warrwa words.

information (Nyikina was his primary focus during his time in the area). Very little information on Warrwa appears in any of Capell's publications. Capell 1940 has a few verb paradigms, some very basic grammatical information, a relatively brief wordlist; in addition, a couple of short textlets (see §0.4 above) and some very skimpy socio-cultural information may be found in Capell 1952/1953.

The next person to gather information on the language was the anthropologist Norman Tindale, who recorded around fifty words in 1953 (Tindale 1952-1954). In the 1960s Nora Kerr gathered just three or four words in the language (Kerr nd). This was followed, in the late 1970s, by more extensive study by Bronwyn Stokes, who recorded a substantial body of information on the language, including elicited words and sentences, as well as texts, all from Maudie Lennard.

1. Phonology

1.1. Phoneme inventory

Warrwa shows an inventory of consonant phonemes typical of an Australian language, and identical with the inventory for all other Nyulnyulan languages — see Table 1. Five places of articulation are distinguished for stops and nasals, and three for the laterals, corresponding to the non-peripheral points of articulation. Two rhotic segments are distinguished, the apico-alveolar tap /r/ and the apico-post-alveolar glide /r/.

	Bilabial	Apico-alveolar	Apico-post-alveolar	Lamino-palatal	Dorso-velar
Stops	<i>b</i>	<i>d</i>	<i>rd</i>	<i>j</i>	<i>k</i>
Nasals	<i>m</i>	<i>n</i>	<i>rn</i>	<i>ny</i>	<i>ng</i>
Laterals		<i>l</i>	<i>rl</i>	<i>ly</i>	
Tap		<i>rr</i>			
Glides	<i>w</i>		<i>r</i>	<i>y</i>	

Table 1: *Warrwa* consonants

As in most other Nyulnyulan languages, there are just three vowels: *a*, *i*, and *u*; length appears to be contrastive for all three. Although Capell 1952/1953 also distinguished the mid vowels *e* and *o*, these are almost certainly allophones of *i* and *u* respectively.

Because the phoneme inventory is so typical, and the realisations of the phonemes so predictable, we do not provide justification of the phonemic status of any of the contrasts, or discussion of their phonetic realisations. (Detailed discussion of the phonology of Nyikina and Yawuru may be found in Stokes 1982 and Hosokawa 1991 respectively; much of what they say carries over to Warrwa.)

1.2. Phonotactics

Almost all free words in Warrwa begin with a consonant, and the majority also end with a vowel. The first condition is stronger than the second, and there are only around a dozen or so known words which appear to begin with vowels. Each of the three short vowels is attested word initially, but no long vowel is attested in this position.

All consonants contrast intervocalically. However, there are various restrictions in other environments. The liquids /l/ and /r/ appear not to be permissible word initially (as in many nearby languages, including Gooniyandi (McGregor 1990:71), Nyulnyul (McGregor forthcoming a), Gunin (McGregor 1993a:18), Ungarinyin (Rumsey 1982:14)), and all apicals are reasonably uncommon in this position (except in inflected forms of verbs). It is not unlikely that the contrast in the apical series between alveolar and post-alveolar articulation is not maintained in word initial position, as appears to be the case in many (but not all) nearby languages; however, this cannot be asserted with certainty in the absence of more careful and extensive field investigation.

The tendency for words to end in vowels is rather weaker than their tendency to begin with consonants: approximately 68% of roots end in vowels. The proportions differ significantly, however, for preverbs as against words of other classes: only 44% of preverbs are vowel final, while 75% of roots of other classes end in vowels. Liquids and nasals are the most common final consonants, each accounting for approximately 35% of final consonants; /r/ is the most common final consonant, accounting for 20% of the total finals. Stops are somewhat less frequent root finally, accounting for 23% of the total final consonants. Glides account for the remaining 7%: /y/ for 5% and /r/ for 2%; /w/ is not attested word finally. (Interestingly, there are some differences in the frequencies of many consonants in final position depending on the class of word, preverbs patterning differently from other words.)

Intramorphemic consonant clusters occur. Most of these occur between vowels. The only known exceptions are the initial sequence /kw/, as in *kwiina* 'big, large', and the final sequences /r-n/, as in *darrndarrn* 'donkey' and /r-b/, as in *raarrb* 'sweep'. All three sequences are quite rare by dictionary count. Intervocalic consonant clusters are mainly two-member; there are just two known exceptions, the sequence /l-m-b/ and the sequence /l-ng-k/, which are each attested in only a handful of words: *yalmban* 'south' illustrates the first sequence, *jalngkangurru* 'doctor' illustrates the second.

As Table 2 shows, a fair number of two member intervocalic consonant clusters are permitted within Warrwa lexemes; the table does not include clusters across the boundaries of reduplicated formatives, which actually resemble more closely the clusters found at morpheme boundaries.

First member

	b	d	rd	j	k	m	n	rn	ny	ng	l	rl	ly	rr	w	r	y
b				X		X	X	X	X	X	X			X			
d							X										
rd								X									
j									X		X		X	X			
k		X		X			X	X	X	X	X		X	X			
m								X			X			X			
n																	
rn																	
ny																	
ng								X			X			X			
l		X															
rl																	
ly																	
rr																	
w											X			X		X	X
r																	
y																	

Table 2: Intervocalic consonant clusters in Warrwa lexemes

The permitted consonant clusters in Warrwa are strikingly similar to the permitted consonant clusters in other Kimberley languages (see e.g. McGregor 1993a:19-20 for Gunin and McGregor 1990:74 for Gooniyandi). The most frequent consonant clusters are homorganic nasal-stop cluster, which occur at all places of articulation. For other consonant clusters it appears that the second member is normally peripheral, and occasionally laminal; it is almost never apical (the homorganic stop lateral cluster /dl/ being the only exception). On the other hand, the first member shows a tendency to be apical or laminal. Generalisations can also be made in terms of manner of articulation. The first member is normally a liquid or nasal, rarely a stop or glide. The second member is normally a stop, less frequently a nasal, and very infrequently a glide (the peripheral /w/ being the only glide that occurs in this position).

These facts may be described in terms of a hierarchy of increasing sonorance, and a hierarchy of places of articulation. The sonorance hierarchy is as follows: stop, nasal, liquid, glide. There is a stipulation to the effect that the first member must be at least as sonorant as the second (this generalisation is almost exceptionless). The place hierarchy is peripheral, laminal, apical. The first

member of a consonant cluster may not be lower on this hierarchy than the second. Furthermore, given a consonant cluster in which the consonants show the same places on this hierarchy, they are normally homorganic — e.g. if both consonants are apical, both are either alveolar or post-alveolar.

Free lexical roots (i.e. all roots with the exception of inflecting verbs) have between one and five syllables; nearly eighty percent have two or three syllables. There are differences in the size of lexical roots according to their class; in particular, as in many nearby languages, preverbs tend to have fewer syllables than words of other classes. (The few preverbs with more than three syllables are in fact reduplications of meaningless formatives.) The percentages of roots with one to five syllables are as follows:

No. of syllables	1	2	3	4	5
Preverbs	27%	58%	13%	2%	0%
Non-preverbs	3%	47%	33%	16%	2%
Overall	8%	49%	29%	13%	1%

Monosyllables have the shape CV: or CV(:)C; there is a single exception, the conjunction *aa* 'and'. Most monosyllabic preverbs are of the form CV(:)C, with only a few with the form CV:; for lexical items of other classes, however, CV: monosyllables predominate (although they are of course quite rare in comparison with polysyllabic lexemes).

1.3. Stress

Stress placement in monomorphemic words appears to be predictable, and falls on the initial syllable. For example: *'kinya* 'this', *'jabawu* 'grandfather', and *'murrkulyi* 'work'. Vowel initial roots also show initial stress: *'uba* 'little', *'ibal* 'father', and *'iri* 'woman'. Few monomorphemic words are more than three syllables in length, and those that are generally also have a second stressed syllable on the third syllable, as in *'wana'ngarri* 'stone', *'balngany'jina* 'thigh', and *'bulu'mana* 'bullock'.

Exceptions to these patterns occur in words which consist of the reduplication of meaningless formatives. Such words are normally treated as two phonological words for the purpose of stress assignment, and stress falls in predictable ways onto the separate formatives. For example: *'kuny'kuny* 'brains' and *'buk'buk* 'float'; of course, when the formative is bisyllabic, both methods of stress assignment agree, as in *'mala'mala* 'cheek'.

It is beyond the scope of this description to deal with the placement of stress in polymorphemic words. Suffice it to remark that some bound morphemes appear to form a phonological word with the root to which they are attached, the whole form being stressed as a single word. Other bound morphemes — particularly bisyllabic ones — appear to be independently stressed, and their attachment to a given lexeme has no effect on its stress pattern.

2. Morphology

2.1. Parts of speech in Warrwa

The following word classes can be distinguished in Warrwa:

NOMINALS: free lexical roots designating things and qualities, and which are frequently found with postpositions attached to them; the class of nominals appears to be open (§2.2).

PRONOMINALS: indexicals which mark person and number of the referent, addressee, and/or speaker; these form a small closed class (§2.3).

ADVERBIALS: words which indicate circumstantial type meanings such as time, place and manner; this class appears to be closed, and not too large (§2.4).

PARTICLES: non-inflecting words which may contain full clauses in their scope; only a handful of particles have so far been identified (§2.5).

PREVERBS: verbal lexemes which take few inflections (all of which are suffixes) and which normally occur with inflecting verbs, which they typically precede; they convey the bulk of the lexical meaning in preverb-inflecting verb constructions. Preverbs show distinctive phonotactic patterns which separate them from words of other classes.

INFLECTING VERBS: verb roots which take inflections according to the person and number of the subject and object (if transitive), tense, mood, aspect, etc.; there are at least fifty words in this class (§2.8.2.1).

INTERJECTIONS: words which frequently stand alone as complete utterances; these form a small closed class (§2.5).

A number of different types of bound morphemes are also found, including nominal and verbal prefixes and suffixes (§2.2 and §2.8), postpositions (§2.6) and enclitics (§2.7).

2.2. Nominal morphology

Nouns are morphologically fairly simple in Warrwa. Noun classes are not distinguished, and nouns do not inflect for case or number; instead, "case" relationships, and sometimes number, are marked by bound postpositions which normally occur one per NP and attached to the first word of the phrase (see Rumsey 1982:57-59 and McGregor 1990:173-175 on the differences between suffixes and postpositions).

Nouns and adjectives are not formally distinguished in Warrwa. Most nominal roots may function referentially to designate an entity, and attributively, to designate a quality or property; the difference depends on the function of the nominal in its phrase, rather than on its subclass. Almost all nominal roots have the privilege of free occurrence; there are just a few that do not, at least in the idiolect of one of the speakers. This small class of bound nouns is discussed in the following section. Then in §2.2.2 we discuss the closed subclass of determiners. As far as I can tell, there are no other linguistically significant subclasses of nominals in Warrwa — there seems, for example, (at least on the basis of present evidence)

to be no formal properties peculiar to kinterms, number words, or personal names which warrant separating them into subclasses (as is the case, for instance in Gunin (McGregor 1993a:30-31). Finally, in §2.2.3 the known stem forming suffixes are discussed.

2.2.1. Bound nouns

According to Capell 1952/1953:452, Warrwa resembles languages of the Western branch of the Nyulnyulan family in that it has a set of pronominal prefixes which attach to certain nouns, mostly terms for parts of the body, and indicate the person and number of the possessor. (McGregor in press contains a detailed description of the nominal prefixes in Nyulnyul.) This system is, however, barely in evidence in today's Warrwa. One speaker does not use it at all — instead, she invariably uses the oblique form of the free pronoun together with an invariant form of the nominal. This has an initial *ni-* for those words which take pronominal prefixes in languages in which the system is still viable, *ni-* being the third person singular prefix in these languages. It occurs in a very attenuated form in the other's speech, the following being the only known nominals which take the prefixes: *-(u)ngu* 'stomach', *-lirr* 'mouth', *-liwa* 'ear', *-alma* 'head', *-mala* 'hand', *-(m)barrma* 'armpit', *-midi* 'leg', *-(ng)kurinykuriny* 'navel', *-yambala* 'foot', *-yangalany* 'tongue' and *-nyji* 'back'.⁸ However, none of these nominals appears to invariably take pronominal prefixes, even in the speech of the speaker who does use the system. Thus one finds (in the latter's speech) both *niyambala* 'his/her foot' and *ngayambala* 'my foot' used to refer to the speaker's feet, the former in combination with an oblique pronominal; and for some of the nominals (e.g. *-nyji* 'back') only some person-number categories are represented by prefixes, the others being marked by means of independent possessive pronouns (together with the *ni-* form of the nominal). In fact, (somewhat surprisingly) it appears that the most likely environments in which a prefixing nominal will actually be prefixing are in citation and in attributive clauses which indicate a property of the referent part; furthermore, it is more likely that a singular possessor will be cross-referenced by a prefix than a non-singular one. Whether or not this alternation in prefixing is a consequence of language attrition is not known; it is quite conceivable that it is not, and that prefixing of the noun marks its greater inalienability in the particular context, as is the case in Nyulnyul and various northern Kimberley languages (McGregor in press). However, the environment of occurrence of prefixing seems to militate against this suggestion, as the citation context would presumably engender a greater degree of alienability.

The pronominal prefixes, as far as they are known, are as shown in Table 3 (see §2.3 below for explanation of the categories minimal, augmented and 1&2). Note that some allomorphy is shown; it is beyond the scope of this description to account for the distribution of the allomorphs, and to attempt to account for the occurring phonological forms in terms of single underlying forms and rules of internal sandhi.

⁸ This small number of nouns does not represent any major inadequacy in my body part noun corpus, as I took pains to elicit a substantial set of terms from this domain, covering the entire range of parts which I have also covered in Nyulnyul. By comparison, in Nyulnyul there are at least fifty prefixing nouns in a similar sized corpus.

	minimal	augmented
1	<i>nga-</i>	<i>yarr- ~ ngarr-</i>
1&2	<i>ya- ~ ngarr-</i>	<i>yarr- ~ ngarr-</i>
2	<i>nyi- ~ nya-</i>	<i>kurr- ~ kurri-</i>
3	<i>ni-</i>	<i>yirri- ~ yurr-</i>

Table 3: *Pronominal prefixes to Warrwa nominals*

It will be observed that there are three distinct non-singular "first person" forms, *ya-*, *yarr-* and *ngarr-*. The first form *ya-* specifically indicates the speaker-hearer dyad (1&2), whereas *yarr-* indicates the dual exclusive, and both plural inclusive and exclusive; the third form, *ngarr-* is attested in all non-singular "first person" forms. The system for pronominal prefixes to nouns is thus different from the system for free pronouns (for which see §2.3 below).⁹

In addition to these prefixing nouns there are just a few nouns for parts of the body which take pronominal suffixes indicating the person and number of the possessor of the part. The three known nouns are: *ngunii-* 'nose', *kurndi-* 'shoulder' and *balngany-* 'thigh'. Just four suffixes are attested:

<i>-yanu ~ -janu</i>	1 singular; 'my'
<i>-yiya ~ -jiya</i>	2 singular; 'your'
<i>-yina ~ -jina</i>	3 singular, and also 1 non-singular and 2 non-singular; 'his, hers, its, ours, yours'
<i>-yirra</i>	3 plural; 'their'

where the forms with initial stops are found following root-final stops and nasals; the glide initial forms are found elsewhere. These forms are perspicuously related to the oblique forms of the free pronouns (see page 20 below).

There is no distinct form for non-singular numbers of any person other than the third person, and the "unmarked" third person singular form is used for non-third person non-singular categories. Interestingly, the closely related Nyikina — in which pronominal prefixing of nominals has disappeared completely — shows productive possessive suffixing of inalienably possessed items and kinterms, at least in the Big Nyikina dialect (Stokes 1982:49-52). Furthermore, the forms are precisely identical with the above forms, and show the same alternation of palatal stop and glide. However, in Big Nyikina the corresponding number system is a minimal-augmented one, and there are distinct forms for 1 augmented,

⁹ The *ngarr-* prefix is rather unexpected, both by virtue of its range of meanings, and because it has no counterpart in the pronominal prefixes to nominals in the other Nyulnyulan languages (such as Nyulnyul) which show such a system. There would seem to be two main possibilities: The prefix may be formed from the 1 minimal form *nga-* by the addition of the augment *-rr* (on which see §2.8.2.2.1 below); this might account for its wide range of meanings. Alternatively it might have been borrowed from the Worrorran languages to the north, where *ngarr-* is a first person non-singular inclusive prefix (see e.g. McGregor 1993a:26). Furthermore, it remains unclear whether this borrowing is recent, and the forms involving *ngarr-* reflect transfer from Ngarinyin (in which the speaker is fluent), or whether they reflect a borrowing at a more distant point in the past, *ngarr-* being a part of the traditional Warrwa system.

1&2 minimal, 1&2 augmented and 2 augmented.

2.2.2. Determiners

2.2.2.1. Definite determiners

It appears that Warrwa demonstratives distinguish two degrees of distance, as follows:

<i>nyingka</i>	'this'
<i>bingka</i>	'that'

However, the available data is somewhat limited, and it is possible that there are further distinctions (cf. Hosokawa 1991:321 who indicates that there are three degrees of distance in Yawuru demonstratives). Both of these demonstratives frequently occur in the first position in NPs (§3.1), followed by the nominal head of the phrase; they may also occur as the sole member of an NP. In either event, they are frequently followed by postpositions. (See also §2.4 below for deictic adverbials.)

In addition to these demonstrative determiners, Warrwa has an endophoric determiner, that is, a determiner which does not point directly at something in the external referent world, locating it in terms of a spatial deictic centre, but rather points to something in the linguistic context, usually something that has been previously mentioned. This endophoric determiner is *kinya* 'this, that', which, as the gloss indicates, is non-specific as to the distance of the referent, as appears to be the case in Nyikina (Stokes 1982:157) — compare the situation in Bunuba and Gooniyandi where there are two endophoric determiners, which distinguish roughly between 'this (recently mentioned)' and 'that (mentioned some time ago)' (Rumsey forthcoming, McGregor 1990:144-145). It will be observed that this determiner is formally identical with the free third person singular pronoun (§2.3); however, that this is a case of homophony follows from the fact that only the pronominal shows a distinct oblique form, unrelated to the form *kinya*.

Often *kinya* 'this, that' refers to a previously mentioned entity — normally a person — in the discourse. It thus typically occurs in initial position in an NP (§3.1), where it takes the case-marking postpositions for that phrase. However, it may also refer to something else other than a material or physical entity, in which case it normally occurs as the sole constituent of an NP. In narratives, it is frequently followed by one of the ablative postpositions, and conveys the meaning 'then, after that' — see lines (3) and (19) of the text in §4. In such circumstances, *kinya* 'this, that' may designate anything from a single event to an episode (and probably even a full narrative). In addition to this, *kinya* 'this, that' is also employed in reference to places (as in e.g. *kinya-n* [this-LOC] 'there' and *kinyaadiny* 'thereabouts') qualities (as in one text where *kinyaarra* 'thusly' was used to refer anaphorically to the previously mentioned quality 'big').

2.2.2.2. Indefinite determiners

Like many other Australian Aboriginal languages, Warrwa has a set of determiners which are used both as interrogatives and as indefinite markers (Mushin 1993, McGregor 1993a:28-29). They are as follows:

<i>angki</i>	'what', 'which', 'who', 'something', 'someone'
<i>jana</i>	'where', 'somewhere'
<i>bana</i>	'when', 'sometime'

As in other Nyulnyulan languages, but unlike most other Australian Aboriginal languages, a single form, *angki*, is used for both 'who' and 'what' (Hosokawa 1991:337, McGregor forthcoming a). (The variant form *yangki* has been heard, but it appears to be in free variation with *angki*.) *Angki* 'who, what' takes the expected range of postpositions to mark the grammatical relationship of the unknown entity in the clause — e.g. *angki-na* [who-ERG] 'by who' and *angki-yunu* [what-ABL₂] 'why'. The unmarked or absolutive form occurs in the same contexts in which unmarked NPs occur (including as the "subject" of an intransitive and the "object" of a transitive clause).

The locational interrogative *jana* 'where' is employed in its base form — or occasionally followed by the LOC postposition *-n* — in requests of spatial location. It may be followed by the "local" postpositions *-marru* PER, *-ngana* ALL, *-nkawu* ABL₁ in requests of target (PER and ALL) or source (ABL₂) locations for a situation. It is also used as a verbal interrogative, requesting information regarding what activity was undertaken. In this usage, *jana* 'where' is followed by the suffix *-ngkay* CONT and is followed by the inflecting verb *-NGA* 'be', which facts suggest that the interrogative is functioning as a preverb:

- (1) *jana -ngkay mingan*
 where -CONT you:do
 'What are you doing?'

The temporal interrogative *bana* 'when' is barely instanced in the corpus, and is used solely in requests for the temporal location of an event or state. The locative form of the locational interrogative *janan* is also sometimes employed with the meaning 'when'.

2.2.3. Nominal suffixes

As has been mentioned already, Warrwa nominals are morphologically quite simple. There are only a few suffixes which may attach to nominal roots to form new (derived) nominal stems; in addition, there are a very few pronominal suffixes (see §2.2.1 above). The following four morphemes are tentatively classified as nominal suffixes; it is possible, however, that further research will indicate that some (or all) are better regarded as postpositions or enclitics.

- [1] *-kurdany ~ -wudany ~ -wirrany ~ -wurrany* COMIT

These suffixes attach to nominal roots to form nominal stems whose meaning is 'having the referent of the nominal root'. Whether there are four distinct suffixes here, or a single suffix (or two) with these allomorphs is not certain. However, the fact that there appears to be a single common meaning, and that the forms are so closely related, suggests that they are allomorphs of a single morpheme. What factors condition the allomorphs remain unknown. It would appear that they cannot be entirely phonologically

motivated; more likely, they are variants conditioned by the root to which they are attached.

The new nominal stem may function either attributively or referentially. In the first use it indicates some quality or property of another entity, as in *buru-kurdany wila* [ground-COMIT water] 'dirty water',¹⁰ *lakaba-kurdany wamba* [fat-COMIT man] 'fat man' and *wamba-wudany iri* [man-COMIT woman] 'married woman'. In the second, it is used to designate an entity, as in *jalmarra-wudany* [wing-COMIT] 'bird', and *birrki-wirrany* [horn-COMIT] 'bull'.

- [2] *-wurru ~ -kurru* ASSOC

This suffix may be attached to nominals or preverbs, forming a new nominal stem which designates an entity closely associated with the thing or activity referred to by the root. Thus, for example, *kurdii-wurru* [run-ASSOC] was used in describing a racehorse; the prefixing *-yambal-wurru* [foot-ASSOC] refers to 'shoes', as in *nga-yambal-wurru* 'my shoes'. In one instance only the allomorph *-kurru* was encountered, in the word *burr-kurru* 'car', where *burr* is an onomatopoeic word representing the noise made by a motorcar; this may well be a borrowing from Nyikina: in that language the allomorph *-kurru* is found following consonants.

- [3] *-mili* CHAR

Only one instance of this suffix occurs in the corpus, and in this example it is attached to the word *wirrin* 'sick', apparently forming a new nominal stem meaning 'sick person'. Interestingly, Gooniyandi shows the phonologically identical morpheme *-mili* CHAR, which indicates that the nominal to which this suffix is attached is characteristic of the referent entity for the NP.

- [4] *-ngalya* or *-ngarru* SEM

The suffix *-ngalya*, which is instanced only once in my corpus, indicates similarity or resemblance. The nominal so marked is used attributively, to attribute a quality of likeness, in the only available example:

- (2) *kinya iri wamba -ngalya*
 this woman man -SEM
 'This woman is like a man.'

Strangely, this suffix does not occur in Bronwyn Stokes' corpus, where the form *-ngarru* occurs instead:

¹⁰ Bronwyn Stokes has the form *buru-wurdany* (ground-COMIT) 'dirty' in her corpus. Note, however, that as the following examples show the choice between the stop and glide initial forms cannot be conditioned by the phonological environment.

- (3) kinya -na nangkulalmany -jina baalu jamandi -ngarru
 he -ERG he:made:it -3minOBL stick kangaroo -SEM
 'He made a stake like (in the shape of) a jamandi kangaroo.'

2.3. Free pronouns

Like other Nyulnyulan languages, Warrwa shows what has been referred to as an Ilocano type system (Greenberg 1988) in its free pronouns: that is, it distinguishes four person categories — 1, 1&2, 2, and 3 — and three numbers, minimal, augmented and unit augmented (Stokes 1982:151ff, Hosokawa 1991:27-29, McGregor forthcoming a). The suffix or enclitic *-wili*, which also occurs on inflecting verbs (on which see §2.8.2.3.5 below), marks unit augmented (dual) number for all person categories except 1&2, for which no separate unit augmented form exists. Corresponding to each person-number combination are two distinct forms, a nominative (NOM) and an oblique (OBL), as shown in Table 4. As this makes clear, most OBL forms have an initial palatal stop *j* corresponding to an initial palatal glide *y* or velar stop *k* in the NOM form. This may well be a remnant of an earlier case-marking prefix with an initial *j* — and this is supported by comparative evidence from other Nyulnyulan languages (see Stokes & McGregor 1989).

		Minimal	Unit augmented	Augmented
1	NOM	<i>ngayu</i>	<i>yaarra-wili, yarrin-bili†</i>	<i>yaarra, yarrin†</i>
	OBL	<i>ngajamu</i>	<i>jarra-wili</i>	<i>jarra</i>
1&2	NOM	<i>yawu</i>		<i>yaddirr, yarru†</i>
	OBL	<i>jawu, jawukurru†</i>		<i>jaddirr</i>
2	NOM	<i>juwa</i>	<i>kurra-wili, kurrawa-wili†</i>	<i>kurra</i>
	OBL	<i>jiya</i>	<i>jungkarra-wili</i>	<i>jungkarra</i>
3	NOM	<i>kinya</i>	<i>yirra-wili</i>	<i>yirra</i>
	OBL	<i>jina</i>	<i>jirra-wili</i>	<i>jirra</i>

Table 4: Free pronouns of Warrwa

According to Capell 1952/1953:453, the 1&2 minimal oblique form is *djaugoro* (in his orthography) — presumably *jawukurru*; this is not attested in my corpus, where only the shorter form *jawu* occurs. Capell 1952/1953:453 also gives the form *yarrin* for 1 augmented; this does not occur in my corpus, and was rejected by one of the speakers, who suggested it was really the verb form *yarriny* 'we said'. Other differences from Capell 1952/1953:453 include the following: he cites the Warrwa 1&2 augmented forms as *yarru* (not attested in my data) and *yardid* respectively (both phonemicised in my orthography), with retroflexion in the second consonant of the latter form, and a final stop. In my corpus the second consonant is an apico-alveolar stop, and the final one the tap/trill *rr*. Finally, for the

3 augmented form Capell 1952/1953:453 has *nyirmirla* (in my orthography); this is almost certainly not the pronominal, but the demonstrative adverbial *nyin* 'here', together with the number-marking postposition *-rnir/ PL*.

Although Table 4 shows a distinct set of unit augmented pronominals, it may be preferable to treat the pronominal system as making a minimal-augmented contrast, the unit augmented forms being distinguished by the number marking suffix *-wili* DU. For one thing, the forms in the unit augmented column derive from those in the augmented column simply by the addition of this suffix. This analysis would be more convincing if the number-marking suffixes could be shown to be optional; there is, however, no evidence that this is the case, and one of the speakers rejected the use of *kurra* 'you augmented' in reference to two people — actual usage would need to be investigated in order to properly confirm or disconfirm this hypothesis.¹¹

Nominative forms of the pronouns are found in almost all grammatical environments, including in the roles of Actor (subject) and Goal (object), as well as in various "circumstantial" relationships, where they are followed by postpositions such as *-ngana* ALL, *-marru* PER, *-kawu* ABL, etc.. The oblique forms are found primarily in the indication of possessors, as in *ngajanu jamburdu* 'my grandfather'.

2.4. Adverbials

It is possible to distinguish three classes of adverbials on semantic, and perhaps also formal, grounds: spatial adverbials, temporal adverbials and manner adverbials.

[1] Spatial adverbials

A fair number of spatial adverbials are represented in the corpus; these serve to provide information regarding the location, direction, proximity, orientation, extent, and so on, of a situation. Two major types may be identified: cardinals, which employ an absolute reference system, and non-cardinals, which employ a relative reference system.

There are two systems of cardinal adverbials: one which orients according to a horizontal axis, and employs directions which correspond fairly closely to the compass directions (the precise ranges of reference of the various terms remains unclear, and the glosses in terms of the four English compass points are at best rough approximations). The terms are:

<i>bamu</i>	'east'
<i>kularr, wardiya</i>	'west'
<i>yardayi, yawan</i>	'north'

¹¹ One difficulty for the view that the unit augmented forms do not constitute choices within the pronominal paradigm is that there is no corresponding form *yawu-wili* or *yaddirr-wili* for 1&2 unit augmented: both of these forms were rejected out of hand by one of the speakers. Such exceptional facts are by no means rare in the languages of the region; in Yawuru the normal dual postposition may not mark 1&2, although there is an exceptional form which does this — Hosokawa 1991:291.

yalmбан 'south'

Where alternative roots are given the first term is the one most frequently represented in the corpus; meaning differences between the alternatives remain unknown. The unmarked form given above is employed in expressions of location, to indicate that some entity or situation is located in the appropriate direction relative to the speaker's present location or relative to some point of origin established in a narrative, normally the location of a central character. The suffix *-wurdany* ~ *-kurdany* may be attached to indicate that action was oriented towards the particular direction; the first form being used following a vowel or non-occlusive consonant; the second form, following an occlusive, as in *yalmбан-kurdany* 'towards the south'. It is likely that (as in other Australian Aboriginal languages), cardinal directions are employed in most contexts preference to egocentric directions such as 'left' and 'right' (see e.g. McGregor 1990:156-157, Levinson 1992).

Things are somewhat less regular in the expression of direction away from a cardinal. The ablative postposition *-kawu* ~ *-nkawu* attaches to *yardayi* 'north', *wardiya* 'west', and *yalmбан* 'south' to indicate motion away from the respective direction. However, the ablative form of *banu* 'east' appears to be the irregular form *banuwu* (cf. Nyikina *banuku*). There is no instance of this postposition on *kularr* 'west', which is attested only with the other ablative postposition *-jumu*; however, consistent with the meaning of this ablative marker, *kularr-jumu* refers not so much to movement away from the west (i.e. in an easterly direction), but rather to the west as a characteristic initial location of some entity, and thus to people from the west.

The other set of cardinals orients according to the vertical directions, and distinguishes between *kalbu* 'up, on top' and *jidawa* 'down, below'. *Jidawa* 'down' can take the nominal suffix *-wudany* COMIT, giving *jidiwawudany* 'downwards, downstream'; however, *-wudany* appears not to be able to be attached to *kalbu* 'up', but rather is attached to the suppletive form *kandaarra* 'up', giving *kandaarrawudany* 'upwards, upstream'. Whereas *kalbu* 'up' is also used in the sense 'on top (of something)', *jidawa* 'down' is not used in the sense 'inside' (as in many nearby languages). Instead, this meaning is expressed by the form *jimbin* 'inside' (which is identical with the adverbial meaning 'below, inside' in Nyulnyul).

The remaining spatial adverbials are non-cardinals, and do not employ any fixed reference system of orientation. These include a number of deictic adverbials: *karnkarnu* 'over there', *nyarri* 'long way away', *bawunarra* 'this way', as well as *nyin* 'here', *nyumu* 'in that direction, in the direction of a distant place, over there', *nyuwa* 'there' and *nyirra* 'over there'. The last four of these adverbials may be marked by ablative, perlocative and allative postpositions to indicate direction from, by way of, or towards some point located at an appropriate distance from the deictic centre. (It is not known how the last three of them contrast semantically; nor is it known precisely how *nyin* 'here' contrasts with *nyingkan* [this-LOC] 'here'.)

There are also a couple of non-deictic spatial adverbials: *baywarra* 'behind' and *ngulumba* 'ahead'. A single example must suffice:

- (4) *ngulumba ngarnda*
ahead you:go
'Go on ahead.'

[2] Temporal adverbials

These either locate an event in time (temporal location), or indicate how long it has been going on for (temporal extent). The following are the known temporal adverbials in Warrwa:

<i>miliyarri</i> 'before, previously, just about to'	<i>ngurra</i> 'night'
<i>miliya</i> 'now, today'	<i>ngurrangurra</i> '(late) afternoon'
<i>yaangarri</i> 'now'	<i>ngurranyan, kuulu</i> 'tomorrow'
<i>wanyji</i> 'later'	
<i>mayil</i> 'yesterday'	<i>yuumbal</i> '(for a) long time'

It will be observed that the term for 'before' appears to involve one of the terms for 'now', together with the apparently meaningless augment *-rri*. These two terms are illustrated in the following example:

- (5) *miliyarri yirdany ingana miliya juu ngirany*
before long he:was now short he:became
'He used to be tall; but now he is short.'

Interestingly, the terms for 'afternoon' and 'tomorrow' appear to be formed from *ngurra* 'night', by reduplication and by the addition of *-nyan* (of no known meaning) respectively. Furthermore, *ngurra* 'night' is identical in form with the widespread Pama-Nyungan *ngurra* 'place, camp'; the possibility of a connection between these meanings is enhanced by the fact that in Gooniyandi the word *riwi* 'camp, place' is used also in the sense 'day', as is *buru* 'camp, place' in Yawuru.

[3] Manner adverbials

There are only a few manner adverbials in the present corpus, viz: *balabala* 'quick', *bunyja* 'slowly', *kilirkin* 'side' (as in *lie on one's side*), and possibly *lurrungku* 'sideways' (as in *look sideways*) and *yab* 'away' (whose status as adverbial or preverb is not certain as yet). For example,

- (6) *kinya yila kurdi nandin balabala namungkany -ngayu*
this dog run he:is quick it:bit -1minACC
nguy jiny balabala jina -ngana buru
return it:did quick its -ALL place
'The dog runs out quickly, bit me and then ran back quickly.'

2.5. Particles and interjections

Particles and interjections form two relatively small, and possibly closed classes of words which do not take inflections of any kind, and are not normally found with bound morphemes attached to them. The two classes of word show quite different syntactic behaviour. Interjections occur independently, usually as the sole constituent of a minor clause (on which see §3.2.1 below) which is assigned its own intonation contour. Particles by contrast normally occur in syntagm with full clauses or parts thereof, which they hold within their scope. Occasionally, however, a particle may be found alone, as the sole constituent of a minor clause, functioning as if it were an interjection.

[1] *marlu* 'no, not'

This particle is used to negate clauses, both verbal and verbless. As in other Nyulnyulan languages, in Warrwa the inflecting verb of a negative verbal clause normally occurs in the irrealis:

- (7) *marlu wilarryalana wajbal, miliyarri,*
not they:might:have:seen white:person before
'They had never seen a white person before.'

In verbless clauses *marlu* 'not, no' usually occurs between the two equated constituents:

- (8) *kinya baalu marlu yirdany*
this tree not long
'This tree is not long.'

In addition to these clause-level usages in which it negates the full proposition expressed by the clause, *marlu* 'not, no' can also be used together with a nominal or adverbial, negating the referent property or quality, as illustrated by the following pair of examples.

- (9) *marlu mawu bilyi wamba*
not good red man
'No good white man.'

- (10) *marlu nyaarri*
not long:way
'not far; half way'

Interestingly, *marlu* 'not, no' may occur clause finally, as in (11) below. As this example illustrates, in this construction *marlu* 'not, no' does not negate the proposition expressed in the clause, but rather indicates that it occurred to no avail.

- (11) *kirlaykirlay ngirraanangany ngirmangkanyjinangany*
chase(redup) they:took:with:him they:fought:together:with:him
marlu,
no
'They chased him and fought him for nothing (i.e. to no avail).'

And finally, *marlu* 'not' can also be used in a minor clause expressing the negative meaning 'no'; in this usage it always occurs on its own intonation contour. Such a minor clause may be used as a negative response to a polar question (*marlu!* 'No!'), or to add emphasis to a preceding negative clause, as in:

- (12) *marlu wilarrarlina kinya may, marlu,*
not they:might:have:eaten this food not
'They didn't eat it.'

[2] *maliina* 'without, lacking'¹²

This particle appears to be restricted to NPs, where it is used to express a privative meaning — that is, without the entity designated by the head of the phrase. Examples of this particle are (13) below, and lines (8) and (10) in §4.

- (13) *kinya -n buru bulany -jirra, birra, maliina balya,*
this -LOC country he:came -them bush no clothes
'He came to them in the bush, where they had no clothes.'

[3] *ngawayi* 'yes'

This interjection is used in affirmative responses to polar questions, as shown by B's reply to A:

- (14) A: *juwa -na -wada mingkany*
you -ERG -INTER you:hit:him
'You hit him?'
B: *ngawayi*
yes
'Yes.'

It is not known how *marlu* 'no, not' and *ngawayi* 'yes' are employed in responses to negative questions.

[4] *nyaa* 'here'

This interjection, like *ngawayi* 'yes' is invariably found in minor clauses accompanying offers: *nyaa* 'Here (take this)!'

¹² This particle would appear to be built on *marlu* 'no, not', were it not for the fact that the quality of the lateral in the second syllable appears to be apico-alveolar rather than apico-post-alveolar.

[5] *bawuna* 'come here'

This interjection is used in calling out to someone to come to the speaker: *bawunawu* 'Come here!' (where *-wu* is an exclamatory marker).

2.6. Postpositions

Warrwa has quite a rich set of postpositions, including at least ten which mark case relationships, and one which marks number. The known postpositions, and their allomorphs, are shown in Table 5.

Postposition	Gloss
<i>-na ~ -ni ~ -rni ~ -nma ~ -ma</i>	ERG(ative)
<i>-yi</i>	DAT(ative)
<i>-n ~ -an ~ -ana ~ -kan ~ -wan</i>	LOC(ative)
<i>-ngana</i>	ALL(ative)
<i>-nkawu ~ -kawu</i>	ABL(ative) ₁
<i>-junu ~ -yumu</i>	ABL(ative) ₂
<i>-marru</i>	PER(lative)
<i>-ngany</i>	INST(rumental)
<i>-barri</i>	COMIT(ative) ₁
<i>-nyarri</i>	COMIT(ative) ₂
<i>-rnirl</i>	PL(ural)

Table 5: *Warrwa postpositions*

Below we discuss main functions of each postposition in turn.

[1] *-na ~ -ni ~ -rni ~ -nma ~ -ma* ERG

According to Capell 1952/1953, these forms represent two morphemes, the first three being the ergative marker, the second pair being an emphatic marker for pronouns. However, this is not supported by the facts. The form *-nma ~ -ma* it is not restricted to pronouns, and in fact, rarely occurs on them. On the other hand, it does appear to be restricted to precisely the same environments as *-na ~ -ni ~ -rni*, which is clearly an ergative marker. All of these forms mark the Agent ("subject") of transitive and middle clauses; see §3.2.2.2 for discussion of these terms and for examples of use.

The choice between *-na* and *-ni* appears to be lexically conditioned. The *-ni* form is employed on the borrowed words *stockman* and *wajbal*, as well as *linykurra* 'salt water crocodile', suggesting that

perhaps this form marks borrowed words (*linykurra* is in fact a widespread word for 'salt water crocodile' in southern Kimberley languages). I am unable to account for the distribution of *-rni*.

Phonological factors condition the choice between *-nma* and *-ma*. The former occurs following vowels, the latter following the liquids *l*, *rl* and *rr* (unfortunately, there are no examples of word final consonants other than these two preceding the ergative marker). Thus, for example, we have *linyju-nma* 'by the policeman', *iri-nma* 'by the woman', and *kirdi-nma* 'by the sun', but *wajbal-ma* 'by the white person', *wangal-ma* 'by the wind', *kinya-rnirl-ma* 'by that (one)', *yadirr-ma* 'by us', etc..

The choice between *-na ~ -ni ~ -rni* and *-nma ~ -ma* is not so easily accounted for, and no phonological or lexical explanations can be maintained. There are in fact half a dozen nominals in the corpus which are attested with an allomorph from both sets. One possibility is that the second pair might be borrowed. This possibility, however, is easily discounted: the northern Kimberley languages to the north are not ergative; the Bunuban languages to the east are ergative, but the ergative postposition is not cognate (the form being *-ingga* in Bunuba (Rumsey forthcoming) and *-ngga* in Gooniyandi (McGregor 1990:177)); and in Nyikina the form is *-ni*. In fact, comparative evidence suggests that all forms may go back to one ancestral form, **-nima* (cf. Bardi and Jawi *-nim*). It seems then that there are only two possibilities: that the two sets are in free variation, or that they represent two distinct ergative markers, which convey slightly different meanings. No certain answer can be given to this question here due to inadequacies in the size of the corpus. Nevertheless, one promising possibility is that the marked forms *-nma ~ -ma* may be emphatic ergative markers, marking unexpected Agents, or Agents who do unexpected things — much as the choice between use and non-use of the ergative postposition in Gooniyandi is motivated by the contrast between expected and unexpected Agent (McGregor 1992).

Such a proposal cannot be justified here. I content myself with brief information on a few illustrative contrasts, as shown in Table 6.

Nominal	Marker	Situation
<i>iri</i> 'woman'	<i>-na</i>	'Woman dug for food.' (Normal activity.)
	<i>-nma</i>	'Woman dragged child along.' (Unusual action.)
<i>linyju</i> 'policeman'	<i>-na</i>	'Policeman locked them up.' (Habitual, usual activity of the police.)
	<i>-nma</i>	'Policeman looked for him.' (Unusual in that a lot of effort was required in this case.)
<i>kirdi</i> 'sun'	<i>-na</i>	'Sun got me in the eye.' (Not remarkable, and person not much affected.)
	<i>-nma</i>	'Sun burnt my neck.' (Probably less common, and person more affected by the event.)

Table 6: *Illustration of the uses of the two ergative markers*

Finally, it is remarked that the ergative postposition occasionally occurs in an intransitive clause

which precedes a transitive clause to which it is very closely related semantically, so closely related that the two clauses would appear to designate a single situation. This phenomenon — sometimes called “ergative hopping” — occurs in a number of ergative languages in Australia, including Guugu Yimidhirr (Haviland 1979:154ff), Gooniyandi (McGregor 1990:412) and Bunuba (Rumsey forthcoming). The following sentence is illustrative.

- (16) iri -nma inyja ngirndan bawa yarr nankan
 woman -ERG walkabout she:goes child pull she:carries
 'The woman is dragging the child along.'

[2] -yi DAT

This postposition, which is instanced only a couple of times in the corpus, indicates either the purpose or use for some entity (as in (16)), or some entity in respect to which a situation was undertaken (as in (17)).

- (16) dalawwurru baalu -yi jub
 axe stick -DAT cut
 'The axe is for cutting trees.'
- (17) uba baawa wangkurr -ngkayi ingan ngamarn -yi kuya jina
 little child crying -CONT he:is breast -DAT mother his
 yab ngirndany
 away she:went
 'The baby is crying for milk; its mother had gone away.'

In just one example the DAT postposition appears to be being used to mark possession — however, it is perhaps significant that the possessive relationship in this example is between the two NPs in a clause, rather than within a single NP:

- (18) kinya -yi wamba kinya yila
 that -DAT man this dog
 'It is that man's dog.'

[3] -n ~ -an ~ -ana ~ -kan ~ -wan LOC

The phonetic similarity of these five forms, coupled with the fact that there appears to be no semantic difference among them, suggests that they are all allomorphs of a locative postposition. However, as yet I am unable to satisfactorily explain the conditioning factors, or show that they are in free variation. The following two generalisations can be made. First, it seems that the -n allomorph occurs following the vowel *a*, as in *jana-n* [where-LOC] 'where'. Where the vowel is *u*, it seems that sometimes the allomorph -n is chosen, and sometimes the *u* is replaced by the initial *a* of the -an allomorph. These two possibilities are illustrated by the words *baalu-n* [tree-LOC] 'at the tree' and *buran* [place-LOC] 'at the place' (cf. *buru* 'place'), respectively. And second, the allomorph -an follows a stem final non-occlusive consonant, as in *mayar-an* [house-LOC] 'in the house'.

But neither of these generalisations is exceptionless. The two consonant initial allomorphs are both found following vowels: the stop-initial allomorph is found following /a/ and /i/, the glide initial form, following /u/. Examples are *birra-kan* 'in the bush' (which alternates with *birra-n*), *majaabi-kan* 'in the pouch', and *jalu-wan* 'in the camp'. There is no apparent reason for this alternation of /k/ and /w/, or why the consonant initial allomorph should be employed for these words, unless it is simply lexically conditioned.¹³

This postposition indicates a spatial location for an entity or situation. A quite general locational sense is involved, which admits at least the following contextual senses:

- location at a point or place:

- (19) buru naarda -n kardiny
 dust eye -LOC it:entered
 'Dust got into my eye.'

In this example, it should be noted, the event of entering the speaker's eye is being referred to; no motion is specified: change of position is implied, rather than being specifically indicated. Another example is provided by line (2) in §4.

- location in some place or thing (where the place or thing encompasses the entity or situation):

- (20) ingana birr -ana,
 he:was bush -LOC
 'He was in the bush.'

- location of situation or entity on some place or thing:

- (21) kururr -ngkay walama, jungk -an, wila,
 black -CONT you:will:put fire -LOC water
 'Make the tea black on the fire.'

- location of an entity or situation by or near some (other) entity:

- (22) yawarda -warri; ngayu kaliya, warrkum -kay nganganarda
 horse -COMIT I already work -CONT I:used:to:be
 mayar -an,
 house -LOC
 'He was a horseman; I worked around the house.'

¹³ The Nyikina form of the locative postposition is *-kan ~ -an*, the former allomorph occurring following consonants, the latter following vowels; no corresponding glide initial *-wan* is found in this language. These facts suggest that it is unlikely that the *-kan ~ -wan* forms are borrowings from Nyikina. Most likely, all of the allomorphs derive ultimately from proto-Nyulnyulan **-kun* LOC. The details for the historical derivation of the modern forms are not yet understood.

The above examples all illustrate spatial senses of the LOC postposition; only one or two available examples permit interpretations as temporal locations. (23) and (24) provide illustration. In (23) *wila* 'water' is used in the sense of 'year' (as is the corresponding word in many other languages in the region).

(23) warany -kan wila ngarndany
other -LOC water I:went
'I went last year.'

(24) kinya -n ngirrarndany, kinya -n nguynGuy ngirrayina,
this -LOC they:went this -LOC return(redup) they:did
wanyji, warany -kan; warany -kan; birnkarr, nguy ngirrinY,
later one -LOC one -LOC month return they:did
'They all came back after another month.'

[4] -ngana ALL

The postposition *-ngana* ALL indicates a spatial goal or target towards which an action is or was directed, as illustrated by:

(25) kinya -yunu yalmbanu kurraK jina, libirringka -ngana,
this -ABL₂ south turn:off he:did liveringa -ALL
'Then his wife went south to Liveringa station.'

Sometimes *-ngana* ALL translates as 'into' rather than 'to, towards', especially when the goal towards which the motion is directed forms a medium within which the thing which moves is located as a result of the motion:

(26) wila -ngana juburr jan
water -ALL dive it:does
'The bird dives into the water.'

As (27) shows, however, the goal towards which the action is oriented need not necessarily be a place; in this example, it is a condition or activity in which the Actor is involved, namely work.

(27) waranynganyjina, kinya -n nguy ngirrayina, nguynGuy
other this -LOC return they:did return(redup)
ngirrayina, murrkulyi -ngana, warany -ngana buru,
they:did work -ALL one -ALL country
'Others returned here and worked in the same country.'

[5] -nkawu ~ -kawu ABL₁, [6] -junu ~ -yumu ABL₂

These postpositions both have as their function the indication of the source or origin of a situation or entity. How precisely they differ semantically from one another remains unclear at this stage; however, semantic differences do exist, and these will need to be refined in future research. Below we provide

brief exemplification of each, and some indication of the possible dimensions of semantic contrast.

Of the two, *-nkawu* ABL₁ is by far the most common.¹⁴ The allomorph *-kawu* occurs following a nasal-final root, as in *yalmban-kawu* 'from the south'; the "elsewhere" allomorph *-nkawu* occurs everywhere else (i.e. primarily following vowels).

The postposition *-nkawu* ABL₁ has three main uses. (i) It marks the source for a situation, the place where motion started from, as in the following examples:

(28) niyambala ngajanu jarrbard nganany bura -nkawu ngayi -na
foot my lift I:gave camp -ABL₁ I -ERG
'I lifted my foot from the ground.'

(29) nyuwa -nkawu wanangarri -nkawu ngambulany
there -ABL₁ hill -ABL₁ I:came
'I came from that hill.'

(ii) It can mark a body part through which the action is actualised, as in (30).¹⁵

(30) makarra -ngkawu kidarr nganany
tail -ABL₁ pull I:gave
'I pulled it out by the tail.'

(iii) It can mark a time after which a situation has occurred, as in

(31) kinya -nkawu, kwiina ngangarany kaliya, wajbal -ma,
this -ABL₁ big I:grew already white:person -ERG
ngirrarndanarda, bawa nyingka baabala ngajanu,
they:used:to:go child he brother my
'Then, when I had grown up, the white people used to go around;
my brother was still a young boy.'

There are fewer examples of the other ablative postposition, and the following remarks are tentative. As expected, the stop initial form occurs following nasals and stops; the glide initial form follows vowels. This postposition normally marks a place or quality which is characteristic of an entity, as illustrated by (32):

(32) kwiina bili; ngirramany kinya -n, nyin -junu:::
big fight they:put this -LOC here -ABL₂

¹⁴ It is possible that the initial *-n* of this postposition is an instance of the locative postposition — in various Australian Aboriginal languages the ablative is built on the locative. However, for our present purposes it seems most reasonable to regard the initial nasal segment as a part of the form of the postposition.

¹⁵ Interestingly, the ablative marker *-nhingi* in Gooniyandi shows precisely this same sense when attached to nouns indicating parts of the body.

kudarrngan -junu, kularr kularr -junu,
 that:side -ABL₂ west west -ABL₂
 'They put up a big fight there, the people from here and there
 and everywhere.'

As this suggests, a nominal marked by *-junu* ~ *-yunu* ABL₂ may be used to refer to persons or animals associated with the place, as in e.g. *birra-yunu* [bush-ABL₂] 'bush people, people from the bush'. This postposition is also found attached to the endophoric determiner *kinya* 'this, that', the form *kinya-yunu* being used as a conjunction meaning 'then, after that' — see lines (3) and (19) in §4.

Occasionally *-junu* ~ *-yunu* ABL₂ indicates a temporal or causal source for some situation; it may be attached to either a preverb or a nominal:

(33) ika ingan kung -junu
 sore he:is drink -ABL₂
 'He is sick from drinking.'

(34) warnak jan wila -yunu
 lost he:is water -ABL₂
 'He doesn't know where he's going, from grog.'

[7] *-marru* PER

This postposition indicates orientation of motion with respect to some point or points along the path of motion rather than with respect to an end point. Thus it translates as 'around' (as in (35)), 'across' (as in (36)), 'by way of' (as in (37)), and so on.

(35) kinya, ngarrarndany nyunu, murrkulyi -ngkaya,
 this we:went there work -CONT
 kudaawan -marru,
 Kimberley:Downs -PER
 'We went that way, for work, around Kimberley Downs way.'

(36) ngarndany -jarri wanangarri -marru jub ngandiny -ngayu
 I:went -SEQ stone -PER cut I:got -lminACC
 ngayambala
 my:foot
 'When I walked across the stones they cut my foot.'

(37) kinya -marru buru ngarndany
 this -PER camp I:went
 'I went via this house.'

Interestingly, *-marru* PER is sometimes attached to the indefinite nominal *jana* 'where' in requests for information regarding someone's direction of motion, as in (38). This may perhaps be motivated by considerations of politeness — it may be considered more polite to ask for the addressee's path than where they are ultimately headed for.

(38) jana -marru mirndan
 where -PER you:go
 'Where are you going?'

[8] *-ngany* INST

The postposition *-ngany* INST normally marks something used as an instrument in performing an action. This may be a body part used instrumentally, as in (39), or some other entity used as a tool or weapon, as in (40):

(39) waarru ngambanyjina nimala -ngany
 scratch I:did:self hand -INST
 'I scratched myself with my hand.'

(40) milarn widij ngarrayankarda buru kinya -ngany
 stick dig we:do ground this -INST
 'Stick is for digging the ground with.' (Literally: 'We always dig the ground with digging sticks.')

The "instrument" may even be animate, as in:

(41) yawarda -ngany kirlay nankana -yirra baabala -na jirra,
 horse -INST chase he:carried -them brother -ERG their
 'He chased them on a horse, their brother.'

The postposition *-ngany* INST has an occasional allomorph *-ngkany*, which may perhaps be in free variation with *-ngany*. Thus both *baalu-ngkany* and *baalu-ngany* 'with a stick' are attested (*baalu* means 'stick'). Other words employing the *-ngkany* allomorph are *dalawwurru-ngkany* 'with an axe' and *jadarr-ngkany* 'with a walking stick.'

[9] *-barri* ~ *-warri* COMIT₁

This postposition conveys a comitative sense, indicating something in association with which some entity was or is, or was or is during the enactment of a situation. (Recall that another bound morpheme, *-wurrany* ~ *-wirrany* also conveys a comitative sense; this, however, appears to be a nominal suffix (see under [1] in §2.2.3).) The stop-initial form occurs following a stem final stop or nasal; the glide-initial form occurs otherwise. In example (22) *yawarda-warri* [horse-COMIT₁] 'with a horse' characterises an entity in terms of its association with horses: it characterises a man as a stockman.

In the following examples the NP in constituency with *-barri* ~ *-warri* COMIT₁ represents something the Actor was in association with while enacting the situation:

(42) ngayu inyja ngarndany yila -warri
 I go I:went dog -COMIT₁
 'I went with my dog.'

- (43) wirrwiny -barri balya ngirwanina,
leaves -COMIT₁ clothes they:stayed
'They wore leaf clothing.'

(Observe that in (43) *-barri* COMIT is in association with the full NP *wirrwiny balya* 'leaf clothing'.)

[10] *-nyarri* COMIT₂

The entity which is designated by a *-barri* ~ *-warri* COMIT₁ PP is typically of lower status than the thing which it is associated with, as the examples in [9] illustrate. When the *-nyarri* COMIT₂ postposition is used, by contrast, the associated entity is of the same status as the thing it is associated with. This is illustrated by (44): clearly the jam and damper are entities of the same type, and relative status.

- (44) wajbal -ma jubjub nandina mangarri kalyi
white:person -ERG cut he:got:it food rub
nankana kaliya warnanga -nyarri,
he:carried:it finish jam -COMIT₂
'The white person cut up the damper and spread jam on it.'

As might be expected, *-nyarri* COMIT₂ is sometimes used to conjoin nominals, as in (45) and (46):

- (45) kamirda ngajanu, kuya -rnirl jina kabayi
mother's:mother my mother -PL her sister:in:law
-nyarri, kabayi -nyarri jina, ngirwanina kinya -n,
-COMIT₂ sister:in:law -COMIT₂ her they:stayed this -LOC
'My grandmother, mothers and sister-in-laws were sitting there.'
- (46) kujarra ngirwanin -bili waangu -nyarri yaaku
two they:stay -du wife -COMIT₂ husband
'The husband and wife stay together.'

A third usage of this postposition connects the nominal not to something else in the clause, but to something external to it. It thus translates as 'etcetera', 'too', 'also' or 'and so on':

- (47) waranyganyjina -nyarri warrkum nganjina
another -COMIT₂ work I:did
'I did other kinds of work too. (i.e. as well as what we have just been speaking about)'
- (48) wila -nyarri kurndu ngarranarda
water -COMIT₂ carry we:used:to:carry
'We used to carry water too.'

In examples (45) and (46) we see *-nyarri* COMIT₂ attached to kinterms, conjoining them together so as to refer to a single group. One of the conjuncts may be absent, in which case *-nyarri* COMIT₂

appears to function as a dyadic marker for kinterms. Thus, for instance, in addition to *waangu-nyarri yaaku* 'wife and husband', we find *waangu-nyarri* [wife-COMIT₂] 'wife and husband dyad'; and in addition to *baawa-nyarri ibala* 'father and son', we have *ibala-nyarri* 'father and son dyad'. It should be noted, however, that the formation of dyadic kinterms is a complex area of grammar, and the use of *-nyarri* COMIT₂ is not fully productive. For instance, the pair consisting of ego and *kaabali* 'father's mother' is referred to as *ungkabali*, not *kaabali-nyarri*.

[12] *-rnirl* PL

In addition to the above case-marking postpositions, there is a number-marking postposition, *-rnirl* PL. This postposition normally indicates a plurality of referents of an NP, and thus usually finds an appropriate gloss as 'many'. Thus, for instance, in (45) above reference is being made to a plurality of individuals who are collectively referred to in the initial NP of the clause — observe here that it is not just the word *kuya* 'mother' that is indicated as being plural, but the whole set of female relatives of the speaker: her mother's mother, her mother, and her sister-in-laws. Thus, as has been suggested before, the postposition is a phrase-level marker, indicating the number of the phrase, rather than of a word in it.

As (49) shows, *-rnirl* PL may be followed by a case-marking postposition; other sequences are also evidenced in the corpus.

- (49) jilijili ngirramana kinya -rnirl -ma,
pour they:put this -PL -ERG
'They poured it out then.'

Warrwa does not distinguish between mass and count nouns, and thus the postposition *-rnirl* PL does not distinguish between a large quantity in number and a large quantity in mass. Examples of the latter are rarer than the former, however (due to the fact that quantity is not likely to be marked on inanimate NPs). (50) is one of the few available examples: here it is the quantity of food that is being referred to by the phrase marked by *-rnirl* PL, that is, *kinya may* 'this food'.

- (50) angki -yunu laj kurrayan kinya -rnirl may, marlu,
what -ABL₂ throw you:do this -PL food not
'"Why do you mob throw that food away?"'

2.7. Enclitics

[1] *-ngurndany* ~ *-ngurndayi* INDEF

This enclitic, which is normally attached to the first word of a clause, irrespective of its word class, indicates that there is some doubt as to the validity of the proposition expressed. (It is not known what motivates the choice between the allomorphs.) examples illustrating the different word classes to which this enclitic may be attached — nominal, adverbial, preverb and inflecting verb — are, respectively:

- (51) ngangkany kinya -na -ngurndayi nandiny
I:hit:him this -ERG -INDEF he:got:it
'I hit him, (because) perhaps he took it.'
- (52) wanyji -ngurndayi muk nungkayi
later -INDEF hit he:will:do
'He might hit him later.'
- (53) wirr -ngurndayi ngangara -yi ngayu
frightened -INDEF I:became -3minACC I
'I might be frightened of you.'
- (54) ngirrangkany -ngurndayi marlu nila yaddirr
they:killed:him -INDEF not know we
'He might have been killed; we don't know.'

As these examples make clear, *-ngurndayi* INDEF has scope over the whole clause. It is also clear that they invoke focus on the word to which they are attached, indicating that this is the part of the proposition around which doubt primarily accumulates. In (51), for instance, it is the identity of the person hit as Agent of the theft that the doubt primarily accumulates: that someone was involved in the theft appears to be taken for granted; that this individual is the one who was involved is not fully certain. Similarly, in (52) it would seem that the main indefiniteness concerns the time of hitting; in (53) it concerns the emotion that the Agent experiences towards the speaker; and in (54) it concerns whether the action was undertaken at all.

As the following example illustrates, *-ngurndany* INDEF is not always attached to the first word of a clause — but the word to which it is attached still remains the focus of doubt:

- (55) kinya yila kurd -ngurndany ngirndany ngayu marlu nila
this horse dead -INDEF it:went I not know
'This horse might be dead; I don't know.'

There is clearly no presupposition here that some horse is dead; what is at issue is whether the particular horse being spoken about is in this state.

Attached to the indefinite determiners *jana* 'where' and *yangki* 'what, who', *-ngurndany* usually indicates that the information is not just not known, but also not being sought from the hearer. Thus *jana-ngurndany* usually translates as 'somewhere', *yangki-ngurndany* as 'something'.

[2] *-wada* INTER

This enclitic is normally attached to the first word of a clause, irrespective of its word class, and marks that clause as a polar interrogative:

- (57) marlu -wada milyalana
not -INTER you:might:have:seen:him
'Didn't you see him?'
- (58) juwa -na -wada mingkany
you -ERG -INTER you:hit:him
'Did you hit him?'

It is probably the case that *-wada* attaches to the focus of the interrogative; however, there is inadequate evidence to be sure of this.

This enclitic appears to have a similar primary function to the Nyulnyul particle *nganyj* INTER, although it is clearly not cognate with it; whether *-wada* has a similar range of additional functions — including the marking of indefiniteness (e.g. 'You might not have seen him', for (57)) is not known. On the other hand, it is quite likely that *-wada* is cognate with the particle *wadi* 'perhaps' in Gunin (McGregor 1993a:35).

2.8 Verb morphology

2.8.1. Structure of the Warrwa verbal complex

As has already been mentioned, Warrwa shows two types of verbal lexemes, preverbs and inflecting verbs (Stokes 1982, Hosokawa 1991 and McGregor 1993c). Preverbs are by and large invariant; inflecting verbs are quite morphologically complex, and take various prefixes and suffixes cross-referencing the subject and object, indicating tense, mood and aspect, and so on. For example, *nganjalanjany* 'I saw him' involves the prefix *nga-* 1minNOM, the transitive prefix *-n-*, the verb root *-JALA* 'see', and the past tense suffix *-ny*.

Preverbs generally occur together with an inflecting verb (although in certain circumstances a preverb may occur alone). By contrast, all inflecting verbs have the potential for independent occurrence. Thus, two types of verbal construction are distinguishable: (a) SIMPLE verbs, consisting of an inflecting verb alone, as in (59); and (b) COMPOUND verbs, consisting of a preverb plus an inflecting verb, as in (60). Only about a dozen inflecting verbs occur in compound verb constructions; the others are restricted to simple verbs.

- (59) ngayu nganjalanjany
I I:fell
'I fell over.'
- (60) kurdii nandin
run he:gets
'He's running.'

The morphology and semantics of both simple and compound verbs in Warrwa is quite complicated,

and at present are understood only in broad outline, due to inadequacies in the corpus.¹⁶ In the following subsections I describe some of the main characteristics of simple and compound verbs, in order. No attempt is made at providing exhaustive coverage.

2.8.2. Inflecting verbs

The structure of the inflecting verb in Warrwa appears to be as set out in the following tentative formula. It must be stressed however that there remain many gaps in my knowledge and understanding of the inflecting verb, and the formula will need to be refined and extended as the analysis proceeds.

NOM PRO + (MOOD) + (NUMBER) + (VOICE) + (TENSE) + (E-NASAL) + ROOT + (REF)
+ (TENSE) + (ASPECT) + (SUBORDINATOR) + ($\begin{matrix} \text{ACC} \\ \text{OBL} \end{matrix}$ PRO) + (DU)

There are, as this formula shows, just two obligatory elements in an inflecting verb form: a nominative pronominal prefix and the root itself. The pronominal prefix cross-references the “subject” of the clause, indicating its person and number, albeit imperfectly. The forms of the prefixes also vary according to tense, mood and the conjugation class of the verb root. There is also a number-marking prefix which further specifies the number of this “subject” if it is non-minimal; this prefix follows the optional mood prefix, and is itself obligatory if the number of the “subject” is non-minimal. Following this is a voice prefix, which indicates whether the clause is transitive or reflexive/reciprocal; the latter category is simultaneously marked by a suffix. Tense marking occurs one of in two places: either following the voice prefix, or following the reflexive/reciprocal suffix. Following the latter comes an optional aspect suffix; at a more outer layer are the subordinate marker, pronominal suffixes which cross-reference the “object” or “beneficiary” (if there is one), and the optional dual suffix.

No inflecting verb forms in the corpus show all of the order-classes in the above formula; in fact, the majority show a half or less. Furthermore, there are co-occurrence restrictions on some of the order classes. For instance, selection of the reflexive morphemes precludes selection of the accusative pronominal suffix, and selection of a tense prefix precludes selection of a tense suffix; on the other hand, the final DU suffix can only occur if one of the pronominal prefixes or suffixes is of non-minimal number. The following are some examples of inflecting verbs which illustrate the above remarks:

<i>φ-na-mungka-ny-ngayu</i>	3minNOM-TR-MUNGKA-PA ₂ -1minACC	‘it bit me’
<i>nga-na-ma-ny</i>	1minNOM-TR-MA-PA ₂	‘I put it’
<i>nga-rnda-n-jina</i>	1minNOM-ARND-PA ₂ -PRES-3minOBL	‘I am going to him’
<i>ngi-rnda-ny-jarri</i>	3minNOM-ARND-PA ₂ -SEQ	‘after he had gone’
<i>ngi-rr-murungu-ny-jina</i>	3augNOM-AUG-MURUNGU-PA ₂ -3minOBL	‘they were looking for him’

¹⁶ The bulk of the inflecting verb forms in my corpus designate events which occurred in the past, reflecting the narrative corpus and my main foci of interest in the early stages of Warrwa elicitation. Most of the information on other forms of the verbs comes from paradigms kindly provided by Bronwyn Stokes

<i>wi-la-rnda-na</i>	3minNOM-IRR-ARND-PA ₁	‘he nearly went’
<i>φ-banyju-ny-jarri-yaddirr</i>	3minNOM-BANYJU-PA ₂ -SEQ-1&2augACC	‘when it smelt us’
<i>nga-ma-wula-nyji-n</i>	1minNOM-REF-WULA-REF-PRES	‘I was putting it on myself’

The order-class formula above describes finite inflecting verb forms. It seems that — as in various other Nyulnyulan languages, including Nyikina (Stokes 1982:268ff) and Nyulnyul (McGregor forthcoming a) — inflecting verbs in Warrwa also show what might be referred to as non-finite forms. These are forms which do not permit pronominal or mood prefixes, the former being replaced by the GEN(eral) (to use Stokes’ terminology) prefix *ma-*; this prefix always cooccurs with the present tense suffix. Unfortunately, there is a single verb root only which is attested in this construction, -WULA ‘tie up, to establish a connection with’. This verb root occurs in reduplicated form in *mawulawulan* ‘be tangled’; in (61), it occurs with the reflexive prefix and suffix, suggesting strongly that this non-finite construction is indeed productive.

(61) <i>wiliwili</i>	<i>ma-ma-wula-nyji-n</i>
fishing:line	GEN-REF-WULA-REF-PRES
‘Fishing line is tangled up.’	

2.8.2.1. Inflecting verb roots

Almost sixty inflecting verbs are represented in the present corpus, and it is likely that there may be two to three times this number (Nyikina has at least 145 — Stokes 1982:197). They fall into two main conjugation classes which I will refer to as class I and II.¹⁷ These classes are distinguished by virtue of the fact that they take different forms of the second and third person minimal pronominal prefixes, show different means of forming the future and irrealis, and because the former (but not the latter) takes the TR prefix (see §2.8.2.2.3). As might be expected, class I verb roots are mostly bivalent, and take normally an ACC pronominal suffix as well as a NOM prefix; in this class are included -BILA ‘find’, -JALA ‘see’, -JANGKULI ‘cut, break’, -NGKA ‘hit, kill’, -LARRA ‘hear’, -RLI ‘eat’, -MUNGKA ‘bite’, -MINYJALA ‘await’, -NGARI ‘escape’, -ANDI ‘get, catch’, and -WA ~ φ ‘give’. Class II verb roots are mostly monovalent, and include -BULA ‘come’, -BAD ‘rise’, -JALU ‘fall’, -KARDI ‘enter, set’, -NI ~ -WANI ~ -NGA ‘be, sit’, and -ARND-PA ‘go’. As these lists indicate, some verbs show suppletive forms; there are also verb roots which show irregularities in their choice of prefixes. The description of verbal prefixation that follows (§2.8.2.2) accounts only for the regular verbs.

One of the interesting characteristics of Nyulnyulan languages is the existence of a set of verb roots

¹⁷ I use these designations to maintain consistency with descriptions of other Nyulnyulan languages, notably Stokes 1982 — where they were first employed — and Hosokawa 1991. Stokes, however, sees them as labels for different sets of prefixes (thus she refers to set I and set II prefixes), rather than as labels for different conjugation classes. I prefer to regard them as labels for different conjugations (as does Hosokawa 1991) which are defined by the different patterns of prefixation. This seems to me to permit a more general description of the inflecting verb, albeit not one without irregularities. The advantage of Stokes’ analysis is that it is less abstract, and represents the occurring forms more perspicuously. (These have to be derived in my analysis by the operation of a number of rules, which are spelt out here only in broad terms.)

which inflect according to both conjugation patterns, depending on the transitivity of the clause: I in transitive clauses, II in intransitive clauses. Following Stokes 1982:255 I will refer to these as alternative prefixing roots (see further §2.8.2.2.3).

As in other Nyulnyulan languages, inflecting verbs may be reduplicated. However, there are only a handful of examples in the corpus. Reduplication appears to generally convey the notion of plurality or multiplicity. This normally concerns one of the arguments of the clause, as in the reduplication -BULAWULA 'come (of many people)' of -BULA 'come', and the retriplication MARR-MARR-MARRA 'brand (a number of cattle)' of -MARRA 'burn'. Observe that in these examples it is the "subject" of the intransitive clause and the "object" of the transitive clause that the plurality relates to. However, it need not necessarily be the case that this argument is plural. It is sufficient for it to involve some plural aspect: -WULA 'tie, connect with' reduplicates to -WULAWULA 'be tangled' (where there are numerous connections within the "object") and -JARDI 'take off, take apart' reduplicates to -JARDIYARDI 'untangle' (the "object" here may also be singular, but characterised by numerous connections).

2.8.2.2. Verbal prefixes

2.8.2.2.1. Pronominal person and number prefixes

The inflecting verb in Warrwa has as its first item a pronominal prefix which cross-references the Actor (or "subject") of the clause. Table 7 lists the major known allomorphs of the pronominal prefixes. As can be seen, there are various allomorphs for each person-number configuration, depending on the "status" of the referent situation — i.e. whether it has occurred or is occurring (Non-fut); is asserted to occur in the future (Fut); or is unrealised (Irr). In addition, in the second and third person minimals there are different allomorphs according to the conjugation class of the verb root, which is shown in brackets after the allomorph; elsewhere the shape of the pronominal prefix does not vary according to the conjugation class of the verb root.

The forms given in the right hand column, the augmented number, co-occur with the number marking prefix *rr-* which may be separated from the pronominal prefix by the irrealis mood prefix.

As Arthur Capell observed many years ago, the Warrwa verb paradigm shows some rather unexpected features (Capell 1952/1953:458). Most surprising is the presence of an initial *ng* in many of the third person forms. Capell comments (1952/1953:458) that "... the wrong meanings have become attached to person prefixes, e.g. *ŋ-* is used in the third person singular and plural as well as in the first singular". In fact, the initial *ng* in these forms has nothing at all to do with the first person singular pronominal prefix, either synchronically or diachronically. What it is is the initial segment of the third person prefix *ngi-* — my guess is that this derives historically from a past-tense marker *ngi- ~ nga-* which still shows up in Nyulnyul (irregularly), rather than from the first person minimal form.

The ϕ allomorph of the third person singular pronominal prefix in the non-future is the most common allomorph with verb roots of both class I (e.g. ϕ -*na-ra-ny* 's/he speared it', ϕ -*na-rli-ny* 's/he ate it', etc.) and II (e.g. ϕ -*bula-ny* 's/he came', ϕ -*murungu-n* 's/he is looking for it', ϕ -*marra-n* 'it is burning, etc.').

		Minimal	Augmented
1	Non-fut	<i>nga-</i>	<i>nga-</i>
	Fut	<i>ka-</i>	<i>ka-</i>
	Irr	<i>nga-</i>	<i>ya-</i>
1&2	Non-fut	<i>ya-</i>	<i>ya-</i>
	Fut	<i>ya-</i>	<i>ya-</i>
	Irr	<i>ya-</i>	<i>ya-</i>
2	Non-fut	<i>mi-</i>	<i>ku-</i>
	Fut	<i>wa-</i> (I); <i>nga-</i> (II)	<i>wa-</i>
	Irr	<i>mi-</i>	<i>ku-</i>
3	Non-fut	ϕ - (I); ϕ - <i>~ i-</i> <i>~ ngi-</i> (II)	<i>ngi-</i> <i>~ i-</i>
	Fut	ϕ - (I); <i>ku-</i> (II)	<i>ku-</i>
	Irr	<i>wi-</i>	<i>wi-</i>

Table 7: Pronominal prefixes to Warrwa inflecting verbs

2.8.2.2.2. Irrealis mood prefix

Directly following the pronominal prefix may occur a morpheme indicating irrealis mood; as shown in Table 7, a special allomorph of the pronominal prefix is sometimes chosen with the irrealis category, while other times there is no difference from the non-future allomorph.

The irrealis indicates the unrealised status of an event in past, present or future time. In non-future (i.e. past and present) irrealis one of the three allomorphs *la- ~ lu- ~ l-* is employed. The *la-* allomorph occurs preceding any other prefix (such as the number prefix), as well as roots with initial vowels, liquids and glides, and before the ϕ allomorph of -WA 'give'. Examples are: *mi-la-larra-na* 'you might have heard it', *nga-la-ndi-na* 'I might have got it'. If the following vowel is a high back vowel, vowel harmony occurs, and the *lu-* allomorph is chosen: *nga-lu-murlu-na* 'I might have found it'.

The *l-* allomorph occurs in other environments — that is, preceding stop initial verb roots. This is exemplified by *nga-l-ka-na* 'I might have hit him' and *nga-l-ji-na* 'I might have said/done'. Sometimes, apparently optionally, the initial stop of the root lenites to the corresponding glide, as in *nga-l-yala-na* 'I might have seen it' (cf. -JALA 'see'; *nga-l-jala-na* is also attested) and *nga-l-wanji-na* 'I might have done to myself' (cf. -BANYJI 'do to self'). (There are a couple of unexplained instances in which *l-* occurs where *la-* is expected.

Past and present irrealis are distinguished by the choice of suffix: the past irrealis occurs with the past tense marker *-na* PA₁, whereas present irrealis involves no suffix.

Future irrealis is marked differently for class I and II verb roots. For class II verbs it is marked by

the prefix *ya-*, as in *mi-ya-ngara* 'you (minimal) might become' and *ku-ya-rr-wula* 'you (augmented) might come'. But for class I verbs *ya-* occurs only in the augmented number, as in *wi-ya-rr-a* 'they might carry it'; in the minimal number the TR marker *na-* (§2.8.2.2.3) occurs instead of the irrealis prefix, together with the irrealis forms of the pronominal prefixes, as in *nga-na-ra* 'I might spear it' and *wi-na-ra* 's/he might spear it'.

The irrealis indicates that the referent situation is (as of the time of speaking) unrealised. Inflecting verbs in negated clauses are normally in the irrealis mood. The irrealis is also used in positive clauses which refer to past or present time to indicate that although a situation did not occur, or is not occurring, it might well have. Thus, it may convey the contextual sense 'might have happened (but didn't)', 'should have happened (but didn't)', 'tried to happen (but didn't)', etc.. Examples are (62) and the second clause of line (29) in §4.

(62) *miliyarri ngalandina kurdi wulany*
 long:ago I:might:have:caught run he:did
 'I wanted to catch him but he ran away.'

Exactly how the plain future and future irrealis contrast semantically is not clear at this stage. It is possible that (as in Nyikina — Stokes 1982:282) the irrealis future is used when there is less than normal certainty that an event will occur. There is, unfortunately, inadequate evidence to evaluate this possibility.

2.8.2.2.3. Voice prefixes

Two prefixes may occur in this position, a transitive prefix *na- ~ nu- ~ n- ~ a-* and a reflexive/reciprocal prefix *ma-*.

[1] *na- ~ nu- ~ n- ~ a-* TR

As the gloss suggests, this prefix occurs only with transitive inflecting verbs; it always directly follows the pronominal prefix (when the number is minimal), and the number prefix (when the number is augmented). The *na- ~ nu- ~ n-* allomorphs occur with minimal number, *a-* with augmented number, as illustrated by the past tense paradigm of *-RA* 'spear', as shown in Table 8.

	Minimal	Augmented
1	<i>nga-na-ra-ny</i>	<i>nga-rr-a-ra-ny</i>
1&2	<i>ya-na-ra-ny</i>	<i>ya-rr-a-ra-ny</i>
2	<i>mi-na-ra-ny</i>	<i>ku-rr-a-ra-ny</i>
3	<i>na-ra-ny</i>	<i>ngi-rr-a-ra-ny</i>

Table 8: Past tense paradigm of *-RA* 'spear'

The *nu-* allomorph occurs in the third person minimal future, as in *φ-nu-ngka-ra* 's/he will spear it'; it is not clear at this stage what conditions the appearance of the allomorph *n-*.

Not all apparently transitive verbs show *na-* in the minimal number. Those that do include: *-BULAMA* 'take away', *-JALA* 'see', *-NGKA* 'hit', *-KA* 'carry', *-RLI* 'eat', *-MA* 'do', *-MARRA* 'burn', *-MARRIR* 'smell', *-MUNDA* 'extinguish', *-MUNGKA* 'bite', *-NGARI* 'escape', *-NDI* 'catch', *-RA* 'spear', *-WA ~ φ* 'give', *-WARRI* 'dream' and *-WULA* 'tie, connect with'. Apparently transitive verbs which do not take *na-* include *-BILA* 'find' and *-LARRA* 'hear'. In addition, there are a couple of verb roots for which it is not fully certain whether or not they take the TR prefix, including *-JARDI* 'take' and *-JANBA* 'step on'.

As has already been mentioned, a number of verb roots in Warrwa are alternative prefixing — that is, they occur with *na- ~ n- ~ a-* TR in transitive clauses, but without it in intransitive clauses. Among the inflecting verbs for which this prefix is optional are *-MARRA* 'burn, cook' and *-MA* 'say, do, put'. In both cases the meaning difference is quite predictable, with the first gloss being associated with the non-occurrence of *na-* and appropriate to intransitive clauses, the second, with occurrence of *na-* and transitive clauses. Most Nyulnyulan languages appear to have around a score of alternative prefixing roots (e.g. Stokes 1982:256, Hosokawa 1991:122, McGregor forthcoming a), and it would therefore appear highly likely that further fieldwork will uncover many more such roots in Warrwa.

[2] Reflexive/Reciprocal prefix and suffix

Inflecting verbs which take *na- ~ n- ~ a-* TR in transitive clauses may alternatively take the prefix *ma-* when they occur in reflexive/reciprocal clauses. This prefix, however, always cooccurs with the reflexive-reciprocal suffix *-nyji*. When the latter suffix occurs word finally, it seems that the final stop and vowel are usually lost, leaving only the nasal segment; compare, for example, *ngi-rr-ma-ngka-ny* 'they fought together' with *ngi-rr-ma-ngka-nyji-na* 'they were fighting together'. Further examples of reflexive-reciprocal verb forms can be found in §3.2.2.2 below.

2.8.2.2.4. Future tense prefix

Future tense is marked by means of the future form of the relevant pronominal prefix — and in one case, of the TR prefix — as well as by a future tense prefix *ngka- ~ la-* which occurs with some minimal pronominal prefixes. For class I verbs, *ngka-* occurs with 1, 1&2 and 3 persons, as illustrated by *ka-na-ngka-ra* 'I will spear it', *ya-na-ngka-ra* 'we two (you and I) will spear it' and *φ-nu-ngka-ra* 's/he will spear it', while *la-* occurs with 2 minimal, as in *wa-la-ra* 'you will spear it'. For class II verbs, *ngka-* appears to occur only in the 1&2 form, as in *ya-ngka-wula* 'we two (you and I) will come' — compare *ka-wula* 'I will come' and *nga-wula* 'you will come'.

2.8.2.2.5. Epenthetic nasal

Stop initial inflecting verb roots sometimes take an immediately preceding epenthetic nasal. This phenomenon occurs only with stop initial roots and when the "subject" is minimal in number. It is not

known whether nasal epenthesis is ever obligatory, or whether it is a regular or irregular phenomenon (see e.g. Hosokawa 1991:128 for a discussion of irregular nasal epenthesis in Yawuru). Some examples are: *na-m-bulama-na* 'he took her away', *nga-m-bula-ny* 'I came out', and *nga-ng-kardi-n* 'I am entering'. (It is sometimes difficult to determine whether a nasal preceding an inflecting verb root is epenthetic, or an instance of the *n-* allomorph of the transitive prefix.)

2.8.2.3. Verbal suffixes and/or enclitics

2.8.2.3.1. Tense suffixes

[1] *-n* PRES

This suffix marks action which is going on at the time of speaking: *φ-bula-n* 's/he is coming', *i-nga-n* 's/he is', *nga-larra-n* 'I hear him/her/it', etc.. It is the only tense suffix found with non-finite *ma-* forms of inflecting verbs. This suffix does not, however, cooccur with the irrealis prefix, and present irrealis is indicated by the irrealis form of the pronominal plus the irrealis prefix, and no tense suffix, as in *nga-l-jala* 'I might see it'.

[2] *-na* PA₁,

This suffix indicates that the situation occurred at some unspecified time prior to the time of speaking. Examples of its use can be found in the text (§4). It occurs with the irrealis prefix *la-* to indicate past irrealis: that is, in reference to an unrealised situation which belongs to the realm of the past.

[3] *-ny* PA₂

This suffix also indicates that the situation occurred some time in the past. How it differs in meaning from *-na* PA₁ remains unclear, however. One possibility is that the contrast is as in Nyikina, where *-na* is the general past tense marker, while *-ny* marks recent past (Stokes 1982:300), and is likely to be used of events that occurred in the previous six months or so. But as Stokes herself acknowledges, the temporal extent of recent past cannot be precisely defined. Indeed, as line (1) of the text (§4) shows, the event may have occurred many years previously. Examples like this suggest that this morpheme might be better glossed as marking the perfect aspect, as it indicates the present relevance of the event (cf. Stokes 1982:300). It may also be pertinent to observe that the majority of textual instances of *-ny* PA₂ refer to situations which the speaker has personally experienced — and in life-stories this is the normal past tense form found.

2.8.2.3.2. Aspect suffixes

Following the tense suffix there may occur an aspect suffix, indicating that the situation referred to by the clause is or was habitual. There are two known allomorphs, *-rda* ~ *-karda*. The former occurs following the past tense suffix *-na*, and thus the combination indicates that the situation habitually

occurred in the past, but no longer occurs; examples may be found lines (6) and (9) of the text in §4. The second allomorph follows the present tense suffix *-n*, and indicates habitual action which remains habitual as of the time of speaking. As might be expected, the present habitual is employed in generic statements regarding the uses of tools and so on:

(63) miljarn widij ngarrayan -karda buru kinya -ngany
stick dig we:do -HABIT ground this -INST
'Stick is for digging the ground with.'

Nyikina shows a third form which occurs in the future tense (Stokes 1982:301); this is not attested in my Warrwa corpus.

2.8.2.3.3. Subordinator

The suffix *-jarri* ~ *-yarri* is found mainly on subordinate clauses providing temporal location for the situation designated by the preceding or following main clause. The first allomorph occurs following *-ny* PA₂, the second, following *-na* PA₁. See §3.3 for examples.

2.8.2.3.4. Pronominal suffixes

In the Nyulnyulan languages (unlike the neighbouring Worroran and Bunuban languages) the "object" or Goal (§3.2.2.2) of a transitive clause is cross-referenced by an ACC enclitic or suffix, rather than by a prefix, as in:

(64) nangariny -ngayu
it:escaped -lminACC
'It escaped from me.'

There is also a set of oblique pronominal enclitics which attach to inflecting verbs, and indicate an entity which is affected in some way by the event — someone or something benefits by or is disadvantaged by the action, as in:

(65) nganaminjyalany -jiya yuumbal
I:waited -2minOBL long:time
'I've been waiting for you for a long time.'

The forms of the two series of pronominal suffixes or enclitics are given in Table 9 below. As indicated, my corpus does not contain all of the forms of the bound pronominal suffixes, and forms from Capell 1952/1953:453 have been added in to complete the paradigm. The majority of forms given in this table are clearly related to the corresponding nominative and oblique free pronouns; the fact that this holds for Capell's forms for 1&2 minimal and 2 augmented increases the likelihood that they are correct. For the same reason, the two other forms from Capell 1952/1953, *-irra* 1augACC and *-na* 3minACC are less likely, and possibly mistakes — the first looks suspiciously like the 3augACC form;

the second like part of the 3minOBL.

		Minimal	Augmented
1	ACC	-ngay(u)	-yarr(a)
	OBL	-jana	-jarra
1&2	ACC	-yawu†	-yadirr, -irra†
	OBL	-jawu†	-jadirr
2	ACC	-ju(wa) ~ -yu	-kurra†
	OBL	-jiya	-jungkurr
3	ACC	φ, -na†	-yirr(a) ~ -jirr
	OBL	-jina ~ -yina	-jirra

Table 9: Warrwa pronominal suffixes or enclitics

2.8.2.3.5. Number suffix

An inflecting verb may optionally take the suffix (or enclitic) *-wili* ~ *-bili* DU, which indicates dual number.¹⁸ The form *-bili* is found following stops and nasals; *-wili* occurs elsewhere. In most cases the duality referred to is of the single inherent participant in a monovalent clause, as in (66). Only rarely is this suffix found on the verb of a transitive clause, and it is normally the Actor/Agent that is specified as dual in number, as in (67).

(66) kujarra ngankan -kaya ngirrwanin -bili
two talk -CONT they:are -DU
'The two of them are speaking together.'

(67) kurra -wili -na kurrangkany -bili
you:aug -du -ERG you:lot:killed -DU
'You two killed him.'

In fact, the conditions on the occurrence of the dual marker in transitive clauses are rather more complex than this. For one thing, if there is an ACC pronominal enclitic on the verb, then the dual number marker cannot occur as a marker of dual number for the Agent. This means that *-bili* ~ *-wili* can index the dual number of the Agent of a transitive clause only if the Goal is third person. On the other hand, it can index the number of the Goal on condition that it is third person, and the Agent is singular. In this case *-bili* ~ *-wili* DU follows the 3augACC enclitic, as shown by:

(68) wanyjarri -ni wamba jalany -jirr -wili kujarra wamba
one -ERG man he:saw -3augACC -DU two man
'One man saw two men.'

2.8.2.3.6. The suffix *-ngany*

This suffix, which is identical in form with the instrumental postposition, appears to be a type of applicative suffix which adds an extra Goal participant to the clause. Typically, this is a Goal which has been physically moved. Thus, in (69) the added argument is 'their mother', who has been brought along by the policeman; compare this clause with the corresponding intransitive clause (70).

(69) linyju -na nguy jina -ngany -jirr, kuya jirra,
policeman -ERG return he:did -APP -them mother their
'The policeman brought their mother.'

(70) linyju nguy jina
policeman return he:did
'The policeman returned.'

However, in some examples, the added participant appears to be someone or something affected by the situation, either benefiting from it, or being disadvantaged by it:

(71) kirdi -na namarrany -ngany naarda
sun -ERG it:burnt:it -APP eye
'Sun got me in the eye.'

This suffix is also found on preverbs — see page 48 below.

2.8.3. The compound verb construction

2.8.3.1. Preverbs

The present corpus shows some 150 monomorphemic preverbs; it is likely, however, that this number will be at least doubled as more information on the language becomes available — Stokes 1982:190 finds around 400 preverbs in Nyikina; Hosokawa 1991:202, 322 in Yawuru; and McGregor, around 230 in Nyulnyul. Examples of preverbs include: *jub* 'cut', *waarru* 'scratch', *budij* 'light fire', *jid* 'stand', *balngaj* 'slap', *diwir* 'roll over', *kab* 'eat', *kama* 'laugh', and so on. Despite its relatively small size, however, the class of preverbs is open: verbs borrowed from English, such as *waterim* 'water (e.g. a garden)' are borrowed as preverbs, not inflecting verbs. Furthermore, it is possible for words from other parts of speech — primarily nominals and adverbials — to occur in syntagm with inflecting verbs, serving the same function in the construction as do preverbs. This is the case, for instance, for the nominal *kwiina* 'big', which in this function means 'rear, grow someone up'.

Preverbs admit very little morphological modification, only reduplication and some restricted

¹⁸ This same morpheme is found on pronouns — but not on ordinary nouns — where again it indicates dual number (or unit augmented status), except for the 1&2 category, which cannot be marked by this enclitic. (See §2.3 above.)

suffixation. The corpus shows a relatively small number of reduplicated preverbs.¹⁹ Reduplication appears to have the semantic effect of indicating that the process involved a number of repetitions of what might be regarded as a single action type; the process itself is inherently iterative in nature, and is not internally consistent over time. Often it is one which is enacted by a number of different actors on various occasions, as in the case of *kilaykilay* 'chase' in lines (3) and (4) of §4 below, where the process of chasing is being repeated over a number of separate instances over a period of time, by actors who are presumably not acting together. But the process need not necessarily consist of a number of distinct actors. An action repeated by a single actor may also be represented by a reduplicated preverb. For example, the preverb *rung* 'ache' reduplicates to *rungrung* 'ache repeatedly', used in referring to the recurring ache of a toothache, which does not remain a constant and dull sensation. And *kid* 'drag' reduplicates to *kidkid* 'drag along', which might be used in reference to dragging a dog along on a lead behind a person, which is of course also an iterating action; compare also *jub* 'cut' with *jubjub* 'chop up'. Yet another possibility is for the process to consist of a number of repetitions of a single action type enacted separately on a number of entities. Thus, *jid* 'stand' reduplicates to *jidjid* 'stand many things up', which may describe the action of planting cuttings.

A small number of suffixes may be attached to preverbs. The most frequent is *-(ng)kay(a)*, which appears to indicate that the process was continuous — rather than iterated — over a period of time. The meaning conveyed is aspectual, and there is no evidence that the suffix is stem-forming, as is reduplication. These forms of the preverbs normally translate as *-ing* forms of English verbs: *wangkurr-kaya* 'crying', *marurr-ngkaya* 'mustered', *judurr-ngkay* 'sweating'. Examples are:

(72) juku bawa wangkurr -kaya ingan
small child cry -CONT it:is
'Child is crying.'

(73) karriya -ngkay ingan -karda
swear -CONT he:is -HABIT
'He is always swearing.'

Two or three other suffixes are found much less frequently on preverbs. One is *-ngany*, which may presumably be identified as the applicative suffix (see §2.8.2.3.6), both on formal and semantic grounds — it increases the valence of the preverb from one to two. It is attested with just two preverbs, *liyan* 'good, like' and *nganka* 'speak, talk'. Without the suffix, *liyan* (as a preverb) means 'good', and indicates that the Actor is in a good state of being generally; with *-ngany* attached, it means 'like something' — see line (18) of the text. Similarly, *nganka* means 'speak', but with the suffix *-ngany* means 'speak to, tell':

(74) kinya nganka marlu nganka -ngany wilamana
this talk not talk -APP he:might:have:put
'He didn't tell any story.'

What appears to be a suffix *-wan* is sometimes found on the preverb *nganka* 'speak' when reference is being made to an intended speech situation, 'for a talk'; it has not been observed on any other verb. Another possible suffix is *-kurd* which is also restricted to a single preverb, *kama* 'laugh'; *kamakurd* seems to mean 'laugh out'.

Preverbs occasionally occur following the inflecting verb, as in example (75). The reasons for this remain unclear, although it may have something to do with information focus.

(75) ngani mijala
you:sit sit
'Sit down.'

Finally, preverbs are occasionally found independently. The main circumstances seem to be the following two. First, the preverb indicates some activity which occurred concomitant with another situation referred to by a full finite clause; this concomitant activity may constitute a sort of manner:

(76) ngirrany -jirr, wila -n bukbuk, bakalyi -ngany,
they:took -them water -LOC float boat -COMIT
'They took them away, floating on the water.'

The second situation is where the preverb appears to be nominalised or to occur in a nominalised clause, as in:

(77) marlu nila kab may, wajbali -yi may,
not know eat food whites -DAT food
'They didn't know about white people's food; they had never eaten it.'

2.8.3.2. The preverb-inflecting verb construction

As has already been mentioned, preverbs are normally found with inflecting verbs in the preverb-inflecting verb construction. Of the fifty odd inflecting verbs in the present corpus, only about ten are definitely attested in combinations with preverbs, while a couple more may perhaps occur with preverbs. The former class includes: *-BANJI* 'do to self', *-JI* 'say, do', *-KA* 'carry', *-MA* 'do, say', *-NI* ~ *-WANI* ~ *-NGA* 'be', *-ANDI* 'get', *-NGARA* 'become', *-RA* 'spear' *-ARNDI* 'go', and *-WA* ~ ϕ 'give'. The inflecting verb *-MINYJALA* 'wait' possibly also occurs with preverbs.

It is beyond the scope of the present account to describe the complexities of the Warrwa preverb-inflecting verb construction. It seems likely, however, that it will prove to be amenable to the same sort of analysis as I have proposed for Gooniyandi (McGregor 1990:557ff) and Nyulnyul (McGregor 1993c): that is, the inflecting verb functions as a type of verbal classifier, grouping together those processes that show certain characteristics (see also Silverstein 1986 on Worrorra).

¹⁹ Some preverb roots are the reduplications of meaningless formatives; interestingly, the majority of these satisfy the semantic description provided below for reduplication of preverb roots.

3. Syntax

As is well known, in the majority of Australian Aboriginal languages the order of words within a clause is extraordinarily free in the sense that virtually any permutation is normally grammatically acceptable, and does not affect the referential meaning of the clause (although the different orders in some languages at least are motivated by considerations of discourse organisation such as thematisation and focus). It is frequently the case that the constituents of what would appear to be an NP (by virtue of the English gloss) can also be separated from one another by other words in the clause. Such facts have led a number of grammarians to conclude that Australian languages typically show a “flat” constituency structure: clauses have words as their immediate constituents, and there are no intermediate structures comparable to phrases of the more familiar Indo-European languages (e.g. Hale 1981, Blake 1987:77, and Hudson 1984:82).

Warrwa is typical of Australian languages in that it permits considerable freedom of word order. There is, however, evidence that the categories NP and VP (where this is understood as involving the inflecting verb plus preverb and certain manner adverbials — but excluding the “object” and circumstantial elements) are both required. The category of NP is justified by three main considerations: postpositions occur in syntagm with single putative NPs (such syntagms will be referred to as PPs); putative NPs are usually continuous; and the order of words within putative NPs appears to be relatively fixed, and differences in word order convey meaning differences. Evidence for the category of VP comes from the fact that the preverb-inflecting verb combination behaves as a syntactic unit, which is normally continuous, and shows considerable consistency in the order of its elements. In the next two subsections we discuss the structure of Warrwa NPs and clauses respectively; the structure of the VP has already been dealt with in §2.8 above.

3.1. Structure of noun phrases

The following types of NP occur in the Warrwa corpus:

- (a) a nominal by itself, or together with one or two modifying nominals and/or a determiner;
- (b) a nominal together with an oblique pronominal, and an optional NP indicating its possessor;
- (c) a nominal plus a particle;
- (d) a determiner alone;
- (e) a pronoun alone, or together with a number nominal;
- (f) two nominals or pronominals in apposition.

NPs consisting of a single noun, pronoun or determiner, are far more common in the corpus than are NPs consisting of two or more words; indeed, they are around two or three times more frequent. And as (a)-(e) indicate, any word other than a particle that may occur in an NP is capable of occurring alone in an NP as its sole constituent.

The nominal in a single word NP of type (a) may either refer to some entity, as in the NP *wajbal*

‘white person’ of line (3) of the text (§4), or it may denote a quality. For instance, a nominal such as *uba* ‘little’ may be the only constituent of an NP which attributes a quality of another — see line (1) in §4. Where the NP consists of more than one word, nominals specifying qualities almost always precede the nominal they qualify, as in:

- (78) *wirrwin* -barri balya
leaf -COMIT clothes
‘with leaf clothes’
- (79) *ika nimala*
sick hand
‘sore hand’
- (80) *wanyjarri -ngany nimidi*
one -INST leg
‘with one leg’

Determiners precede the nominal they modify as frequently as they follow it.

Type (b) NPs mark possession, both alienable and inalienable — although in the speech of one of the remaining speakers inalienable possession may also be marked by a pronominal prefix or suffix (see §2.2). The possessed nominal usually occurs together with a free oblique pronominal. Either order of constituents is permissible, and in fact both are approximately equally frequent in the corpus. Examples of the order possessed preceding the possessor are in lines (1), (3) and (4) in §4, and of the reverse order, in line (10). If the possessor is in the third person, a possessive NP may also contain an unmarked NP designating the possessor, in addition to the third person singular oblique pronominal, which functions as a type of possessive “copula”. The order of constituents is almost invariably possessor nominal followed by the third person oblique pronominal, followed by the possessed nominal. (81) illustrates this construction, which is found in other Nyulnyulan languages, including Nyulnyul:

- (81) *yangki jina wanangarri kinya*
who his/her money this
‘Whose money is this?’

Type (c) NPs consist of a nominal together with one of the particles *marlu* ‘no, not’ or *maliina* ‘without, nothing’, which always precedes the nominal. *Maliina* ‘without, nothing’ is used in a privative sense, and indicates that no referent entity exists for the phrase; examples are given in §2.5 above and in lines (8) and (10) in §4. By contrast, *marlu* ‘no, not’ negates qualities, as illustrated by (82) below.

- (82) *marlu mawu bilyi wamba*
not good red man
‘No good white man.’

NPs of type (e) consist of either a free pronominal alone, or a free pronoun together with a quantifying nominal. Whereas quantifying nominals almost always precede other nominals, they usually follow pronouns. Thus, *kurrawili kujarra* (you-DU two) is the normal way of expressing ‘you two’;

kujarra kurrawili (two you-DU) 'you two' is attested, but far less frequent.

Type (f) NPs consist of two nominals or pronominals in apposition (as well as possibly another modifying nominal or determiner), one of them being added to the other. An example is (83) below, in which *yaaku* 'husband' and *waangu* 'wife' are juxtaposed, with the postposition *-nyarri* functioning as a conjunction.

- (83) kujarra yaaku waangu -nyarri
two husband wife -COMIT₂
'two (people), husband and wife'

NP discontinuity occurs in Warrwa, but is rare. (84) is one of only a few textual examples, while (85) is elicited.

- (84) bura -n jirra ngirrwanina -yarri, jalu -wan,
camp -LOC them they:sat -SEQ camp -LOC
'They were sitting in that place, in their camp.'

- (85) yaarra ngarrarndany bujumirri
laugNOM we:went all
'We all went.'

In (84) the two discontinuous parts of the NP are both marked by the LOC postposition, in contrast to the situation for continuous NPs, where only one instance of the postposition normally occurs. This is as might be expected, and in keeping with the situation in other Australian languages (although Yawuru is exceptional in that it normally shows only one postposition, even when the phrase is discontinuous — Hosokawa 1991:40-41). McGregor 1993b explores NP discontinuity in Gooniyandi in some detail and concludes that it is functionally motivated; I strongly suspect the same holds for Warrwa, although there are at present too few examples to permit hypotheses to be tested.

3.2. Structure of clauses

3.2.1. Verbless clauses

The vast majority of clauses in the corpus have verbs; only a small proportion do not. These include at least two types. One type is a class of minor clauses such as *Nyaa!* 'Here (take this)' and *bawumawu* 'Come here!' (see §2.5 above).

A second, more significant class of verbless clauses is the class of relational clauses, which consist of two (normally nominal or pronominal) constituents in apposition. Such clauses serve to establish relationships between entities, or between an entity and a quality, property, location, purpose, and so on. Where two entities are related, this is by the relationship of IDENTIFICATION (or equation), as shown in (86), where the second NP identifies the first. Where the relationship is between an entity and a quality or property, this is a relationship of ATTRIBUTION: the property or quality is attributed of the entity, as in (87) and (88). Where the relationship obtains between an entity and a location, the entity is asserted as being located at, or with respect to the given location; this is illustrated by (89). And where it obtains

between an entity and a purpose for which it is used, the entity is asserted as being used for that purpose, as in (90). Except in questions, the usual order is for the identifying, attributing or locating expression to follow the one representing the entity being identified, attributed on or located.

- (86) ngajanu nilawal kinya
my name this
'My name is that.'

- (87) kinya baalu yirdany
this tree long
'This tree is long.'

- (88) kinya iri wamba -ngalya
this woman man -SEM
'This woman is like a man.'

- (89) jana -n waangu jiya
where -LOC wife your
'Where is your wife?'

- (90) dalaw -wurru baalu -yi jub
chop -ASSOC stick -DAT cut
'The axe is for cutting trees.'

Sometimes a nominal representing an attribute of some entity is followed by a complement which indicates the respect in which the quality holds of the entity. This is illustrated in the following two examples. In (91) it is asserted that kangaroos are good in a certain respect; in (92), what is asserted is that the olden-days Aborigines did not know about something — not that they were completely ignorant. (Compare *ngayu nila* (I knowledgeable) 'I know'.)

- (91) kundulu mawu -warri jurrb jan
kangaroo good -COMIT jump it:does
'The kangaroo is a good jumper.'

- (92) marlu nila kab may, wajbali -yi may,
not know eat food whites -DAT food
'They didn't know about eating white people's food.'

3.2.2. Verbal clauses

3.2.2.1 Verbal relational clauses

As examples (86)-(92) above show, no copula verb like *be* is required in Warrwa to connect together two nominals in a predicative relationship. Quite frequently, however, one does find corresponding to a verbless clause, a verbal clause which translates into English in the same way. Thus, corresponding to the verbless clause *ika nimala* [sore hand] '(my) hand is sore' is the verbal clause (93), which involves the inflecting verb *-NGA* 'be'; and corresponding to a verbless clause such as (89) above is the verbal clause (94), which involves this same inflecting verb.

(93) ika ngangam
sick I:am
'I'm sick.'

(94) kijki ingan majaan -kan
joey it:is pouch -LOC
'The joey is in the pouch.'

It seems likely that the verb -NGA 'be' is not an optional copula (as such verbs have frequently been treated in other Australian Aboriginal languages), but is fully meaningful, and serves — in (93) and (94) — to refer to a state-of-affairs in which the speaker and the young kangaroo are respectively engaged in as Actor (see below). That is, it represents a state of being of the Actor, and more particularly, the state of being in which the quality obtains of the Actor, or in which it is in a particular location.

A number of observations lend support to this proposal. First, no such verbal agnates are available for the relationship of identification, which is always expressed by a verbless clause, consistent with the fact that to be identified as something or other is quite independent of the state in which the entity is found. Secondly, there are differences in the classes of qualifying expressions one tends to find in verbless attributive clauses vs. verbal ones. Qualities such as rottenness (see (95)), sickness, tiredness, and the like which are temporary and readily changed tend to be expressed by means of verbal clauses. Those such as length, colour, texture, and so on which are inherent to an entity and are not so readily changed tend to be expressed by means of verbless clauses. Clearly temporary qualities are more liable to be viewed as aspects of the state of being of the entity than are the inherent ones.

(95) mandu ngirany baalu
rotten it:became log
'The log is rotten.'

The spatial location of an entity other than a geographical feature or tree is normally not fixed and for this reason one typically finds its location at a particular place expressed in terms of a verbal clause: the entity is in a state of being at that location. By contrast, the fact that an entity may be used for a particular purpose is quite independent of its state of being. The use an item may be put to, that is, is something quite extrinsic to it, and to its state or being. As this suggests, there are no verbal clauses corresponding to the verbless (90) above.

The above are not absolute rules, but tendencies. Moreover, it is possible for the more inherent qualities also to change over time, as show by (96) below. In such circumstances it is possible for them to occur in verbal clauses as predicted. (It must be noted, however, that in examples such as this the verb is not simply required because the attribute is associated with past time: verbless clauses do not necessarily occur where the time is present.)

(96) miliyarri yirdany ingana miliya juu ngirany
long:time long he:was now short he:became
'He used to be tall; but now he is short.'

Despite the fact that they involve two NPs, (93)–(96) are clearly intransitive: they designate states, and there is no transference of action from one entity to another. The entity which engages in the state is cross-referenced by a pronominal prefix in the verbal complex, and may also be designated by a full NP (unmarked by a postposition), although this NP is frequently ellipsed when it conveys given or predictable information. The other NP or PP in the clause is apparently obligatory (there are no examples in which it has been ellipsed), and designates a quality or location of the entity engaged in the situation. Interestingly, this NP or PP almost always occurs immediately before the verb, while the NP which may designate the entity engaged in the situation may precede or follow both — although the former order appears to be the more frequent.

3.2.2.2. Verbal non-relational clauses

Verbal clauses may refer to other types of activity than states, including: happenings, events, processes, achievements, and so on. They contain an inherent verbal complex which designates the referent activity. In addition, there is one or more inherent arguments or participant roles, as I will call them. These are by definition roles which are cross-referenced by a pronominal prefix or suffix to the verb, and which may simultaneously be filled out by an independent NP. The pronominal prefix or suffix in the inflecting verb is always present; but independent NPs simultaneously denoting the referent thing are not always present, being usually ellipsed under conditions of givenness. The corresponding role that they would have realised if actually present in the clause, however, remains implicit in the clause, and for this reason is referred to as an inherent (as distinct from an obligatory) role. The participant roles and the verbal complex together form the core of the clause. Other items such as PPs and adverbials may be added to convey circumstantial type information, indicating where, when, why, by what means, (etc.) the situation occurred (see §2.6). Particles and enclitics may also be employed to modify the propositional content of the clause.

It seems reasonable to define three distinct participant roles according to the form of the cross-referencing pronominal affix. The role cross-referenced by a nominative pronominal prefix will be referred to as the Actor; that cross-referenced by an accusative suffix is a Goal; and that cross-referenced by an oblique pronominal suffix is an Affected. Very approximately, the Actor is a participant which enacts a situation, intentionally or unintentionally; a Goal is a participant to who action may be directed; and an Affected is a participant who is affected or changed in some way by the occurrence of the situation — they may benefit from it, be adversely affected by it, and so on. Three primary clause types are identifiable in Warrwa according to their inherent participant roles: (a) intransitive clauses, which have a single inherent Actor; (b) transitive clauses, which have an inherent Actor and an inherent Goal; and (c) middle clauses, which have an inherent Actor and an inherent Affected. These three types are illustrated by (97), (98) and (99) respectively:

- (97) juwa jawu minjan
you swim you:do
'You are swimming.'
- (98) yila -na kujuk nankany warli
dog -ERG swallow it:carried:it meat
'The dog swallowed the meat.'
- (99) ngayu -na ngamurunguny -jina kinya wamba
I -ERG I:looked -3minOBL this man
'I looked for this man.'

As (98) and (99) show, when the clause has two inherent participants, the Actor is realised by an ergatively marked PP rather than by an unmarked NP, as is the case for intransitive clauses, which have a single inherent participant. This holds irrespective of the nature of the NP, the status of the event, or whatever (unlike many Pama-Nyungan languages of Australia, Warrwa is not split ergative — Silverstein 1976, Dixon 1979). The other participant role — the Goal or the Affected — is realised by an unmarked NP, which is cross-referenced either by an accusative or by an oblique pronominal suffix in the verbal complex.

Intransitive clauses typically refer to states, inchoative processes, happenings, motion, and many types of non-Goal directed bodily behaviour (such as speech and cognition). The single inherent participant in such clauses, the Actor, is the entity which is engaged in the action. The manner of its engagement varies from active, intentional and deliberate (for many motion and behavioural activities), to passive (for many inchoatives and happenings). But whatever its specific semantic nature, the Actor is still engaged in the action as the central participant. Crucially, the action which the Actor is engaged in is immanent in that entity, and there is no 'transfer' of action to or from another entity.

Reflexive/reciprocal clauses presumably constitute a subclass of intransitive clauses. They involve a preverb plus the special inflecting verb -BANYJI 'act on self', or an inflecting verb in the reflexive/reciprocal voice, the clause shows a single inherent participant role, the Actor, which is cross-referenced by the nominative pronominal prefix and (almost always) realised by an unmarked NP. Reflexive/reciprocal clauses designate actions which are done by an Actor to themselves, or done by a group of actors to one another, as shown by (100) and (101) respectively:

- (100) ngayu warru ngambanyjiny
I scratch I:did:to:myself
'I scratched myself.'
- (101) iri ngirrmangkanyjina baalu -ngkany
women they:fought:together stick -INST
'The women fought together with sticks.'

Transitive clauses refer to induced states, violent actions, induced motion, holding and transfer, many perceptual and cognitive activities (such as seeing, hearing, dreaming, thinking about someone, etc.), bodily functions involving the elimination of waste products, and some communicative activities (such as telling, asking, etc.). Whereas intransitive clauses denote situations in which the action is immanent

in a single entity, and does not extend to anyone else (or outside of a set of entities in the case of reflexive/reciprocals), in transitive clauses it extends out from the Actor and is directed towards the Goal, which must actually be reached for the situation to be said to have occurred. For "material" actions such as hitting, cutting, burning, carrying, and so on, this requirement is obvious. Likewise for cognitive and perceptual processes, except that the connection is not physical; but unless a perceptual or cognitive connection is actually made with the entity, seeing, hearing, etc. cannot have occurred.

Middle clauses resemble transitive clauses except that a different set of pronominal suffixes cross-references the second inherent role. The class of middle clauses in Warrwa is — as in nearby languages — rather smaller than the class of transitive clauses. The major types of situations designated are seeking (as in (99) above), and various types of bodily behaviour and communication which are directed towards some other person as recipient or addressee (see further McGregor 1990:324), as in (102) and (103) below.

- (102) ngayu -na ngandiny -jina kinya wamba ngarnda inyja
I -ERG I:said -3minOBL this man you:go walk
'I said to this man "Go away!'
- (103) ngayu -na warrwaj nganjan -jina (kinya wamba)
I -ERG wave I:do -3minOBL (this man)
'I wave to him (this man).'

As distinct from transitive clauses, middle clauses do not necessarily require a connection to be made between the Actor and the entity the action is directed towards in order for the situation to be truthfully said to have occurred. In (99) the person the speaker looked for need not have been found, and no perceptual (or other) connection need have been established between the two individuals. Similarly in (102) and (103) there is no implication that the addressee was actually "reached". (By contrast, with 'tell' a connection must be made with the Goal.) In middle clauses the action is thus directed towards an Affected participant, who is changed or affected in some way by the action.

It has been stated that a verbal clause in Warrwa can have no more than two inherent participant roles. How then do prototypically ditransitive processes such as giving get represented? As in nearby languages such as Ngarinyin (Rumsey 1982:144) and Gooniyandi (McGregor 1990:335), giving is represented by a transitive clause in which the recipient of the gift is represented as the Goal, and cross-referenced by an accusative — less frequently an oblique — bound pronominal. Both recipient and gift may be realised by unmarked NPs (if they convey new information). Thus:

- (104) ngayu -na nganany yila warli
me -ERG I:gave dog meat
'I gave the meat to the dog.'
- (105) marlu wilana -ngay
not he:might:have:given -lminACC
'He didn't give it to me.'

3.3 Complex sentence constructions

The most common way of forming complex sentences appears to be by parataxis: two or more clauses are simply juxtaposed, with no indication of the temporal, causal, spatial, or whatever, relationship between them, as in the following examples:

- (106) ngarndany store -ngana mangarriy nganandiny
I:went store -ALL food I:got:it
'I went to the shop and got some food,' or 'I went to the shop
to get some food.'
- (107) bangaj nganawan baawa wangkurr jin
smack I:hit:him child cry he:does
'When I smack the child, he cries.'

There is also a hypotactic (subordinate) complex sentence construction involving the verbal suffix *-jarri ~ -yarri* SEQ (see §2.8.2.3.3); cognate suffixes are found in Yawuru (Hosokawa 1991:460) and Nyikina (Stokes 1982:319ff). The *-jarri ~ -yarri* SEQ clause normally functions like a temporal adverbial clause, locating the situation referred to by the main clause as subsequent to the situation referred to by the dependent clause:

- (108) ngambalany -jarri bij nganandiny ngajanu naarda
I:awoke -SEQ open I:got my eyes
'When I woke up I opened my eyes.'
- (109) yila ngarijngarij jan kurdii nandiny -jarri
dog pant it:did run he:did -SEQ
'The dog was panting from running.'

Occasionally, however, the situation designated by the *-jarri ~ -yarri* SEQ clause overlaps temporally with the situation of the main clause. Nevertheless, in such cases the dependent situation always begins prior to the beginning of the situation of the main clause, as illustrated by (110).

- (110) burrkurru kurdii ngandiny -jarri ngangkany wanyjarri yila
car run I:got -SEQ I:hit one dog
'While I was driving along in the car I hit a dog.'

There are other functions for *-jarri ~ -yarri* SEQ dependent clauses, including conditional (as in example (111), kindly provided by Bronwyn Stokes) and relative uses (as in (112)).

- (111) liyan -ngany minama -njarri bakarl yarrowulalma
like -APP you:might:do -SEQ coolamon we:will:make:it
wanyji
later
'If you like we'll make a coolamon later.'

- (112) kinya wamba ngandiny -jarri -kurra miliya ngirndany nyunu
this man I:spoke -SEQ -? today he:went there
'That man I was talking about yesterday just walked along
there.'

Another type of complex sentence involves quotation. Here a clause of speech frames another clause or clauses, indicating that it/they are or were uttered by someone else. The only type of quotation represented in my Warrwa corpus resembles direct quotation: the spoken utterance is reported from the point of view of the reported speaker, as that person might have said it. This is illustrated by:

- (113) wajbal -ma ngirriny -jina jungku warr walama,
white:person -ERG they:said -3minOBL fire make you:will:put
'The white people said to him, "Light a fire!'

However, as in most languages, the framing verb of speech does not always occur:

- (114) marlu nila -yarra, marlu,
not know -we not
'"We don't know" [they said].'

4. Text

The following text, narrated by Maudie Leonard in 1992, is the first text I recorded in Warrwa; it describes how white station workers used to treat her grandmother and grandfather in the early days.

- (1) warany -kan -ka, uba -ngkarra nganganiny -jarri ngayu,
other -LOC -EMP little -ADV I:sat -SEQ I
jabawu ngajanu, ingana, mayar -an, warrkum -kay,
mother's:father my he:sat house -LOC work -CONT
'Before, when I was little, my grandfather was working on a
cattle station.'
- (2) warrkum -kay ingana, mayar -an,
work -CONT he:was house -LOC
'He was working on the station.'
- (3) kinya -yunu, wajbal -rni, kirlaykirlay ngirrana
then -ABL white:person -ERG chase(redup) they:took:her
-ngany waangu jina, stockman -ni wajbal,
-APP wife his stockman -ERG white:person
'Then the white stockmen kept chasing his wife.'
- (4) kirlaykirlay ngirrana -ngany waangu jina,
chase(redup) they:took:her -APP wife his
'The stockmen chased his wife all the time.'

- (5) ngirrawulamana,
they:stole:her
'They used to steal his wife.'
- (6) muk ngirriona -rda kinya,
hit they:did -HABIT him
'They used to belt him.'
- (7) ngirrawulana nyunu birra -n buru,
they:tied:him:up there bush -LOC country
'They tied him up to trees in the bush.'
- (8) ngirrawulana kinya maliina wila, ngajanu jambardu
they:tied:him:up him no water my mother's:father
wajibal -ma,
white:person -ERG
'The white people tied him up without water, my grandfather.'
- (9) jurru -ngkaya ngirwanina -rda,
that:sort:of:thing -CONT they:sat -HABIT
'They used to do that sort of thing all the time.'
- (10) kurdii bulana yab; maliina waangu yab; birra -ngana,
run, he:came away no wife away bush -ALL
'He ran away, without his wife, into the bush.'
- (11) ingana birra -na,
he:was bush -LOC
'He stayed in the bush.'
- (12) nguy jina nguma nandiny; nambulmana -yirra
return he:did? he:did:to:her he:took:her:away -them
wajibali jina waangu,
whites his wife
'He came back and took his wife back.'
- (13) yab widika nankany,
away take:away he:carried:her
'He took her away.'
- (14) kirlaykirlay ngirraana -ngany ngirmangkanyjina -ngany
chase(redup) they:took:him -APP they:fought:together -APP
marlu,
no
'They chased him, and fought one another for her, but without success.'
- (15) kaliya yab, yalmban -kurdany,
finished away south -COMIT
'He's gone now, south.'
- (16) kurdiji nandina,
run he:got
'He started to run.'

- (17) inganiny kaliya bush, birra ingana now,
he:sat finished bush bush he:was now
'He took a spell, being in the bush now.'
- (18) marlu liyan -ngany wilamana -yirr wajbal,
no like -APP he:might:have:put -them white:person
ngirrawulamana -ngany waangu, waangu jina,
they:stole:her -APP wife wife his
'He didn't like those white people because they used to take his wife.'
- (19) kinya -yunu yalmbanu kurrak jina, libirringka -ngana,
this -ABL south flee he:did liveringa -ALL
'His wife went south towards Liveringa station.'
- (20) bulany -jirra waranynganyjina, ... jina -rnirl,
come:out -3augOBL others [correction]-PL
manyjayunu ngirwanina, kinya -n libirringka,
many:people they:were:sitting this -LOC liveringa
'He came out to a big mob of people who were living at Liveringa.'
- (21) kinya -n bulany -jirra,
this -LOC he:came -3augOBL
'He came up to them.'
- (22) linyju -nma ngirmurunguny -jina,
policeman -ERG they:looked -3minOBL
'The policemen were looking for him.'
- (23) ngirmurunguny -jina kinya -n,
they:looked -3minOBL this -LOC
'They looked for him there.'
- (24) ngayak ngirraandiny -jirr,
ask they:got -3augOBL
'The policemen asked them.'
- (25) kinya -rnirl -ma marlu jana -n -ngurdany ingan,
this -PL -ERG not where -LOC -INDEF he:is
'They said, "No, we don't know where he is.'
- (26) ingan nyunu marduwarra,
he:is there river
'"He's down at the river."'
- (27) kinya -na linyju, murunguna -yina,
this -ERG policeman he:looked -3minOBL
'So the policeman went looking for him.'
- (28) jawu jiny wila kinya -n
swim he:did water this -LOC
'He dived into the water.'

- (29) marlu yawarda kaliya; yuurr ngirndany -jina; wajbali
not horse finish? sink he:did -3minOBL white:person
yuurr wilandina,
sink he:nearly:did
'But the horse sank under him, and the white man nearly
went under too.'
- (30) wanyji, lakarr jina kaliya yab ngajanu jabawu,
soon climb he:did finish? away my mother's:father
'But by the time he had climbed up the bank, my grandfather
had disappeared.'
- (31) jabawu kaliya yab, marlu wilandina kinya -n,
mother's:father finish away not he:tried:to:get this -LOC
'(The policeman) didn't get him there.'
- (32) nguy jina kaliya yab, buru -ngana,
return he:did finish away country -ALL
'The policeman went back.'

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